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# 产品手册 (2022)

Product Catalog (2022)

- 20V-1200V 车规级功率器件
- 30V-250V 屏蔽栅沟槽型功率 MOSFET
- 12V-200V 沟槽型功率 MOSFET
- 200V-1050V 超结功率 MOSFET
- 600V-1350V IGBT
- 650V-1700V 功率模块
- 25V-600V 栅极驱动 IC
- 电源管理 IC

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创新在技术



无锡新洁能股份有限公司

WUXI NCE POWER CO.,LTD



## 公司简介 Company Brief Introduction

无锡新洁能专业从事半导体功率器件及功率模块的研发与销售。目前公司主要产品包括：20~1200V 车规级功率器件、650V~1700V 功率模块 (Power Module)、600V~1350V 绝缘栅双极型晶体管 (IGBT)、200V~1050V 超结功率 MOSFET、30V~250V 屏蔽栅沟槽型功率 MOSFET (N 沟道和 P 沟道)、12V~200V 沟槽型功率 MOSFET (N 沟道和 P 沟道)、20V~600V 栅极驱动 IC (Gate Driver IC) 和电源管理 IC，相关核心技术已获得多项专利授权，产品获得江苏省高新技术产品认定。

公司产品凭借低电能损耗、高可靠性品质，已成功进入汽车电子、新能源、5G 通信、工业电子、家用电器、消费电子、LED 照明、安防等市场领域，获得国内外知名公司的认证。公司利用自身技术优势，与国际知名的 8 英寸及 12 英寸晶圆代工厂、封装测试代工厂紧密合作，具备完善的质量管理体系，确保产品的持续优质和稳定供货。公司是国内最早在 12 英寸工艺平台实现沟槽型功率 MOSFET、屏蔽栅功率 MOSFET 量产的企业，也是国内最早同时拥有沟槽型功率 MOSFET、超结功率 MOSFET、屏蔽栅沟槽型功率 MOSFET 及 IGBT 四大产品平台的本土企业之一。

公司是高新技术企业、中国半导体功率器件十强企业 (中国半导体协会 2016 年、2017 年、2018 年、2019 年、2020 年、2021 年)，2021-2022 年连续荣列“福布斯中国创新力企业 50 强”拥有江苏省功率器件工程研究中心、江苏省研究生工作站，注重先进半导体功率器件的研发与产业化，与多所国内高校联合成立半导体功率器件联合研发中心，多项研发成果在 IEEE、ISPSD 等国际期刊/国际会议上发表，并被 SCI、EI 索引。公司将持续加大研发投入，提升产品竞争力，目标成为具有国际竞争力的半导体功率半导体产品与服务供应商。

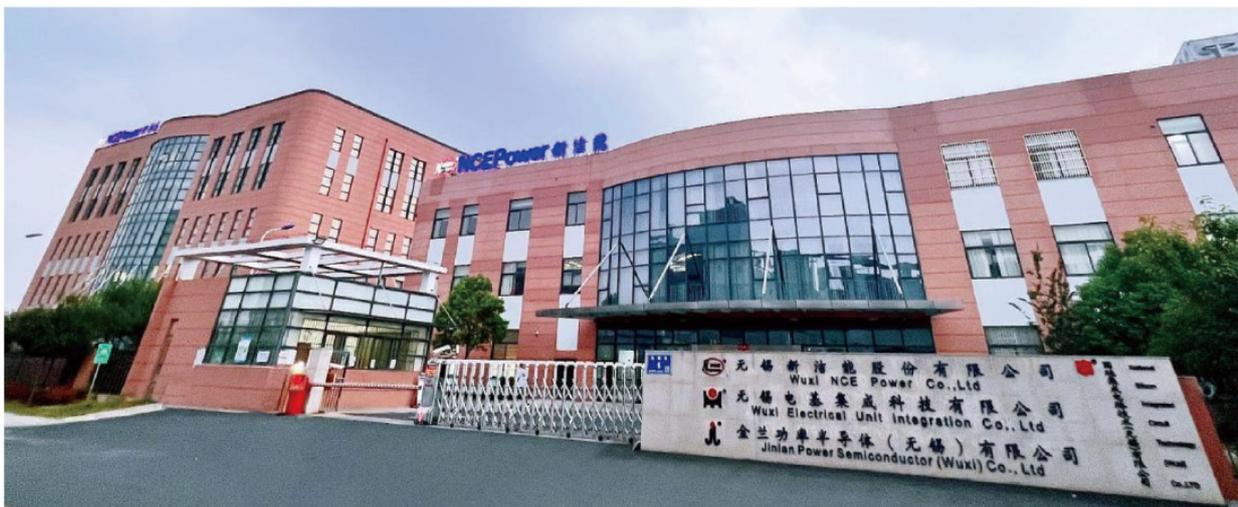
公司总部位于江苏无锡，设有深圳分公司和宁波分公司，拥有新洁能功率半导体 (香港) 有限公司、无锡电基集成科技有限公司、金兰功率半导体 (无锡) 有限公司、国硅集成电路技术 (无锡) 有限公司四家子公司。公司宗旨是诚信对待、忠诚服务所有客户和合作者，致力于建立合作共赢的长期协作关系。

**WUXI NCE POWER CO., Ltd.** is a hi-tech enterprise specializing in R&D and marketing semiconductor power device and power module. We provide 20~1200V Automotive MOSFET&IGBT,650V~1700V Power Module,600V~1350V Insulated Gate Bipolar Transistor (IGBT),200V~1050V Super Junction Power MOSFET,30V~250V Super Trench MOSFET (N channel and P channel),12V~200V Trench Power MOSFET (N channel and P channel), 20V~600V Gate Driver IC and Power Management IC. All the products are completely patented, as well as high-tech product identified.

With high efficiency and excellent reliability, our products have been widely applied in numerous fields, like automotive electronics, new energy,5G communication equipment,industrial electronics, household appliances, consumer electronics, LED lighting, security,etc. Based on our own technologies, we closely cooperate with world leading 8-inch and 12-inch wafer foundries and package & test factories. We have strict quality system, ensuring the product quality and supply ability.The company is the first domestic 12-inch process platform to achieve trench-type MOSFET, shield gate MOSFET mass production enterprises, it is also one of the earliest domestic enterprises with Trench Power MOSFET, Super Junction Power MOSFET, Shield Gate Power MOSFET and IGBT.

NCE Power is awarded as the high and new tech enterprise, and one of the top ten semiconductor power products suppliers (CSIA, 2016, 2017, 2018,2019,2020&2021), have been listed on the "Top 50 Forbes China Most Innovative Companies" for 2021-2022. We have built Jiangsu Power MOSFET Research Center and Jiangsu Graduate Workstation, working on the power MOSFET products development and industrialization. A number of research achievements have been published on IEEE & ISPSD and been indexed by SCI &EI. We keep increasing the R&D investment and improving our competitiveness, to become a worldwide competitive power semiconductor supplier.

We have our headquarter located in Wuxi, Jiangsu; with Shenzhen office and Ningbo office, has four subsidiaries: NCEPower Semiconductor (Hong Kong) Co., Ltd.,EUIT Technology Co., Ltd, Jinlan Power Semiconductor (Wuxi) Co., Ltd., and National Silicon Integrated Circuit Technology (WUXI) Co. LTD. We serve all the customers and partners with great sincerity and loyalty, to build a long term win-win partnership.

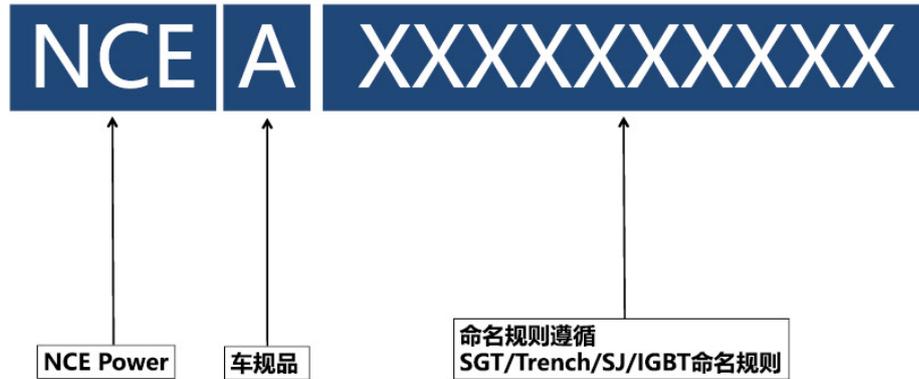


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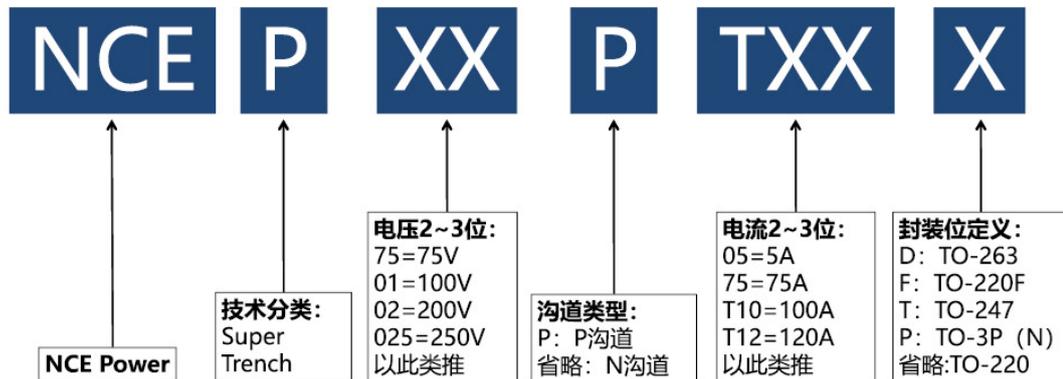
## 命名规则 Product Naming Rule

### 车规级 (Automotive) 功率器件成品命名规则

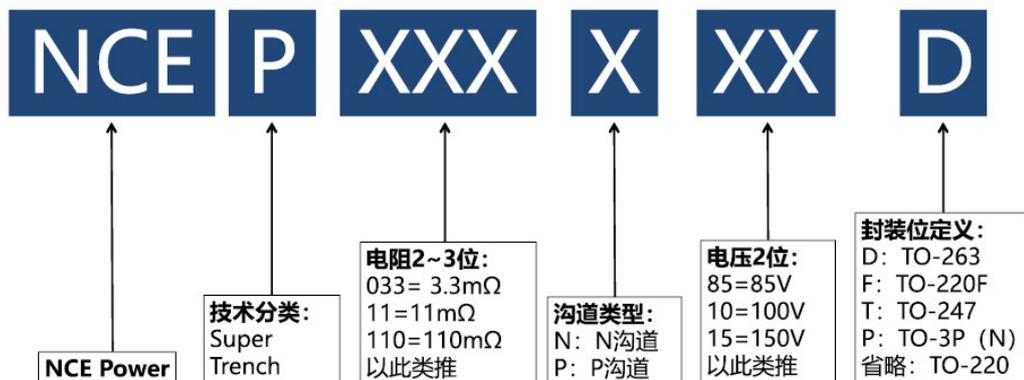


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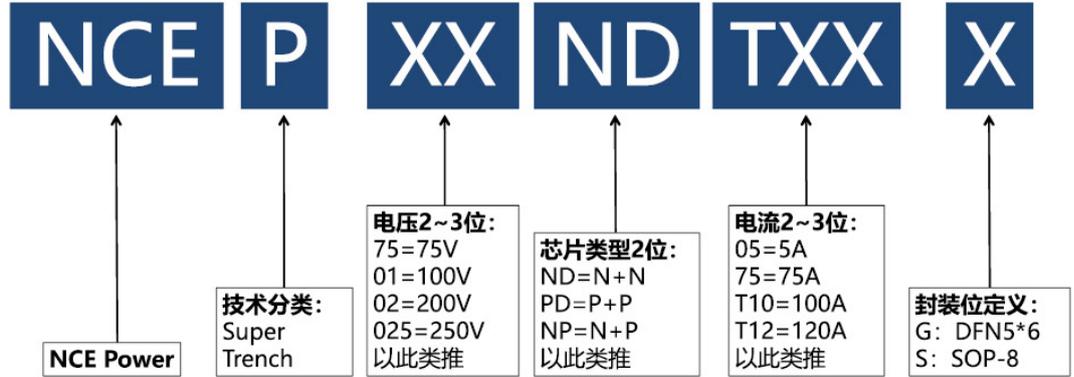
#### (1) SGT 第一代产品



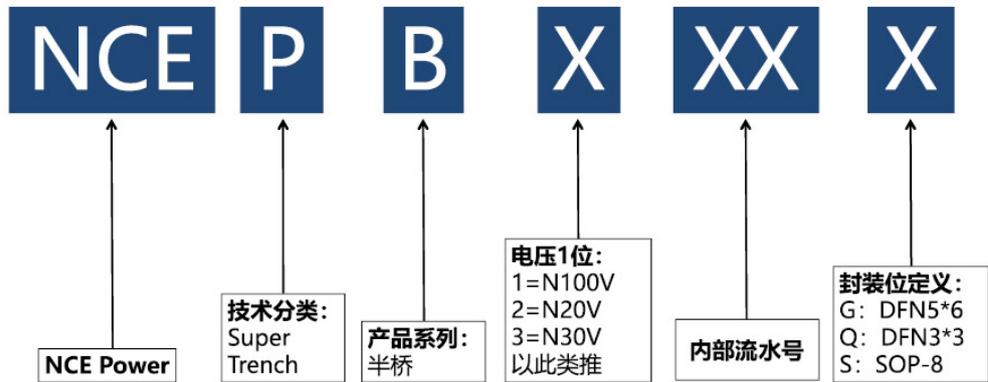
#### (2) SGT 第二代产品



(3) SGT 双芯

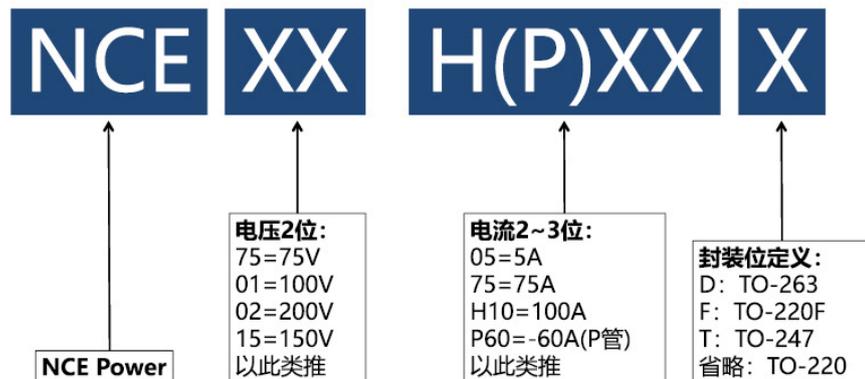


(4) SGT 半桥

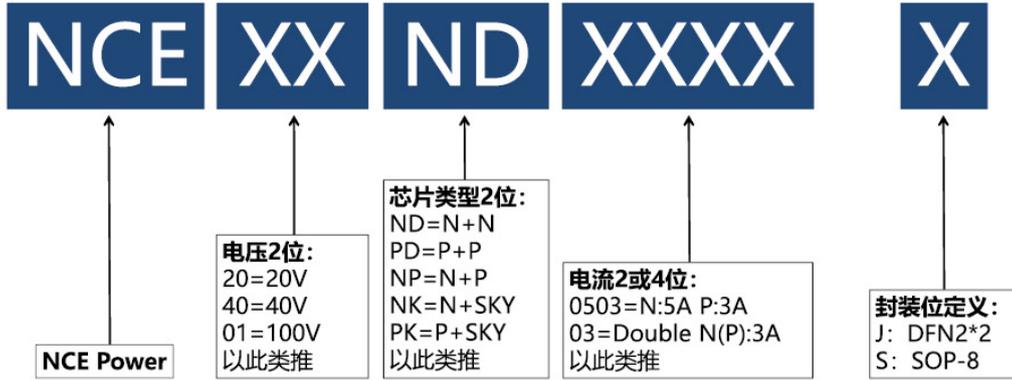


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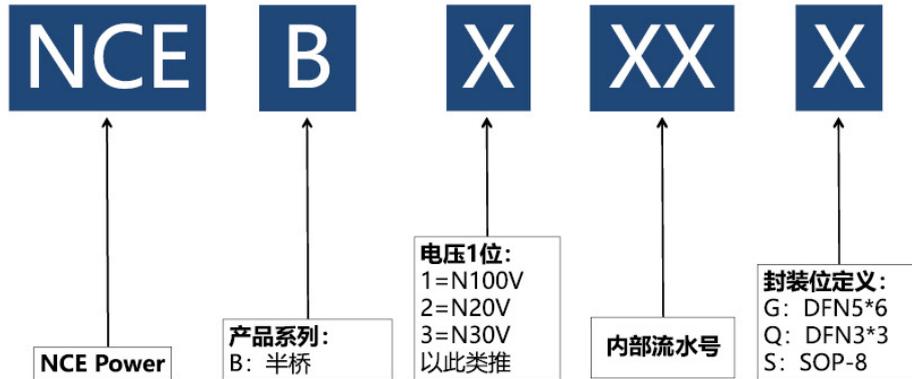
(1) Trench 单芯



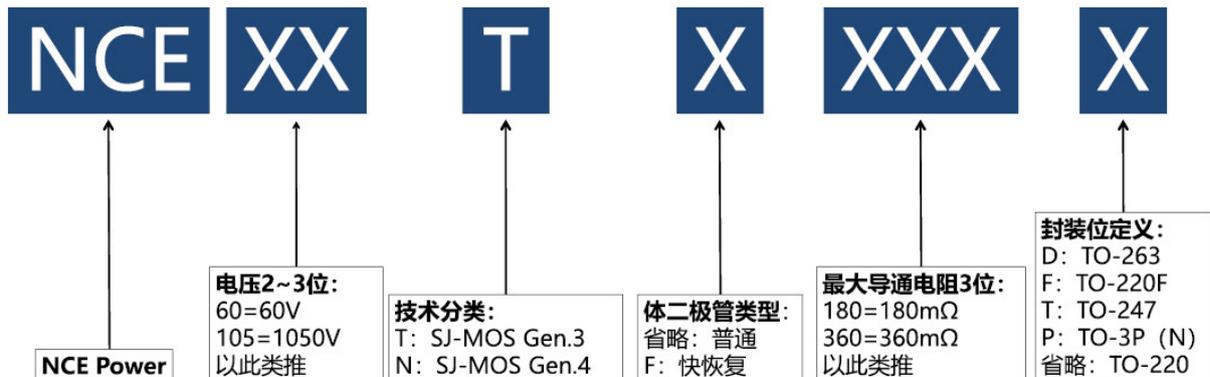
(2) Trench 双芯



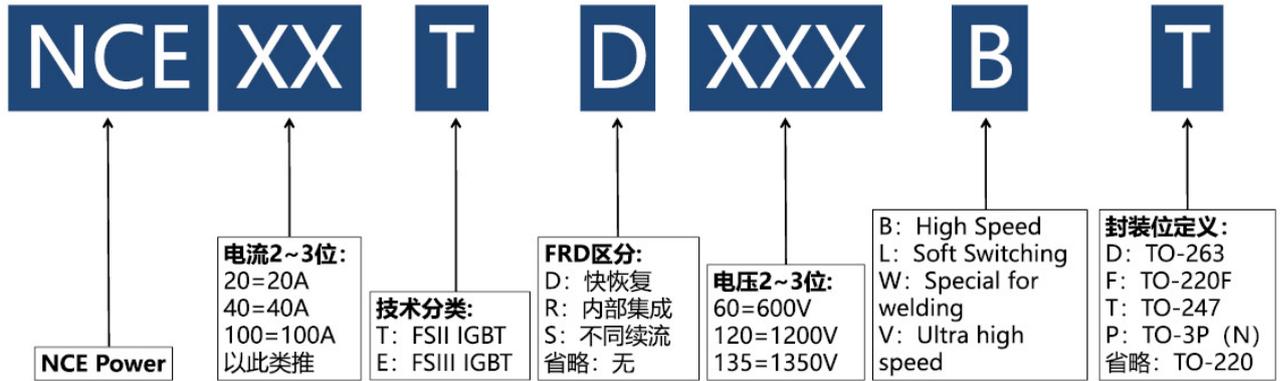
(3) Trench 半桥



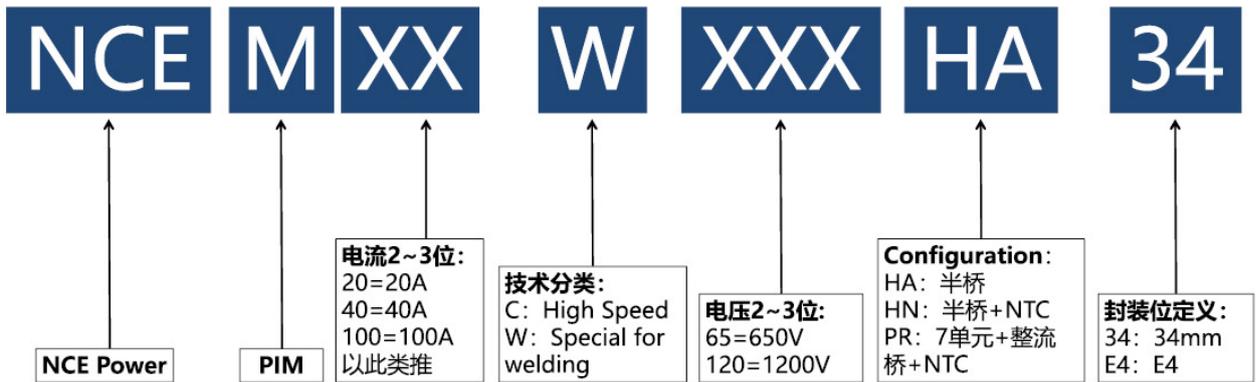
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绝缘栅双极型晶体管（IGBT）成品命名规则



IGBT PIM 成品命名规则

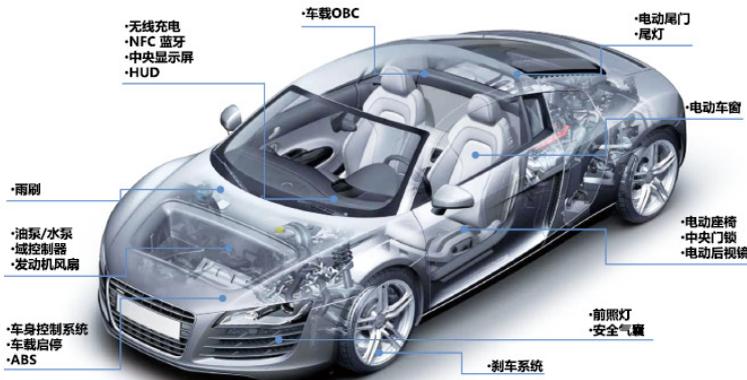


封装缩写说明

封装外形	代码	封装外形	代码	封装外形	代码
TO-92	Z	TO-252/TO-252-4L	K	SOT-223/SOT-223-2L	R
TO-247	T	TO-262	U	SOP-8	S
TO-247 Plus	TP	TO-263	D	DFN2*2	J
TO-220	无	TO-263-6L	VD	DNF3*3	Q
TO-220F	F	TO-264	W	DNF3*3 (Clip)	QU
TO-3P	P	CSP	SP	DFN5*6	G
TOLL	LL	SOT-23	无	DFN5*6 (Clip)	GU
TO-251	I	SOT-23-3L	Y	DFN8*8	V
TO-251S	L	SOT-23-6L	N	TSSOP8	无
TO-3PF	PF	SOT-523	E		
TO-3PNT	PN	SOT-89	M		

## 车规级功率器件 (Automotive MOSFET&IGBT)

新洁能提供质量可靠、品种齐全、性能卓越的车规级功率器件，包含 N 型 MOSFET，P 型 MOSFET，双通道 MOSFET，IGBT，上述车规级功率器件均已满足 AEC-Q101 标准。其中，车规级功率 MOSFET 器件电压覆盖范围为-150V 至 1050V，车规级 IGBT 器件电压覆盖范围为 600V 至 1200V。同时提供 SOT、TO、DFN 等多系列封装外形，包括 SOT-23、TO-252、TO-263、TO-220、TO-247、DFN3\*3、DFN5\*6、TOLL 等。基于基于汽车质量管理体系 (IATF16949)，采用创新及领先的功率器件设计技术，透过产品设计余量，先进及稳定的晶圆制造，一致及可靠的封装制造，全面的质量管理，从 DQE、SQE、CQE、QS 建立质量规范、实施、保持质量管理体系及持续不断改善，广泛应用在汽车上，从电控单元到域控制器，从蓄电池防反接到电池管理系统，从车舱电机驱动到主驱电控，以及各个汽车零部件中，我们为汽车电子设计工程师提供了全面的产品选择。



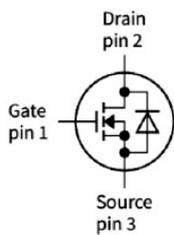
### 质量管控

- APQP 导入
- 生产件批准程序 (PPAP)
- PAT, SPC, SYL, SBL 管控
- 100%加严测试

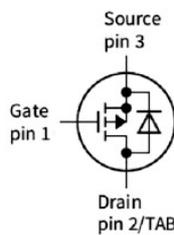
### 特性与优势

- 低导通损耗，高电流能力
- 符合 AEC-Q101 标准
- 结温 175°C，适用于高温严苛环境
- 100% 雪崩测试

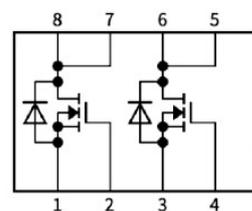
### N-Channel



### P-Channel



### Dual Channel



Polarity	Voltage class (V)	Trench-MOSFET	SGT-MOSFET		SJ-MOSFET		IGBT	
			Gen.1	Gen.2	Gen.3	Gen.4	FS-IGBT II	FS-IGBT III
N-Channel	30		●					
N-Channel	40		●					
N-Channel	60	●	●	●				
N-Channel	85			●				
N-Channel	100		●	●				
N-Channel	150		●					
N-Channel	650				●	●		
N-Channel	1200						●	●
P-Channel	20	●						
P-Channel	40	●	●		●			
P-Channel	60	●			●			
P-Channel	150	●						
Dual N-Channel	2×40		●					
Dual N-Channel	2×60		●					

## 车规级功率 MOSFET (Automotive MOSFET)

### V<sub>ds</sub>: P20V-P60V MOSFET 产品列表

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status	Technology
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)		
-20V	NCEA2301	SOT-23	-3	1	±12	-0.70			64.00	110.00	841.0	3.3	Production	Trench
-40V	NCEAP40P60Q	DFN3*3	-60	85	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New	SGT Gen.1
	NCEAP40P65QU	DFN3*3	-65	91	±20	-1.70	7.80	10.00	11.50	16.00	2450.0	39.0	New	SGT Gen.1
	NCEA40P25G	DFN5*6	-25	42	±20	-1.80	11.50	14.00	18.50	23.00	2960.0	42.2	Production	Trench
	NCEAP40P60G	DFN5*6	-60	90	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New	SGT Gen.1
	NCEAP40P65GU	DFN5*6	-65	96	±20	-1.70	7.80	10.00	11.50	16.00	2450.0	39.0	New	SGT Gen.1
	NCEAP40P80G	DFN5*6	-80	85	±20	-1.60	6.30	7.50	9.00	12.00	3700.0	57.0	Production	SGT Gen.1
	NCEAP40PT15G	DFN5*6	-150	150	±20	-1.20	2.80	3.50	3.90	6.00	8940.0	104.4	Production	SGT Gen.1
	NCEAP40P60K	TO-252	-60	125	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New	SGT Gen.1
	NCEAP40P80K	TO-252	-80	150	±20	-1.40	7.20	8.80	11.00	14.00	3700.0	57.0	Production	SGT Gen.1
	NCEAP40PT12K	TO-252	-120	250	±20	-1.60	4.55	5.45	7.00	9.50	7060.0	83.0	New	SGT Gen.1
	NCEAP40P80D	TO-263	-80	125	±20	-1.40	5.60	6.20	7.60	9.10	3700.0	57.0	New	SGT Gen.1
	NCEAP40PT13D	TO-263	-130	220	±20	-1.60	3.55	4.45	5.00	7.50	7060.0	83.0	New	SGT Gen.1
NCEAP40PT15D	TO-263	-150	250	±20	-1.60	2.80	3.40	3.80	4.60	8940.0	104.4	Production	SGT Gen.1	
-60V	NCEA60P28AK	TO-252	-28	80	±20	-1.50	43.00	48.00	48.00	55.00	1477.0	30.8	Production	Trench
	NCEA60P82AK	TO-252	-82	150	±20	-1.80	11.00	13.00	13.00	16.00	5604.0	62.1	Production	Trench

## 车规级功率 MOSFET (Automotive MOSFET)

 V<sub>DS</sub>: N30V-N650V MOSFET 产品列表

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status	Technology	
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)			
30V	NCEAP3045GU	DFN5*6	45	31	±20	1.50	5.80	6.40	6.40	10.00	822.0	15.0	New	SGT Gen.1	
	NCEAP3065GU	DFN5*6	65	62	±20	1.50	1.90	2.30	2.30	3.60	2100.0	34.8	New	SGT Gen.1	
	NCEAP30T13GU	DFN5*6	130	124	±20	1.70	1.70	2.20	2.20	3.20	2394.0	39.6	New	SGT Gen.1	
	NCEAP30T15GU	DFN5*6	150	147	±20	1.70	1.50	1.90	1.90	2.50	3372.0	55.0	New	SGT Gen.1	
	NCEAP30T17GU	DFN5*6	170	160	±20	1.50	0.97	1.20	1.25	1.50	5300.0	90.0	Production	SGT Gen.1	
	NCEAP30T21GU	DFN5*6	210	204	±20	1.50	0.72	0.85	0.85	1.10	8085.0	137.0	New	SGT Gen.1	
40V	NCEAP4045GU	DFN5*6	45	33	±20	1.60	6.00	6.60	8.50	10.00	831.0	17.6	Production	SGT Gen.1	
	NCEAP4090GU	DFN5*6	90	96	±20	1.50	2.20	2.75	3.30	4.00	2300.0	40.0	New	SGT Gen.1	
	NCEAP4090AGU	DFN5*6	90	96	±20	3.00	2.90	3.40			1695.0	28.0	New	SGT Gen.1	
	NCEAP40T11G	DFN5*6	110	120	±20	1.70	2.20	2.80	3.30	4.00	3510.0	60.0	Production	SGT Gen.1	
	NCEAP40T11AG	DFN5*6	110	120	±20	3.00	2.50	3.20			2750.0	38.5	New	SGT Gen.1	
	NCEAP40T12GU	DFN5*6	120	124	±20	1.70	2.05	2.35	3.10	3.60	2250.0	44.0	New	SGT Gen.1	
	NCEAP40T12AGU	DFN5*6	120	124	±20	2.80	2.05	2.35			1820.0	24.0	New	SGT Gen.1	
	NCEAP40T13GU	DFN5*6	130	147	±20	1.70	1.80	2.30	2.80	3.60	3334.0	58.5	New	SGT Gen.1	
	NCEAP40T13AGU	DFN5*6	130	147	±20	2.80	1.80	2.30			2100.0	28.0	New	SGT Gen.1	
	NCEAP40T14G	DFN5*6	140	160	±20	1.50	1.60	1.90	2.30	2.65	5000.0	90.0	Production	SGT Gen.1	
	NCEAP40T15GU	DFN5*6	150	160	±20	1.50	1.09	1.45	1.50	1.85	5200.0	91.0	Production	SGT Gen.1	
	NCEAP40T15AGU	DFN5*6	150	160	±20	3.00	1.15	1.45			4135.0	62.0	Production	SGT Gen.1	
	NCEAP40T17AG	DFN5*6	170	180	±20	3.00	1.40	1.70			5150.0	80.0	Production	SGT Gen.1	
	NCEAP40T20AGU	DFN5*6	200	220	±20	3.00	0.85	1.15			5834.6	91.0	Production	SGT Gen.1	
	NCEAP40ND80G	DFN5*6	80	83	±20	1.60	4.30	5.00				2300.0	34.8	Production	SGT 双芯
		Dual N													
	NCEAP40ND80AG	DFN5*6	80	83	±20	3.00	4.70	5.40				1695.0	28.0	New	SGT 双芯
		Dual N													
	NCEAP40ND90G	DFN5*6	90	96	±20	1.70	3.80	4.50	5.00	6.00		3510.0	60.0	New	SGT 双芯
		Dual N													
	NCEAP40ND90AG	DFN5*6	90	96	±20	3.00	4.20	4.90				2290.0	39.5	New	SGT 双芯
		Dual N													
	NCEAP40T11AK	TO-252	110	150	±20	3.00	3.20	4.20				2750.0	38.5	Production	SGT Gen.1
	NCEAP40T11K	TO-252	110	150	±20	1.70	2.40	3.50	3.30	4.80	3510.0	60.0	Production	SGT Gen.1	
	NCEAP40T17AD	TO-263	170	250	±20	3.00	1.40	1.70				5670.0	88.6	Production	SGT Gen.1
	NCEAP40T20AD	TO-263	200	270	±20	3.00	1.30	1.60				5834.6	91.0	Production	SGT Gen.1
NCEAP40T35AVD	TO-263	350	380	±20	3.00	0.68	0.88				12850.0	156.5	Production	SGT Gen.1	
NCEAP40T20ALL	TOLL	200	300	±20	3.00	1.10	1.35				5834.6	91.0	New	SGT Gen.1	
NCEAP40T35ALL	TOLL	350	500	±20	3.00	0.63	0.80				11669.0	182.0	Production	SGT Gen.1	

## 车规级功率 MOSFET (Automotive MOSFET)

### V<sub>DS</sub>: N30V-N650V MOSFET 产品列表

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status	Technology	
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)			
60V	NCEAP6040AGU	DFN5*6	40	51	±20	1.70	11.50	13.00	14.50	16.80	1010.0	21.8	New	SGT Gen.1	
	NCEA6042AG	DFN5*6	42	53	±20	1.60	12.00	14.00	16.00	19.00	1630.0	39.0	Production	Trench	
	NCEAP6055AGU	DFN5*6	55	73	±20	1.80	6.50	7.50	7.70	8.80	2000.0	34.8	New	SGT Gen.1	
	NCEAP6060AGU	DFN5*6	60	79	±20	1.80	5.30	6.00	6.50	7.80	2100.0	36.6	New	SGT Gen.1	
	NCEAP6090AGU	DFN5*6	90	120	±20	1.70	2.80	3.50	3.50	4.50	4000.0	67.0	Production	SGT Gen.1	
	NCEAP60T15AG	DFN5*6	150	226	±20	1.60	2.70	3.00	3.10	3.50	5900.0	98.0	New	SGT Gen.1	
	NCEAP025N60AG	DFN5*6	165	175	±20	1.70	2.00	2.50	2.50	3.70	6540.0	99.5	Production	SGT Gen.2	
	NCEAP020N60AGU	DFN5*6	180	230	±20	1.70	1.80	2.15	2.50	3.00	6540.0	105.0	New	SGT Gen.2	
	NCEAP018N60AGU	DFN5*6	195	249	±20	1.70	1.60	2.00	2.20	2.70	6150.0	103.0	New	SGT Gen.2	
	NCEAP60ND60G	DFN5*6	Dual N	55	79	±20	3.00	7.80	8.50			1700.0	26.9	New	SGT 双芯
	NCEAP068ND60G	DFN5*6	Dual N	60	79	±20	3.00	5.90	6.80			1700.0	28.2	New	SGT 双芯
	NCEAP068ND60AG	DFN5*6	Dual N	60	79	±20	1.70	5.90	6.80	7.20	9.00	2145.0	38.0	New	SGT 双芯
	NCEA6050KA	TO-252		50	85	±20	1.60	12.00	13.80	16.00	19.20	1630.0	39.0	Production	Trench
	NCEAP60T12AD	TO-263		120	180	±20	1.70	3.50	4.30	4.00	5.30	4000.0	67.0	Production	SGT Gen.1
	NCEAP60T20D	TO-263		200	255	±20	3.00	1.80	2.20			9200.0	130.0	Production	SGT Gen.1
	NCEAP018N60D	TO-263		210	255	±20	3.00	1.50	2.00			9433.0	141.0	New	SGT Gen.2
	NCEAP016N60VD	TO-263		305	300	±20	3.00	1.10	1.60			9433.0	141.0	Production	SGT Gen.2
A2N7002K	SOT-23		0.3	0.35	±20	1.30	1800.00	2200.00	1950.00	3000.00	21.0	1.7	Production	Trench	
NCEAP60ND30AG	DFN5*6		30	48	±20	1.70	12.00	14.00	15.00	17.50	1010.0	21.8	Production	SGT 双芯	
85V	NCEAP16N85AK	TO-252	55	138	±20	1.70	11.50	16.00	15.00	24.00	1600.0	31.0	Production	SGT Gen.2	
	NCEAP028N85D	TO-263	200	245	±20	3.00	2.40	2.80			7680.0	124.0	Production	SGT Gen.2	
	NCEAP018N85LL	TOLL	320	380	±20	3.00	1.30	1.80			14500.0	240.0	Production	SGT Gen.2	
	NCEAP016N85LL	TOLL	360	460	±20	3.00	1.20	1.60			15800.0	245.0	New	SGT Gen.2	
	NCEAP012N85LL	TOLL	400	500	±20	3.00	1.00	1.20			19200.0	284.0	New	SGT Gen.2	

## 车规级功率 MOSFET (Automotive MOSFET)

### V<sub>DS</sub>: N30V-N650V MOSFET 产品列表

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status	Technology
			T <sub>j</sub> =25°C	T <sub>j</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)		
100V	NCEAP25N10AK	TO-252	35	65	±20	1.70	21.00	25.00	26.00	30.00	1317.6	27.6	New	SGT Gen.2
	NCEAP0135AK	TO-252	35	70	±20	2.00	18.00	23.00	22.00	27.00	1600.0	26.0	Production	SGT Gen.1
	NCEAP0178AK	TO-252	78	125	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production	SGT Gen.1
	NCEAP068N10AK	TO-252	82	108	±20	1.70	6.60	6.80	8.20	9.80	4680.0	76.0	New	SGT Gen.2
	NCEAP065N10AK	TO-252	85	115	±20	1.70	6.00	6.50	7.70	9.00	5580.0	83.0	New	SGT Gen.2
	NCEAP026N10T	TO-247	230	300	±20	3.00	2.15	2.60			17500.0	240.0	Production	SGT Gen.2
	NCEAP023N10T	TO-247	280	365	±20	3.00	1.85	2.30			17000.0	252.0	New	SGT Gen.2
	NCEAP026N10LL	TOLL	280	360	±20	3.00	2.00	2.60			13700.0	185.0	New	SGT Gen.2
	NCEAP023N10LL	TOLL	300	380	±20	3.00	1.70	2.30			17500.0	240.0	New	SGT Gen.2
	NCEAP020N10LL	TOLL	330	400	±20	3.00	1.50	2.00			17000.0	252.0	Production	SGT Gen.2
150V	NCEAP016N10LL	TOLL	385	500	±20	3.00	1.20	1.60			23100.0	285.0	New	SGT Gen.2
	NCEAP15T14	TO-220	140	320	±20	3.00	5.80	6.50			5500.0	80.0	New	SGT Gen.1
	NCEAP15T14D	TO-263	140	320	±20	3.00	5.60	6.40			5500.0	80.0	Production	SGT Gen.1
650V	NCEAP15T14LL	TOLL	170	380	±20	3.00	5.00	5.80			5500.0	80.0	Production	SGT Gen.1
	NCEA65TF099T	TO-247	38	364	±30	3.50	89.00	99.00			28000.0	45.0	Production	SJ Gen.3
	NCEA65TF078T	TO-247	45	453	±30	3.50	58.00	78.00			4000.0	65.0	Production	SJ Gen.3
	NCEA65NF036T	TO-247	70	553	±20	4.00	30.00	36.00			5410.0	102.0	Production	SJ Gen.4

## 车规级功率 IGBT (Automotive IGBT)

### V<sub>CE</sub>: 1200V IGBT 产品列表

Voltage	Part Number	Package	I <sub>C</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V)		Switching Frequency	T <sub>sc</sub>	Part Status	Technology
			T <sub>j</sub> =100°C	T <sub>j</sub> =25°C	(V)	(V)	@V <sub>GE</sub> =15V, 25°C			(us)		
					(V)	(V)	Typ	Max				
1200V	NCEA15TD120BT	TO-247	15	300	30	5.50	1.55	1.80	1~20KHz	10	Production	FS-IGBT II
	NCEA25TD120BT	TO-247	25	365	30	5.50	1.55	1.80	1~20KHz	10	Production	FS-IGBT II
	NCEA40TD120BT	TO-247	40	468	30	5.50	1.55	1.80	1~20KHz	10	Production	FS-IGBT II
	NCEA40TD120LT	TO-247	40	468	30	5.50	1.50	1.75	1~10KHz	/	Production	FS-IGBT II
	NCEA40ED120BT	TO-247	40	468	30	5.50	1.50	1.75	1~20KHz	10	Production	FS-IGBT III
	NCEA50TD120BT	TO-247	50	535	30	5.50	1.55	1.80	1~20KHz	10	Production	FS-IGBT II
	NCEA60TD120UT	TO-247	60	667	30	5.50	1.95	2.30	15~40KHz	5	Production	FS-IGBT II
	NCEA75TD120BT	TO-247	75	833	30	5.50	1.55	1.80	1~20KHz	10	Production	FS-IGBT II
	NCEA25TD120VTP	TO-247P	25	365	30	5.00	1.70	1.95	10~40KHz	/	Production	FS-IGBT II

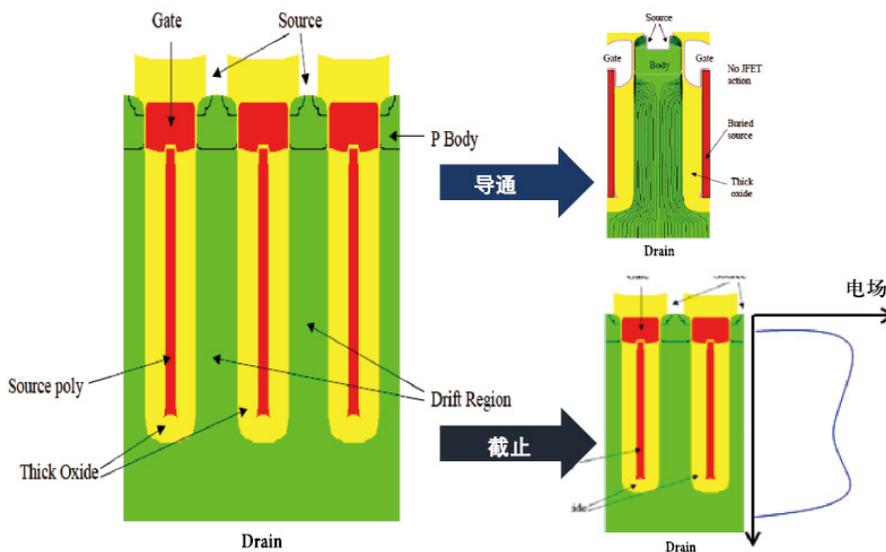
## 屏蔽栅沟槽型功率器件 (Super Trench MOSFET)

Super Trench MOSFET 系列产品采用了具有电荷平衡功能的屏蔽栅深沟槽 (Super Trench) 技术, 全面提升了器件的开关特性和导通特性, 同时降低了器件的特征导通电阻 ( $R_{sp}$ ) 和栅极电荷 ( $Q_g$ )。

Super Trench 技术全面提升了产品的导通电阻温度特性, 有效控制了器件导通电阻随温度增加而上升的幅度, 以 100V 产品为例, 对比普通沟槽型 MOSFET 产品, Super Trench 技术将器件 175 度下的导通电阻倍增因子 ( $R_{dson}@Tc=175^\circ C/R_{dson}@Tc=25^\circ C$ ) 由原有的 2.29 降低为 2.09, 从而显著增强器件高温下的电流能力和抗冲击特性。Super Trench MOSFET 产品将更适宜于高温严酷环境下的应用!

目前, 新洁能已推出第二代屏蔽栅沟槽型功率 MOSFET, 相比于第一代产品, 第二代产品特征导通电阻降低 20% 以上, ESD 能力、大电流关断能力、短路能力提升 20% 以上, 具有更低的栅极电阻, 可以满足客户更高能效、更高可靠性的需求, 产品的性价比也进一步提升。

配合先进的封装技术, Super Trench 技术致力于提升 MOSFET 器件在电能转换过程中的系统效率和功率密度, 同时确保在苛刻环境下开关过程中的抗冲击耐量, 实现快速、平稳、高效的电源管理和电机控制。

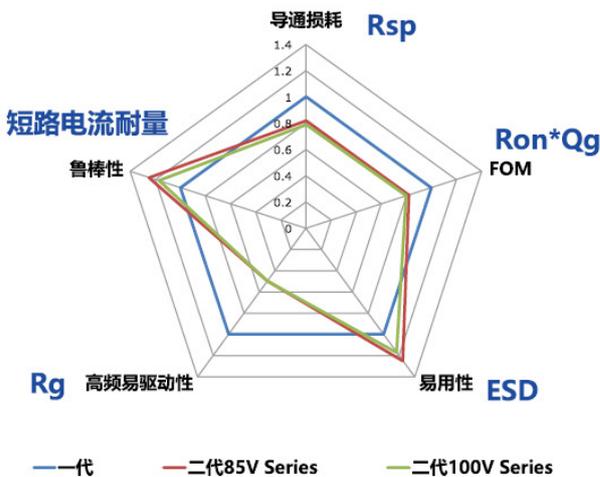


### 特点与优势

- 极低的  $R_{dson}$
- 极低的  $Q_g$  和  $Q_{gd}$
- 极低的 FOM ( $R_{dson} * Q_g$ )
- 高温下的电流能力更强
- 快速柔软恢复的体二极管特性
- 低  $C_{rss}/C_{iss}$ , 增强抗 EMI 能力
- 高 UIS 耐量, 100% 出厂测试
- 符合 RoHS 标准

### 应用

- 交流/直流电源的同步整流
- 直流电机驱动
- 电池充电器和电池保护电路
- 逆变器
- 隔离的直流-直流转换器
- 不间断电源



### Gen.2 特点与优势

- $R_{sp}$  比 Gen.1 降低 20%, 对标 OptiMOS 5
- FOM 比 Gen.1 降低 20%
- $R_g$  比 Gen.1 更低, 一致性更高
- 大电流关断能力比 Gen.1 提升 20%
- ESD 能力比 Gen.1 提升 20%

### Gen.2 典型应用

- 12V~144V 系统中的电机马达控制
- 锂电池保护电路
- 4G/5G 通讯基站电源, 服务器电源
- AC/DC 同步整流
- UPS 电源

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

### V<sub>DS</sub>: N60V-N72V 产品列表(SGT- MOS II)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>o</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on</sub> 10	R <sub>on</sub> 10	R <sub>on</sub> 4.5	R <sub>on</sub> 4.5	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
60V	NCEP060N60	TO-220	90	65	150	±20	3.00	5.20	6.00			1700.0	28.2	New
	NCEP035N60A	TO-220	130	100	180	±20	1.70	2.80	3.50	3.50	4.50	4000.0	73.0	Production
	NCEP035N60	TO-220	130	100	180	±20	3.00	2.50	3.50			3400.0	51.5	Production
	NCEP025N60	TO-220	190	142	220	±20	3.00	2.25	2.65			5190.0	78.0	Production
	NCEP020N60	TO-220	200	150	235	±20	3.00	2.20	2.60			5200.0	79.0	New
	NCEP020N60A	TO-220	200	150	235	±20	1.70	2.15	2.50	2.65	2.90	6150.0	103.0	New
	NCEP018N60	TO-220	210	157	255	±20	3.00	1.70	2.00			9433.0	141.0	Production
	NCEP025N60D	TO-263	190	142	220	±20	3.00	2.25	2.65			5190.0	78.0	Production
	NCEP020N60D	TO-263	200	150	235	±20	3.00	2.20	2.60			5200.0	79.0	New
	NCEP020N60AD	TO-263	200	150	235	±20	1.70	2.15	2.50	2.60	2.90	6150.0	103.0	New
	NCEP018N60D	TO-263	210	157	255	±20	3.00	1.50	2.00			9433.0	141.0	Production
	NCEP016N60VD	TO-263-6L	305	215	300	±20	3.00	1.10	1.60			9433.0	141.0	New
	NCEP015N60LL	TOLL	340	240	350	±20	3.00	1.00	1.50			9433.0	141.0	Production
	NCEP018N60T	TO-247	210	157	255	±20	3.00	1.70	2.00			9433.0	141.0	Production
	NCEP060N60G	DFN5*6	70	50	65	±20	3.00	5.20	6.00			1700.0	28.2	Production
	NCEP060N60AG	DFN5*6	70	50	65	±20	1.70	5.20	6.00	6.40	8.00	2145.0	38.0	New
	NCEP055N60GU	DFN5*6	75	55	70	±20	3.00	4.20	5.00			1700.0	28.2	Production
	NCEP035N60G	DFN5*6	90	63.6	85	±20	3.00	2.80	3.50			3400.0	51.5	Production
	NCEP035N60AG	DFN5*6	90	63.6	85	±20	1.70	2.80	3.5	3.5	4.50	4000.0	73.0	Production
	NCEP030N60GU	DFN5*6	95	67	90	±20	3.00	2.50	3.00			3400.0	51.5	Production
	NCEP030N60AGU	DFN5*6	95	67	90	±20	1.70	2.20	2.80	3.00	3.60	4000.0	73.0	Production
	NCEP025N60G	DFN5*6	165	115	200	±20	3.00	2.10	2.50			5190.0	78.0	Production
	NCEP025N60AG	DFN5*6	165	115	200	±20	1.70	2.00	2.50	2.50	3.70	6540.0	105.0	Production
	NCEP020N60GU	DFN5*6	180	126	205	±20	3.00	1.80	2.15			5190.0	78.0	Production
NCEP020N60AGU	DFN5*6	180	126	205	±20	1.70	1.80	2.15	2.50	3.00	6540.0	105.0	Production	
NCEP018N60GU	DFN5*6	195	135	220	±20	3.00	1.60	2.00			5200.0	79.0	New	
NCEP018N60AGU	DFN5*6	195	135	220	±20	1.70	1.60	2.00	2.20	2.70	6150.0	103.0	New	
NCEP060N60AK	TO-252	90	65	115	±20	1.70	5.20	6.00	6.40	8.00	2145.0	38.0	New	
NCEP035N60K	TO-252	130	100	140	±20	3.00	2.80	3.50			3400.0	51.5	Production	
NCEP035N60AK	TO-252	130	100	140	±20	1.70	2.80	3.50	3.50	4.50	4000.0	73.0	Production	
72V	NCEP048N72	TO-220	110	85	155	±20	3.00	3.90	4.30			3200.0	48.8	Production
	NCEP035N72	TO-220	140	108	185	±20	3.00	3.30	3.50			4250.0	67.5	Production
	NCEP035N72GU	DFN5*6	120	92	90	±20	3.00	2.40	3.50			4250.0	67.5	Production

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

V<sub>DS</sub>: N85V-N200V 产品列表(SGT-MOS II) (产品名后带“M”: 电控应用优先推荐)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C	T <sub>J</sub> =25°C		(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
85V	NCEP080N85	TO-220	80	60	100	±20	3.30	7.50	8.00			2059.0	41.4	Production
	NCEP065N85	TO-220	90	68	120	±20	3.30	5.90	6.50			3100.0	51.0	Production
	NCEP058N85	TO-220	95	72	125	±20	3.00	5.40	5.80			3550.0	67.0	Production
	NCEP055N85	TO-220	105	80	130	±20	3.00	4.80	5.50			3700.0	57.0	Production
	NCEP050N85	TO-220	115	88	140	±20	3.00	4.70	5.00			3900.0	70.0	Production
	NCEP048N85	TO-220	120	92	150	±20	3.00	4.45	4.80			3780.0	71.0	Production
	NCEP040N85	TO-220	140	105	200	±20	3.00	3.50	4.00			4950.0	88.0	Production
	NCEP040N85M	TO-220	140	105	200	±20	3.00	3.40	3.90			4050.0	75.0	Production
	NCEP035N85	TO-220	150	112	210	±20	3.00	3.30	3.50			5860.0	96.0	Production
	NCEP033N85	TO-220	160	120	220	±20	3.00	3.10	3.30			7200.0	115.0	Production
	NCEP028N85	TO-220	200	150	245	±20	3.00	2.55	2.80			7680.0	124.0	Production
	NCEP026N85	TO-220	240	170	270	±20	3.00	2.20	2.60			13400.0	172.0	Production
	NCEP023N85	TO-220	260	195	300	±20	3.00	2.00	2.30			14500.0	240.0	Production
	NCEP020N85	TO-220	300	225	340	±20	3.00	1.80	2.00			13200.0	205.0	Production
	NCEP065N85D	TO-263	90	68	120	±20	3.30	5.70	6.50			3100.0	51.0	Production
	NCEP058N85D	TO-263	95	72	125	±20	3.00	5.20	5.80			3550.0	67.0	Production
	NCEP055N85D	TO-263	105	80	130	±20	3.00	4.60	5.50			3700.0	57.0	Production
	NCEP050N85D	TO-263	115	88	140	±20	3.00	4.50	5.00			3900.0	70.0	Production
	NCEP048N85D	TO-263	120	92	150	±20	3.00	4.25	4.80			3780.0	71.0	Production
	NCEP040N85D	TO-263	140	105	200	±20	3.00	3.30	4.00			4950.0	88.0	Production
	NCEP040N85MD	TO-263	140	105	200	±20	3.00	3.20	3.90			4050.0	75.0	New
	NCEP035N85D	TO-263	150	112	210	±20	3.00	3.10	3.50			5860.0	96.0	Production
	NCEP033N85D	TO-263	160	120	220	±20	3.00	2.95	3.30			7200.0	115.0	Production
	NCEP028N85D	TO-263	200	150	245	±20	3.00	2.40	2.80			7680.0	124.0	Production
	NCEP026N85D	TO-263	240	170	270	±20	3.00	2.00	2.60			13400.0	172.0	Production
	NCEP023N85D	TO-263	260	195	300	±20	3.00	1.80	2.30			14500.0	240.0	Production
	NCEP020N85D	TO-263	300	225	340	±20	3.00	1.60	2.00			13200.0	205.0	Production
	NCEP030N85LL	TOLL	210	160	300	±20	3.00	2.65	3.00			7200.0	115.0	Production
	NCEP025N85LL	TOLL	260	195	340	±20	3.00	2.00	2.50			9600.0	142.0	New
	NCEP020N85LL	TOLL	295	225	360	±20	3.00	1.60	2.00			13400.0	172.0	Production
	NCEP018N85LL	TOLL	320	245	380	±20	3.00	1.30	1.80			14500.0	240.0	Production
	NCEP016N85LL	TOLL	360	275	460	±20	3.00	1.20	1.60			15800.0	245.0	Production
NCEP012N85LL	TOLL	400	300	500	±20	3.00	1.00	1.20			19200.0	284.0	New	
NCEP023N85T	TO-247	290	220	300	±20	3.00	1.80	2.30			11500.0	200.0	Production	
NCEP020N85T	TO-247	320	245	365	±20	3.00	1.60	2.00			13200.0	205.0	Production	

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

 V<sub>DS</sub>: N85V-N200V 产品列表(SGT- MOS II)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃		-Typ	-Typ	-Max	-Typ	-Max	-Typ	-Typ	
			(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)				
85V	NCEP10N85AG	DFN5*6	58	42	71	±20	1.70	9.50	10.00	12.50	14.00	1970.0	40.0	Production
	NCEP090N85GU	DFN5*6	62	45	75	±20	3.00	8.30	9.00			1580.0	31.0	Production
	NCEP090N85AGU	DFN5*6	62	45	75	±20	1.70	7.70	9.00	10.40	12.00	1970.0	40.0	Production
	NCEP075N85AGU	DFN5*6	75	55	95	±20	1.70	5.60	7.50	7.60	9.00	2650.0	52.0	Production
	NCEP063N85G	DFN5*6	80	60	100	±20	3.00	5.60	6.30			3100.0	51.0	Production
	NCEP058N85GU	DFN5*6	90	68	105	±20	3.00	4.70	5.80			3100.0	51.0	Production
	NCEP057N85G	DFN5*6	90	68	105	±20	3.00	5.20	5.70			3550.0	67.0	Production
	NCEP053N85GU	DFN5*6	95	70	110	±20	3.00	4.30	5.30			3550.0	67.0	Production
	NCEP050N85G	DFN5*6	105	77	115	±20	3.00	4.60	5.00			3528.0	52.0	Production
	NCEP045N85GU	DFN5*6	110	81	120	±20	3.00	4.10	4.50			3528.0	52.0	Production
	NCEP040N85G	DFN5*6	120	90	150	±20	3.30	3.50	4.00			4950.0	88.0	Production
	NCEP035N85GU	DFN5*6	130	100	160	±20	3.00	3.00	3.50			4950.0	88.0	Production
	NCEP030N85GU	DFN5*6	140	105	170	±20	3.00	2.65	3.00			5860.0	96.0	Production
	NCEP10N85AQ	DFN3*3	51	37	56	±20	1.70	9.50	10.00	12.50	14.00	1970.0	40.0	Production
	NCEP090N85AQU	DFN3*3	56	40	60	±20	1.70	7.70	9.00	10.40	12.00	1970.0	40.0	Production
	NCEP090N85QU	DFN3*3	56	40	60	±20	3.00	8.20	9.00			1580.0	31.0	Production
	NCEP16N85AK	TO-252	55	44	138	±20	1.70	11.50	16.00	15.00	24.00	1600.0	31.0	New
	NCEP080N85K	TO-252	75	55	90	±20	3.00	8.20	8.60			2059.0	41.4	Production
	NCEP080N85AK	TO-252	75	55	90	±20	1.70	7.50	8.00	10.00	11.50	2650.0	52.0	Production
	NCEP095N85AS	SOP-8	14	10	3.4	±20	1.70	8.70	9.50	11.00	12.50	2650.0	52.0	Production
100V	NCEP10N85AG	DFN5*6	58	42	71	±20	1.70	9.50	10.00	12.50	14.00	1970.0	40.0	Production
	NCEP18N10A	TO-220	45	32	75	±20	1.70	15.00	18.00	19.50	23.00	1719.5	37.6	New
	NCEP095N10	TO-220	65	45.5	100	±20	3.00	8.50	9.50			2160.0	42.0	Production
	NCEP095N10A	TO-220	65	45.5	100	±20	1.70	9.00	9.50	11.00	12.50	2609.0	45.0	Production
	NCEP080N10	TO-220	78	55	120	±20	3.00	7.40	8.00			3070.0	53.0	Production
	NCEP080N10A	TO-220	78	55	120	±20	1.70	6.80	8.00	8.20	9.40	3650.0	70.0	Production
	NCEP072N10	TO-220	88	63	125	±20	3.00	6.80	7.20			3600.0	60.0	Production
	NCEP072N10A	TO-220	88	63	125	±20	1.70	6.20	7.20	8.40	9.60	4120.0	81.0	Production
	NCEP065N10	TO-220	93	67	130	±20	3.00	6.00	6.50			3100.0	50.0	Production
	NCEP060N10	TO-220	100	72	140	±20	3.00	5.70	6.00			3850.0	74.0	Production
	NCEP055N10	TO-220	110	84	150	±20	3.00	5.40	5.70			3850.0	72.0	Production
NCEP045N10	TO-220	125	95	200	±20	3.00	4.20	4.50			5500.0	92.0	Production	

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

V<sub>DS</sub>: N85V-N200V 产品列表(SGT- MOS II) (产品名后带“M”: 电控应用优先推荐)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
100V	NCEP040N10	TO-220	130	100	210	±20	3.30	3.70	4.00			6300.0	110.0	Production
	NCEP039N10	TO-220	135	108	220	±20	3.30	3.65	3.90			9500.0	125.0	Production
	NCEP039N10M	TO-220	135	108	220	±20	3.30	3.65	3.90			9500.0	125.0	Production
	NCEP035N10	TO-220	150	113	240	±20	3.00	3.00	3.50			10900.0	162.0	Production
	NCEP035N10M	TO-220	150	113	240	±20	3.00	3.00	3.50			10900.0	162.0	Production
	NCEP033N10	TO-220	160	120	245	±20	3.00	2.90	3.30			8000.0	130.0	Production
	NCEP029N10	TO-220	185	130	275	±20	3.00	2.60	2.90			13700.0	185.0	Production
	NCEP026N10	TO-220	200	142	300	±20	3.00	2.40	2.60			17500.0	240.0	Production
	NCEP026N10M	TO-220	200	142	300	±20	3.00	2.40	2.60			14000.0	240.0	Production
	NCEP023N10	TO-220	240	170	340	±20	3.00	2.10	2.30			17000.0	252.0	Production
	NCEP25N10AD	TO-263	35	25	70	±20	1.70	21.00	25.00	26.00	30.00	1317.0	27.6	New
	NCEP080N10D	TO-263	78	55	120	±20	3.00	7.20	8.00			3070.0	53.0	Production
	NCEP072N10D	TO-263	88	63	125	±20	3.00	6.60	7.20			3600.0	60.0	Production
	NCEP065N10D	TO-263	93	67	130	±20	3.00	5.80	6.50			3100.0	50.0	Production
	NCEP060N10D	TO-263	100	72	140	±20	3.00	5.50	6.00			3850.0	74.0	Production
	NCEP055N10D	TO-263	110	84	150	±20	3.00	5.20	5.70			3850.0	72.0	Production
	NCEP045N10D	TO-263	125	95	200	±20	3.00	4.00	4.50			5500.0	92.0	Production
	NCEP040N10D	TO-263	130	100	210	±20	3.30	3.55	4.00			6300.0	110.0	Production
	NCEP039N10D	TO-263	135	108	220	±20	3.30	3.50	3.90			9500.0	125.0	Production
	NCEP039N10MD	TO-263	135	108	220	±20	3.30	3.50	3.90			9500.0	125.0	New
	NCEP035N10D	TO-263	150	113	240	±20	3.00	2.80	3.50			10900.0	162.0	Production
	NCEP035N10MD	TO-263	150	113	240	±20	3.00	2.80	3.50			10900.0	162.0	New
	NCEP033N10D	TO-263	160	120	245	±20	3.00	2.70	3.30			8000.0	130.0	Production
	NCEP029N10D	TO-263	185	130	275	±20	3.00	2.40	2.90			13700.0	185.0	Production
	NCEP026N10D	TO-263	200	142	300	±20	3.00	2.20	2.60			17500.0	240.0	Production
	NCEP023N10D	TO-263	240	170	340	±20	3.00	1.90	2.30			17000.0	252.0	Production
	NCEP055N10U	TO-262	110	84	150	±20	3.00	4.95	5.50			3850.0	72.0	Production
	NCEP080N10F	TO-220F	45	32	39	±20	3.00	7.20	8.00			3070.0	53.0	Production
	NCEP060N10F	TO-220F	52	37	40	±20	3.00	6.70	7.30			3850.0	74.0	Production
	NCEP045N10F	TO-220F	60	42.9	43	±20	3.00	4.70	5.20			5500.0	92.0	Production
	NCEP039N10F	TO-220F	62	45	46	±20	3.30	4.40	4.80			6400.0	102.0	Production
	NCEP039N10MF	TO-220F	62	45	46	±20	3.30	3.65	3.90			9500.0	125.0	New
NCEP026N10F	TO-220F	80	58	50	±20	3.00	2.90	3.30			14000.0	240.0	Production	
NCEP032N10MLL	TOLL	260	185	340	±20	3.00	2.60	3.20			10900.0	162.0	New	

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

 V<sub>DS</sub>: N85V-N200V 产品列表(SGT- MOS II)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
100V	NCEP026N10LL	TOLL	280	200	360	±20	3.00	2.00	2.60			13700.0	185.0	Production
	NCEP023N10LL	TOLL	300	220	380	±20	3.00	1.70	2.30			17500.0	240.0	Production
	NCEP020N10LL	TOLL	330	240	400	±20	3.00	1.50	2.00			17000.0	252.0	Production
	NCEP016N10LL	TOLL	385	280	500	±20	3.00	1.20	1.60			23100.0	285.0	New
	NCEP039N10T	TO-247	240	160	475	±20	3.30	3.30	3.90			9500.0	125.0	New
	NCEP026N10T	TO-247	230	165	300	±20	3.00	2.15	2.60			17500.0	240.0	Production
	NCEP023N10T	TO-247	280	200	365	±20	3.00	1.85	2.30			17000.0	252.0	Production
	NCEP016N10T	TO-247	420	295	565	±20	3.00	1.35	1.60			37300.0	480.0	New
	NCEP25N10AG	DFN5*6	30	22	45	±20	1.70	21.00	25.00	26.00	30.00	1317.6	27.6	Production
	NCEP18N10AG	DFN5*6	40	29	60	±20	1.70	15.50	18.00	19.50	23.00	1719.5	37.6	Production
	NCEP11N10AGU	DFN5*6	55	40	75	±20	1.70	10.50	11.80	13.50	16.00	2050.0	42.0	Production
	NCEP095N10AG	DFN5*6	60	43	80	±20	1.70	8.90	9.50	11.40	12.00	2950.0	54.0	Production
	NCEP090N10GU	DFN5*6	65	47	85	±20	3.00	7.00	9.00			2160.0	42.0	Production
	NCEP090N10AGU	DFN5*6	65	47	85	±20	1.70	8.00	9.00	10.00	11.50	2950.0	54.0	Production
	NCEP078N10G	DFN5*6	75	54	100	±20	3.00	7.40	7.80			3070.0	53.0	Production
	NCEP078N10AG	DFN5*6	75	54	100	±20	1.70	7.00	7.80	9.00	10.50	3450.0	64.0	Production
	NCEP070N10GU	DFN5*6	80	58	105	±20	3.00	6.50	7.00			3070.0	53.0	Production
	NCEP070N10AGU	DFN5*6	80	58	105	±20	1.70	6.00	7.00	7.80	9.40	3450.0	64.0	Production
	NCEP068N10G	DFN5*6	85	61	107	±20	3.30	6.10	6.80			3600.0	60.0	Production
	NCEP068N10AG	DFN5*6	85	61	107	±20	1.70	6.10	6.80	8.00	9.80	4680.0	76.0	Production
	NCEP065N10GU	DFN5*6	90	65	110	±20	3.00	5.90	6.50			3600.0	60.0	Production
	NCEP065N10AGU	DFN5*6	90	65	110	±20	1.70	5.60	6.50	7.00	9.20	4680.0	76.0	Production
	NCEP065N10AG	DFN5*6	90	65	110	±20	1.70	5.60	6.50	7.00	8.50	5580.0	83.0	Production
	NCEP063N10GU	DFN5*6	95	70	115	±20	3.20	5.30	6.30			3100.0	50.0	Production
	NCEP063N10AGU	DFN5*6	95	70	115	±20	1.70	5.40	6.30	6.80	8.30	5580.0	83.0	Production
	NCEP060N10G	DFN5*6	100	72	115	±20	3.00	5.40	6.00			3850.0	74.0	Production
	NCEP055N10G	DFN5*6	105	78	120	±20	3.00	5.30	5.60			3850.0	72.0	Production
	NCEP050N10AGU	DFN5*6	118	90	125	±20	1.70	4.40	5.00	5.30	7.00	4750.0	79.0	Production
	NCEP045N10G	DFN5*6	125	95	150	±20	3.00	3.80	4.50			5500.0	93.0	Production
	NCEP045N10AG	DFN5*6	125	95	150	±20	1.70	4.00	4.50	5.00	6.00	6215.0	105.0	Production
NCEP040N10GU	DFN5*6	130	100	160	±20	3.00	3.60	4.00			5500.0	93.0	Production	
NCEP040N10AGU	DFN5*6	130	100	160	±20	1.70	3.60	4.00	4.50	6.00	6215.0	105.0	Production	
NCEP038N10GU	DFN5*6	135	108	170	±20	3.30	3.45	3.80			6300.0	110.0	Production	

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

### V<sub>DS</sub>: N85V-N200V 产品列表(SGT- MOS II)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>o</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C	T <sub>J</sub> =25°C		(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
100V	NCEP25N10AQ	DFN3*3	27	19	38	±20	1.70	19.00	25.00	25.00	30.00	1317.6	27.6	Production
	NCEP18N10AQ	DFN3*3	35	25	48	±20	1.70	16.00	18.00	20.00	22.00	1719.5	37.6	Production
	NCEP12N10AQ	DFN3*3	46	32	56	±20	1.70	12.10	12.90	15.80	17.80	2050.0	42.0	Production
	NCEP11N10AQU	DFN3*3	50	35	60	±20	1.70	10.50	11.80	13.50	16.00	2050.0	42.0	Production
	NCEP25N10AK	TO-252	35	25	65	±20	1.70	21.00	25.00	26.00	30.00	1317.6	27.6	Production
	NCEP18N10AK	TO-252	42	30	72	±20	1.70	15.50	18.00	20.00	24.00	1719.5	37.6	Production
	NCEP11N10AK	TO-252	52	40	80	±20	1.70	11.50	13.00	14.00	16.00	2050.0	42.0	Production
	NCEP078N10AK	TO-252	75	55	100	±20	1.70	7.20	7.80	9.40	10.50	3650.0	70.0	Production
	NCEP068N10AK	TO-252	82	60	108	±20	1.70	6.60	6.80	8.20	9.80	4680.0	76.0	Production
	NCEP068N10K	TO-252	82	60	108	±20	3.30	6.70	7.00			3600.0	60.0	Production
	NCEP065N10AK	TO-252	85	65	115	±20	1.70	6.00	6.50	7.70	9.00	5580.0	83.0	Production
	NCEP13N10AS	SOP-8	10	7	3.3	±20	1.70	13.00	14.00	17.00	18.50	2050.0	42.0	Production
	NCEP11N10AS	SOP-8	12	8.5	3.4	±20	1.70	9.10	11.00	12.00	16.00	2950.0	54.0	Production
	NCEP092N10AS	SOP-8	14	10	3.5	±20	1.70	8.40	9.20	10.00	12.00	3650.0	70.0	Production
	NCEP085N10AS	SOP-8	17	12	3.5	±20	1.70	7.80	8.50	9.40	11.50	4680.0	76.0	Production
	NCEP082N10AS	SOP-8	20	14.5	3.5	±20	1.70	7.40	8.20	9.00	11.00	5580.0	83.0	Production
NCEP25N10AR	SOT-223	8	5.6	2	±20	1.70	22.00	25.00	27.00	30.00	1317.6	27.6	Production	
NCEP18N10AR	SOT-223	9.5	6.6	2.5	±20	1.70	19.20	20.00	23.00	25.00	1719.5	37.6	Production	
120V	NCEP12N12	TO-220	63	45	100	±20	3.00	11.50	12.50			2230.0	45.0	Production
	NCEP10N12	TO-220	70	50	120	±20	3.00	8.40	10.00			3080.0	55.0	Production
	NCEP080N12	TO-220	90	64	140	±20	3.00	7.70	8.50			3715.0	58.0	Production
	NCEP075N12	TO-220	95	68	145	±20	3.00	7.00	7.50			3150.0	52.0	Production
	NCEP070N12	TO-220	100	72	150	±20	3.00	6.50	7.00			4100.0	78.0	Production
	NCEP055N12	TO-220	120	85	200	±20	3.00	5.20	5.50			5250.0	99.0	Production
	NCEP050N12	TO-220	130	93	220	±20	3.00	4.50	5.00			6880.0	112.0	Production
	NCEP040N12	TO-220	150	108	245	±20	3.00	3.50	4.00			8760.0	152.0	Production
	NCEP035N12	TO-220	190	135	300	±20	3.00	3.00	3.50			12700.0	213.0	Production
	NCEP030N12	TO-220	215	150	340	±20	3.00	2.40	3.00			15500.0	225.0	Production
	NCEP10N12D	TO-263	70	50	120	±20	3.00	8.20	10.00			3080.0	55.0	Production
	NCEP080N12D	TO-263	90	64	140	±20	3.00	7.50	8.50			3715.0	58.0	Production
	NCEP075N12D	TO-263	95	68	145	±20	3.00	6.80	7.50			3150.0	52.0	Production
	NCEP070N12D	TO-263	100	72	150	±20	3.00	6.30	7.00			4100.0	78.0	Production
NCEP055N12D	TO-263	120	85	200	±20	3.00	5.00	5.50			5250.0	99.0	Production	

## 第二代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.2)

 V<sub>DS</sub>: N85V-N200V 产品列表(SGT- MOS II)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃		-Typ	-Typ	-Max	-Typ	-Max	-Typ	-Typ	
120V	NCEP050N12D	TO-263	130	93	220	±20	3.00	4.30	5.00			6880.0	112.0	Production
	NCEP040N12D	TO-263	150	108	245	±20	3.00	3.30	4.00			8760.0	152.0	Production
	NCEP035N12D	TO-263	190	135	300	±20	3.00	2.80	3.50			12700.0	213.0	Production
	NCEP030N12D	TO-263	215	150	340	±20	3.00	2.20	3.00			15500.0	225.0	Production
	NCEP035N12VD	TO-263-6L	190	135	300	±20	3.00	2.50	3.50			12700.0	213.0	Production
	NCEP028N12LL	TOLL	230	165	380	±20	3.00	2.00	2.80			12700.0	213.0	Production
	NCEP025N12LL	TOLL	255	185	400	±20	3.00	1.85	2.50			15500.0	225.0	Production
	NCEP11N12AGU	DFN5*6	57	40	85	±20	1.70	9.50	11.00	12.50	15.00	2800.0	56.0	Production
	NCEP10N12G	DFN5*6	65	46	100	±20	3.00	8.80	10.00			3080.0	55.0	Production
	NCEP10N12AG	DFN5*6	65	46	100	±20	1.70	8.70	10.00	10.50	12.00	3850.0	67.0	Production
	NCEP090N12AGU	DFN5*6	70	50	105	±20	1.70	7.70	9.00	9.50	11.00	3850.0	67.0	Production
	NCEP080N12G	DFN5*6	80	58	110	±20	3.00	8.40	9.00			3715.0	58.0	Production
	NCEP070N12AG	DFN5*6	91	63.5	125	±20	1.70	6.50	7.00	7.70	8.50	4850.0	80.0	Production
	NCEP065N12AGU	DFN5*6	100	70	130	±20	1.70	5.60	6.50	6.90	7.80	4850.0	80.0	Production
	NCEP065N12GU	DFN5*6	100	70	130	±20	3.00	5.60	6.50			4100.0	78.0	Production
	NCEP055N12G	DFN5*6	110	78	145	±20	3.00	5.20	5.50			5250.0	99.0	Production
	NCEP055N12AG	DFN5*6	110	78	145	±20	1.70	5.20	5.50	6.40	7.50	5786.0	96.0	Production
	NCEP050N12GU	DFN5*6	120	85	160	±20	3.00	4.60	5.00			5250.0	99.0	Production
	NCEP050N12AGU	DFN5*6	120	85	160	±20	1.70	4.70	5.00	6.00	7.00	5786.0	96.0	Production
	NCEP12N12K	TO-252	60	42	90	±20	3.00	12.00	13.00			2230.0	45.0	Production
NCEP12N12AK	TO-252	60	42	90	±20	1.70	11.00	12.00	14.00	15.50	2800.0	56.0	Production	
NCEP10N12K	TO-252	65	46	120	±20	3.00	8.70	10.00			3050.0	53.0	Production	
NCEP10N12AK	TO-252	65	46	120	±20	1.70	9.00	10.00	10.80	12.00	4000.0	70.8	Production	
NCEP080N12I	TO-251	70	50	130	±20	3.00	8.80	9.40			3715.0	58.0	Production	
NCEP12N12AS	SOP-8	11	7.7	3.4	±20	1.70	13.30	14.00	16.20	18.00	2800.0	56.0	Production	
200V	NCEP090N20	TO-220	125	88	340	±20	3.00	7.70	9.00			6000.0	95.0	New
	NCEP090N20D	TO-263	125	88	340	±20	3.00	7.50	9.00			6000.0	95.0	New
	NCEP10N20T	TO-247	115	80.5	310	±20	3.00	9.00	10.00			5750.0	84.0	New
	NCEP090N20T	TO-247	125	88	340	±20	3.00	7.70	9.00			6000.0	95.0	New

第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

V<sub>DS</sub>: P30V-P100V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃		(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
-30V	NCEP30P90G	DFN5*6	-90	-63	75	±20	-1.50	5.10	5.60	7.40	8.00	3700.0	57.0	Production
	NCEP30PT16G	DFN5*6	-160	-112	150	±20	-1.50	2.30	2.70	3.30	4.00	7962.0	106.5	Production
	NCEP30P90K	TO-252	-90	-63	90	±20	-1.50	5.70	6.30	7.60	8.50	3700.0	57.0	Production
-40V	NCEP40P80D	TO-263	-80	-56	150	±20	-1.40	5.60	6.20	7.60	9.10	3700.0	57.0	Production
	NCEP40PT13D	TO-263	-130	-91	220	±20	-1.60	3.55	4.45	5.00	7.50	7060.0	83.0	New
	NCEP40PT15D	TO-263	-150	-120	250	±20	-1.60	2.80	3.40	3.80	4.60	8940.0	104.4	Production
	NCEP40P60G	DFN5*6	-60	-42	80	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New
	NCEP40P65GU	DFN5*6	-65	-46	85	±20	-1.70	7.80	10.00	11.50	16.00	2450.0	39.0	New
	NCEP40P80G	DFN5*6	-80	-56	85	±20	-1.50	6.30	7.50	9.00	12.00	3700.0	57.0	Production
	NCEP40PT15G	DFN5*6	-150	-120	150	±20	-1.50	2.80	3.50	3.90	6.00	8940.0	104.4	Production
	NCEP40P60Q	DFN3*3	-60	-42	75	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New
	NCEP40P65QU	DFN3*3	-65	-46	80	±20	-1.70	7.80	10.00	11.50	16.00	2450.0	39.0	New
	NCEP40P60K	TO-252	-60	-42	110	±20	-1.70	8.80	11.00	12.50	17.00	2450.0	39.0	New
	NCEP40P80K	TO-252	-80	-56	150	±20	-1.40	7.20	8.80	11.00	14.00	3700.0	57.0	Production
	NCEP40PT12K	TO-252	-120	-84	220	±20	-1.60	4.55	5.45	7.00	9.50	7060.0	83.0	New
	NCEP40P07S	SOP-8	-7	-5	2.5	±20	-1.60	20.50	25.00	27.50	35.00	1135.0	45.7	Production
-50V	NCEP50P80	TO-220	-80	-56	180	±20	-2.50	7.60	9.00			3550.0	38.5	Production
	NCEP50P80A	TO-220	-80	-56	180	±20	-1.40	7.60	9.00	9.40	11.80	3445.0	38.5	Production
	NCEP50P80AK	TO-252	-80	-56	140	±20	-1.40	7.60	9.00	9.40	11.80	3445.0	38.5	Production
-100V	NCEP01P35A	TO-220	-35	-24.5	150	±20	-1.70	35.00	48.00	40.00	56.00	3445.0	46.0	Production
	NCEP01P60A	TO-220	-60	-42	230	±20	-1.70	25.00	32.00	28.00	35.00	6900.0	86.5	New
	NCEP01P35AG	DFN5*6	-35	-24.5	95	±20	-1.70	37.00	45.00	45.00	55.00	3445.0	46.0	New
	NCEP01P40AGU	DFN5*6	-40	-28	100	±20	-1.70	35.00	44.00	43.00	54.00	3445.0	46.0	New
	NCEP01P60AG	DFN5*6	-55	-39	140	±20	-1.70	22.00	29.00	25.00	32.00	6900.0	86.5	New
	NCEP01P60G	DFN5*6	-55	-39	140	±20	-3.00	22.00	29.00			4900.0	61.0	New
	NCEP01P35AK	TO-252	-35	-24.5	105	±20	-1.70	35.00	48.00	40.00	56.00	3445.0	46.0	Production

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### V<sub>DS</sub>: N30V-N60V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>es</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
30V	NCEP3045GU	DFN5*6	45	31.8	28	±20	1.50	5.80	6.40	8.00	10.00	822.0	15.0	Production
	NCEP3045BGU	DFN5*6	45	31.8	28	±10	0.70	4.40	5.00	5.30	6.30	1125.0	13.8	Production
	NCEP3085EG	DFN5*6	85	59.5	65	±20	1.50	3.20	3.50	4.50	5.10	2200.0	34.6	Production
	NCEP3090GU	DFN5*6	90	63.6	85	±20	1.50	2.00	2.30	3.10	3.60	2100.0	34.8	Production
	NCEP30T12G	DFN5*6	120	84.8	100	±20	1.70	1.95	2.35	2.85	3.35	3550.0	63.0	Production
	NCEP30T12GS	DFN5*6	120	84.8	100	±20	1.70	2.45	2.70	3.20	3.60	2850.0	45.8	Production
	NCEP30T13GU	DFN5*6	130	100	110	±20	1.70	1.70	2.20	2.70	3.20	2394.0	39.6	Production
	NCEP30T15GU	DFN5*6	150	120	130	±20	1.70	1.50	1.90	2.00	2.50	3372.0	55.0	Production
	NCEP30T17GU	DFN5*6	170	125	135	±20	1.50	0.97	1.20	1.25	1.50	5300.0	90.0	Production
	NCEP30T17G	DFN5*6	170	125	135	±20	1.50	1.35	1.65	1.80	2.20	6150.0	98.0	Production
	NCEP30T19G	DFN5*6	185	140	150	±20	1.50	1.10	1.40	1.45	1.80	7350.0	125.0	Production
	NCEP30T21GU	DFN5*6	210	160	180	±20	1.50	0.72	0.85	0.85	1.10	8085.0	137.0	Production
	NCEP3040Q	DFN3*3	40	28.3	25	±20	1.50	6.80	7.10	9.50	11.00	822.0	15.0	Production
	NCEP3060EQ	DFN3*3	60	42	48	±20	1.50	4.00	4.30	5.40	6.00	2200.0	34.6	Production
	NCEP3065QU	DFN3*3	65	45.5	55	±20	1.50	1.90	2.30	3.00	3.60	2100.0	34.8	Production
	NCEP3065FQU	DFN3*3	65	45.5	55	±20	1.50	1.90	2.30	3.00	3.60	1950.0	38.0	New
NCEP3065BQU	DFN3*3	65	45.5	55	±10	0.60	1.75	1.95	2.00	2.30	3115.0	30.4	Production	
40V	NCEP40T11	TO-220	110	85	150	±20	1.70	2.90	3.60	4.40	5.20	3510.0	60.0	Production
	NCEP40T15A	TO-220	150	106	210	±20	2.70	1.90	2.30			4900.0	81.0	Production
	NCEP40T17A	TO-220	170	120	250	±20	2.50	1.40	1.70			5670.0	88.6	Production
	NCEP40T20A	TO-220	200	150	270	±20	3.00	1.30	1.60			5834.6	91.0	Production
	NCEP40T17AD	TO-263	170	120	250	±20	2.50	1.40	1.70			5670.0	88.6	Production
	NCEP40T20AD	TO-263	200	150	270	±20	3.00	1.30	1.60			5834.6	91.0	Production
	NCEP40T35VD	T0-263-6L	350	245	380	±20	1.70	0.68	0.88	0.90	1.10	16850.0	227.0	New
	NCEP40T35AVD	T0-263-6L	350	245	380	±20	3.00	0.68	0.88			12850.0	156.5	New
	NCEP4045GU	DFN5*6	45	31.8	28	±20	1.60	6.00	6.60	8.50	10.00	831.0	17.6	Production
	NCEP4085EG	DFN5*6	85	59.5	65	±20	1.50	3.70	4.00	5.00	5.50	2100.0	34.3	Production
	NCEP4090GU	DFN5*6	90	63.6	85	±20	1.50	2.20	2.75	3.30	4.00	2300.0	40.0	Production
	NCEP4090AGU	DFN5*6	90	63.6	85	±20	3.00	2.90	3.40			1695.0	28.0	Production
	NCEP40T11AG	DFN5*6	110	77.8	100	±20	3.00	2.50	3.20			2750.0	38.5	Production
	NCEP40T11G	DFN5*6	110	77.8	100	±20	1.70	2.20	2.80	3.30	4.00	3510.0	60.0	Production
NCEP40T12GU	DFN5*6	120	84.8	110	±20	1.70	2.05	2.35	3.10	3.60	2250.0	44.0	Production	
NCEP40T12AGU	DFN5*6	120	84.8	110	±20	2.80	2.05	2.35			1820.0	24.0	Production	
NCEP40T13AGU	DFN5*6	130	100	130	±20	2.80	1.80	2.30			2100.0	28.0	Production	

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### V<sub>DS</sub>: N30V-N60V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>o</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃		(V)	-Typ	-Max	-Typ	-Max	(pF)	(nC)	
40V	NCEP40T13GU	DFN5*6	130	100	130	±20	1.70	1.80	2.30	2.80	3.60	3334.0	58.5	Production
	NCEP40T14G	DFN5*6	140	103	133	±20	1.50	1.60	1.90	2.30	2.65	5000.0	90.0	Production
	NCEP40T15GU	DFN5*6	150	106	135	±20	1.50	1.09	1.35	1.50	1.85	5200.0	91.0	Production
	NCEP40T15AGU	DFN5*6	150	106	135	±20	3.00	1.15	1.45			4135.0	62.0	Production
	NCEP40T15G	DFN5*6	150	106	135	±20	1.50	1.60	1.80	1.90	2.30	6000.0	95.0	Production
	NCEP40T15AGW	DFN5*6	155	110	145	±20	3.00	1.15	1.45			4135.0	62.0	New
	NCEP40T17G	DFN5*6	170	120	150	±20	1.50	1.25	1.50	1.55	1.95	7400.0	125.0	Production
	NCEP40T17AG	DFN5*6	170	120	150	±20	2.50	1.40	1.70			5670.0	88.6	Production
	NCEP40T19GU	DFN5*6	185	140	160	±20	1.50	1.00	1.20	1.40	1.70	7400.0	125.0	Production
	NCEP40T20GU	DFN5*6	200	150	180	±20	1.50	0.90	1.10	1.15	1.35	8085.0	137.0	Production
	NCEP40T20AGU	DFN5*6	200	150	180	±20	1.50	0.95	1.30			5834.6	91.0	New
	NCEP4040Q	DFN3*3	40	28.3	25	±20	1.60	7.70	8.80	11.00	13.00	831.0	17.6	Production
	NCEP4060EQ	DFN3*3	60	42	48	±20	1.50	4.20	4.50	5.70	6.20	2100.0	34.3	Production
	NCEP4065QU	DFN3*3	65	45.5	55	±20	1.50	2.20	2.50	3.30	3.80	2300.0	40.0	Production
	NCEP40T20ALL	TOLL	250	175	300	±20	3.00	1.10	1.35			5834.6	91.0	Production
	NCEP40T35LL	TOLL	350	247	500	±20	1.70	0.58	0.88	0.78	1.10	16850.0	227.0	New
	NCEP40T35ALL	TOLL	350	247	500	±20	3.00	0.63	0.80			11669.0	182.0	Production
	NCEP40T17AT	TO-247	170	120	250	±20	2.50	1.40	1.70			5670.0	88.6	Production
	NCEP40T11K	TO-252	110	85	150	±20	1.70	2.40	3.50	3.30	4.80	3510.0	60.0	Production
	NCEP40T11AK	TO-252	110	85	150	±20	3.00	3.20	4.20			2750.0	38.5	New
NCEP40T15K	TO-252	150	116	170	±20	1.50	1.80	2.20	2.30	2.70	5200.0	91.0	Production	
60V	NCEP6090	TO-220	90	63.6	100	±20	3.00	6.40	6.90			1700.0	26.9	Production
	NCEP60T12A	TO-220	120	100	180	±20	1.70	3.50	4.00	4.00	5.00	4000.0	67.0	Production
	NCEP60T12AU	TO-262	120	100	180	±20	1.70	3.30	4.00	4.00	5.00	4000.0	67.0	New
	NCEP60T18	TO-220	180	126	220	±20	2.80	2.80	3.20			4500.0	70.0	Production
	NCEP60T18A	TO-220	180	126	220	±20	1.60	2.70	3.00	3.10	3.50	5500.0	88.0	Production
	NCEP60T20	TO-220	200	150	255	±20	2.80	1.80	2.20			9200.0	130.0	Production
	NCEP60T20A	TO-220	200	150	255	±20	1.50	1.80	2.30	2.10	2.70	10400.0	173.0	Production
	NCEP6090D	TO-263	90	63.6	100	±20	3.00	6.40	6.90			1700.0	26.9	Production
	NCEP60T12AD	TO-263	120	100	180	±20	1.70	3.50	4.00	4.00	5.00	4000.0	67.0	New

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### V<sub>DS</sub>: N30V-N60V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)		P <sub>D</sub> (W)	V <sub>ES</sub>	V <sub>TH</sub>	R <sub>on10</sub>		R <sub>on4.5</sub>		C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C				T <sub>J</sub> =25°C	(V)	-Typ	-Max			
60V	NCEP60T18D	TO-263	180	126	220	±20	2.80	2.80	3.20			4500.0	70.0	Production
	NCEP60T20D	TO-263	200	150	255	±20	2.80	1.80	2.20			9200.0	130.0	Production
	NCEP60T20VD	TO-263-6L	200	150	255	±20	3.00	1.40	1.80			9200.0	130.0	<b>New</b>
	NCEP6035AG	DFN5*6	35	27	43	±20	1.70	9.80	11.00	12.50	14.50	1040.0	22.6	Production
	NCEP6040GU	DFN5*6	40	31	45	±20	3.00	11.50	13.00			790.0	17.0	Production
	NCEP6040AGU	DFN5*6	40	31	45	±20	1.70	11.50	13.00	14.50	16.80	1010.0	21.8	Production
	NCEP6055GU	DFN5*6	55	42.9	65	±20	3.00	6.50	7.50			1600.0	26.0	Production
	NCEP6055AGU	DFN5*6	55	42.9	65	±20	1.80	6.50	7.50	7.70	8.80	2000.0	34.8	Production
	NCEP6060GU	DFN5*6	60	43.5	70	±20	3.00	5.60	7.00			1700.0	26.9	Production
	NCEP6060AGU	DFN5*6	60	43.5	70	±20	1.80	5.30	6.00	6.50	7.80	2100.0	36.6	Production
	NCEP6080G	DFN5*6	80	58	85	±20	3.00	3.80	4.30			3400.0	51.4	Production
	NCEP6080AG	DFN5*6	80	58	85	±20	1.70	3.50	4.00	4.00	5.00	4000.0	67.0	Production
	NCEP6090GU	DFN5*6	90	63.6	100	±20	3.00	2.90	3.50			3400.0	51.4	Production
	NCEP6090AGU	DFN5*6	90	63.6	100	±20	1.70	2.80	3.50	3.50	4.50	4000.0	67.0	Production
	NCEP60T15G	DFN5*6	150	106	200	±20	2.80	2.80	3.10			4500.0	70.0	Production
	NCEP60T15AG	DFN5*6	150	106	200	±20	1.60	2.70	3.00	3.10	3.50	5900.0	98.0	Production
	NCEP6050QU	DFN3*3	50	39	60	±20	3.00	6.50	7.50			1600.0	26.0	Production
	NCEP6050AQU	DFN3*3	50	39	60	±20	1.80	6.50	7.50	7.70	8.80	2000.0	34.8	Production
	NCEP60T20LL	TOLL	300	225	350	±20	3.00	1.20	1.50			8600.0	129.0	Production
	NCEP60T12T	TO-247	120	85	180	±20	3.00	3.50	4.00			3400.0	51.4	Production
	NCEP60T12AT	TO-247	120	100	180	±20	1.70	3.50	4.30	4.00	5.30	4000.0	67.0	<b>New</b>
	NCEP60T19AT	TO-247	190	142	230	±20	1.70	1.80	2.20	2.00	2.70	8000.0	134.0	<b>New</b>
	NCEP60T20T	TO-247	200	150	255	±20	2.80	1.80	2.20			8600.0	129.0	Production
	NCEP6090K	TO-252	90	63.6	85	±20	3.00	7.00	7.50			1700.0	26.9	Production
NCEP6090AK	TO-252	90	63.6	85	±20	1.70	7.20	8.00	8.60	9.50	2100.0	36.6	Production	
NCEP60T12K	TO-252	120	100	180	±20	3.00	3.60	4.00			3400.0	51.4	Production	
NCEP60T12AK	TO-252	120	100	180	±20	1.70	3.50	4.30	4.00	5.30	4000.0	67.0	Production	
NCEP6012AS	SOP-8	12	8.5	3.3	±20	1.70	12.70	14.50	15.50	18.00	1010.0	21.8	Production	
NCEP6015AS	SOP-8	15	10.5	3.4	±20	1.80	8.30	9.30	9.70	11.60	2000.0	34.8	Production	
NCEP6016AS	SOP-8	16	11.3	3.4	±20	1.80	8.20	9.20	9.60	11.50	2100.0	36.6	Production	
NCEP6020AS	SOP-8	20	14	3.5	±20	1.70	4.00	4.50	4.60	5.40	4000.0	67.0	Production	

第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

V<sub>DS</sub>: N85V-N150V 产品列表(SGT- MOS I )

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
85V	NCEP8588	TO-220	88	65	125	±20	3.50	5.80	6.40			3000.0	42.2	Production
	NCEP85T11	TO-220	110	81	145	±20	3.30	5.30	5.80			3870.0	54.0	Production
	NCEP85T12	TO-220	120	88	160	±20	3.30	5.00	5.50			5500.0	55.0	Production
	NCEP85T14	TO-220	140	99	200	±20	3.10	3.60	4.10			5600.0	84.0	Production
	NCEP85T15	TO-220	150	106	210	±20	3.20	3.30	3.80			6200.0	94.0	Production
	NCEP85T16	TO-220	160	112	220	±20	3.30	3.10	3.80			8500.0	105.0	Production
	NCEP85T25	TO-220	250	180	300	±20	3.50	2.20	2.60			10700.0	142.0	Production
	NCEP85T12D	TO-263	120	88	160	±20	3.30	5.00	5.50			5500.0	55.0	Production
	NCEP85T14D	TO-263	140	99	200	±20	3.10	3.30	4.00			5600.0	84.0	Production
	NCEP85T15D	TO-263	150	106	210	±20	3.20	3.10	3.80			6200.0	94.0	Production
	NCEP85T16D	TO-263	160	112	220	±20	3.30	3.10	3.80			8500.0	105.0	Production
	NCEP85T25D	TO-263	250	180	300	±20	3.50	2.20	2.60			10700.0	142.0	Production
	NCEP85T25VD	TO-263-6L	250	180	300	±20	3.50	1.70	2.00			10700.0	142.0	Production
	NCEP8542AF	TO-220F	42	29.4	25	±20	1.70	16.00	21.00	20.00	25.00	1652.0	26.8	New
	NCEP85T10G	DFN5*6	100	73	88	±20	3.30	5.00	5.50			5500.0	55.0	Production
	NCEP85T30LL	TOLL	330	231	450	±20	3.50	1.60	1.90			10700.0	142.0	Production
	NCEP85T25T	TO-247	250	180	360	±20	3.50	2.10	2.80			10700.0	142.0	Production
NCEP85T30T	TO-247	300	215	400	±20	3.50	1.75	2.20			14500.0	170.0	Production	
NCEP85T35T	TO-247	350	280	520	±20	3.80	1.40	1.85			19500.0	324.0	Production	
88V	NCEP8814S	SOP-8	14	10	3.5	±20	3.00	8.80	10.20			3696.0	37.0	Production
	NCEP8814AS	SOP-8	14	10	3.5	±20	1.70	8.80	10.20	10.30	11.20	3696.0	54.0	Production
	NCEP8816AS	SOP-8	16	11.3	3.5	±20	1.70	6.80	8.20	8.00	9.20	4747.0	69.0	Production
	NCEP8818AS	SOP-8	18	12.7	3.5	±20	1.70	6.10	7.50	7.10	8.50	5360.0	79.0	Production

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### Vds: N85V-N150V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>o</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on</sub> 10	R <sub>on</sub> 10	R <sub>on</sub> 4.5	R <sub>on</sub> 4.5	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	(pF)	
100V	NCEP0135A	TO-220	35	24.5	75	±20	1.90	18.00	23.00	22.00	27.00	1600.0	26.0	Production
	NCEP0160	TO-220	60	42.4	105	±20	3.00	9.20	10.80			2500.0	37.0	Production
	NCEP0160A	TO-220	60	42.4	105	±20	1.70	9.20	10.80	10.80	14.00	3270.0	51.2	Production
	NCEP0178	TO-220	78	60	125	±20	3.50	7.20	8.50			3500.0	48.0	Production
	NCEP0178A	TO-220	78	60	125	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production
	NCEP01T11	TO-220	108	78	160	±20	3.30	6.20	7.00			4300.0	60.0	Production
	NCEP01T12	TO-220	129	92	185	±20	3.30	4.50	5.00			5600.0	84.7	Production
	NCEP01T13	TO-220	135	108	220	±20	3.30	3.70	4.50			7500.0	100.0	Production
	NCEP01T13A	TO-220	135	102	210	±20	3.30	3.80	4.60			6400.0	92.0	Production
	NCEP01T13B	TO-220	135	108	220	±20	1.90	3.70	4.30	4.30	5.00	10900.0	150.0	Production
	NCEP01T15	TO-220	150	120	250	±20	3.50	3.20	3.80			7770.0	113.0	Production
	NCEP01T18	TO-220	180	128	300	±20	3.50	2.80	3.00			11500.0	158.0	Production
	NCEP0178D	TO-263	78	60	125	±20	3.50	7.20	8.50			3500.0	48.0	Production
	NCEP0178AD	TO-263	78	60	125	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production
	NCEP01T11D	TO-263	108	78	160	±20	3.30	6.00	7.00			4300.0	60.0	Production
	NCEP01T12D	TO-263	129	92	185	±20	3.30	4.50	5.00			5600.0	84.7	Production
	NCEP01T13D	TO-263	135	108	220	±20	3.30	3.70	4.50			7500.0	100.0	Production
	NCEP01T13AD	TO-263	135	102	210	±20	3.30	3.80	4.60			6400.0	92.0	Production
	NCEP01T13BD	TO-263	135	108	220	±20	1.90	3.70	4.30	4.30	5.00	10900.0	150.0	Production
	NCEP01T18D	TO-263	180	128	300	±20	3.50	2.80	3.00			11500.0	158.0	Production
	NCEP01T18VD	TO-263-6L	189	135	300	±20	3.50	2.30	2.60			11500.0	158.0	Production
	NCEP0135AF	TO-220F	35	24.5	25	±20	1.90	16.00	23.00	20.00	27.00	1600.0	26.0	Production
	NCEP0160F	TO-220F	60	42.4	30	±20	3.00	9.20	10.80			2500.0	37.0	Production
	NCEP0178F	TO-220F	78	60	40	±20	3.50	7.20	8.50			3500.0	48.0	Production
	NCEP0178AF	TO-220F	78	60	40	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production
	NCEP01T13LL	TOLL	160	128	260	±20	3.30	3.30	3.90			7500.0	100.0	Production
	NCEP01T25LL	TOLL	250	175	350	±20	3.30	2.20	2.60			11500.0	158.0	Production
	NCEP01T18T	TO-247	180	128	300	±20	3.50	2.70	3.00			11500.0	158.0	Production
	NCEP01T25T	TO-247	250	180	380	±20	3.60	2.20	2.50			15700.0	208.0	Production
	NCEP01T30T	TO-247	300	220	520	±20	3.50	1.80	2.10			18950.0	314.0	Production
NCEP0140AG	DFN5*6	40	28.3	50	±20	1.90	18.00	23.00	22.00	27.00	1600.0	26.0	Production	
NCEP0155AG	DFN5*6	55	38.9	78	±20	1.80	9.50	12.00	11.50	15.00	3100.0	51.0	Production	

第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

V<sub>DS</sub>: N85V-N150V 产品列表(SGT- MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =100℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
100V	NCEP0160G	DFN5*6	60	42.5	105	±20	3.00	7.70	8.50			3500.0	48.0	Production
	NCEP0160AG	DFN5*6	60	42.5	105	±20	1.70	7.20	8.50	9.50	11.00	4200.0	65.0	Production
	NCEP0190G	DFN5*6	90	63.6	135	±20	3.20	7.00	7.50			3458.0	45.0	Production
	NCEP01T10G	DFN5*6	105	74	140	±20	3.30	6.20	7.00			4300.0	60.0	Production
	NCEP0120Q	DFN3*3	20	14	33	±20	3.00	36.00	42.00			587.5	11.4	Production
	NCEP0116K	TO-252	16	11.3	55	±20	3.20	78.00	95.00			322.0	5.6	Production
	NCEP0135AK	TO-252	35	24.5	70	±20	2.00	18.00	23.00	22.00	27.00	1450.0	25.0	Production
	NCEP0178AK	TO-252	78	60	125	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production
	NCEP0140AL	TO-251	45	31.8	110	±20	1.90	18.00	23.00	22.00	27.00	1600.0	26.0	Production
	NCEP0178AL	TO-251	78	60	125	±20	1.70	7.20	8.50	9.50	12.00	4200.0	65.0	Production
	NCEP0110AS	SOP-8	10	7	3	±20	1.70	22.00	27.00	25.50	30.00	1600.0	26.0	New
	NCEP0112AS	SOP-8	12	8	3.5	±20	1.70	9.90	13.00	11.50	15.00	3270.0	51.2	Production
	NCEP0114AS	SOP-8	14	10	3.5	±20	1.70	8.80	11.00	9.80	13.00	4420.0	64.0	Production
	NCEP0116AS	SOP-8	16	11.3	3.5	±20	1.70	7.90	9.50	9.10	12.00	4960.0	63.8	Production
	NCEP0107R	SOT-223	7	5	2.5	±20	3.20	78.00	95.00			322.0	5.6	Production
NCEP0107AR	SOT-223	7	5	2.5	±20	1.90	75.00	95.00	85.00	105.00	443.0	7.2	Production	
NCEP0109AR	SOT-223	9	6.3	2.5	±20	1.90	21.00	27.00	30.00	37.00	1600.0	26.0	Production	
120V	NCEP12T11	TO-220	108	78	160	±20	3.30	6.60	7.40			4300.0	60.0	Production
	NCEP12T12	TO-220	129	92	185	±20	3.30	5.00	6.00			5600.0	84.7	Production
	NCEP12T13	TO-220	135	108	220	±20	3.30	4.00	4.50			7500.0	100.0	Production
	NCEP12T13A	TO-220	135	102	210	±20	3.30	4.10	4.60			6394.0	85.8	Production
	NCEP12T15	TO-220	150	120	250	±20	3.30	3.50	4.20			7900.0	111.0	Production
	NCEP12T18	TO-220	180	128	300	±20	3.50	3.00	3.50			11500.0	158.0	Production
	NCEP12T12D	TO-263	129	92	185	±20	3.30	5.00	5.50			5600.0	84.7	Production
	NCEP12T13AD	TO-263	135	102	210	±20	3.30	3.90	4.60			6394.0	85.8	New
	NCEP1260F	TO-220F	60	42.4	30	±20	3.00	10.00	11.00			2380.0	38.0	Production
	NCEP12T10F	TO-220F	100	70.7	40	±20	3.30	6.80	7.60			3458.0	55.0	Production
	NCEP1250AK	TO-252	50	38	105	±20	1.80	8.80	10.10	10.70	13.90	3270.0	51.2	Production
	NCEP1290AK	TO-252	90	63.6	130	±20	1.70	7.30	8.50	9.00	10.00	5829.0	75.5	Production
	NCEP1212AS	SOP-8	12	8	3.5	±20	1.70	10.80	13.90	12.60	16.00	3270.0	51.2	Production
	NCEP1214AS	SOP-8	14	10	3.5	±20	1.70	9.40	11.60	10.90	14.00	4420.0	64.0	Production
NCEP1216AS	SOP-8	16	11.3	3.5	±20	1.70	8.70	10.30	10.00	12.90	4960.0	63.8	Production	

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### V<sub>DS</sub>: N85V-N150V 产品列表(SGT- MOS I )

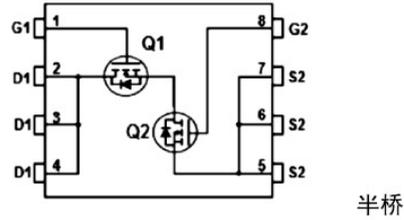
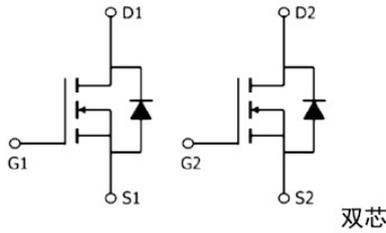
Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>D</sub> (W)	V <sub>ES</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =100°C	T <sub>J</sub> =25°C		(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
150V	NCEP1545A	TO-220	45	31.5	120	±20	1.70	22.00	27.00	28.00	35.00	1935.0	33.0	New
	NCEP1570	TO-220	70	49	200	±20	3.10	13.50	15.00			2000.0	35.0	Production
	NCEP1580	TO-220	80	56.6	210	±20	3.50	10.40	12.50			3200.0	44.1	Production
	NCEP15T14	TO-220	140	100	320	±20	3.00	5.80	6.50			5500.0	80.0	Production
	NCEP1570D	TO-263	70	49	200	±20	3.10	13.50	15.00			2000.0	35.0	Production
	NCEP1580D	TO-263	80	56.6	210	±20	3.50	10.40	12.50			3200.0	44.1	Production
	NCEP15T14D	TO-263	140	100	320	±20	3.00	5.60	6.40			5500.0	80.0	Production
	NCEP15T14LL	TOLL	170	120	380	±20	3.00	5.00	5.80			5500.0	80.0	Production
	NCEP15T14T	TO-247	140	100	320	±20	3.00	5.60	6.40			5500.0	80.0	New
	NCEP1520G	DFN5*6	20	14	68	±20	3.30	59.00	65.00			600.0	12.8	Production
	NCEP1545G	DFN5*6	45	31.8	110	±20	3.10	28.00	32.00			1300.0	21.1	Production
	NCEP1545AG	DFN5*6	45	31.8	110	±20	1.70	25.00	30.00	30.00	40.00	1935.0	33.0	Production
	NCEP1570GU	DFN5*6	70	49	160	±20	3.10	13.50	15.00			2000.0	35.0	Production
	NCEP1580GU	DFN5*6	80	52	170	±20	3.10	12.00	14.50			2200.0	33.0	Production
	NCEP15T10V	DFN8*8	100	70.7	200	±20	3.00	5.70	6.50			5500.0	80.0	Production
	NCEP1580F	TO-220F	80	56.6	50	±20	3.00	10.60	12.50			3200.0	44.0	New
	NCEP1520K	TO-252	20	14	68	±20	3.70	59.00	65.00			600.0	12.0	Production
	NCEP1520AK	TO-252	20	14	68	±20	1.80	56.00	62.00	68.00	82.00	800.0	15.0	Production
	NCEP1520BK	TO-252	20	14	68	±20	0.70	55.00	62.00	59.00	65.00	1386.0	27.4	Production
	NCEP1545K	TO-252	45	31.8	130	±20	3.10	24.00	35.00			1480.0	25.5	Production
NCEP1545AK	TO-252	45	31.8	130	±20	1.70	26.00	35.00	30.00	45.00	1935.0	33.0	Production	
NCEP1505S	SOP-8	5.1	3.6	5	±20	3.10	55.00	65.00			618.0	12.8	Production	
NCEP1508S	SOP-8	8	6.0	5	±20	3.40	30.00	35.00			1125.0	19.8	New	

## 第一代屏蔽栅沟槽型功率 MOSFET (Super Trench MOSFET Gen.1)

### V<sub>DS</sub>: N200V-N250V 产品列表(SGT-MOS I)

Voltage	Product Name	Package	I <sub>d</sub> (A)	I <sub>d</sub> (A)	P <sub>o</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>j</sub> =25°C	T <sub>j</sub> =100°C	T <sub>j</sub> =25°C		(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
200V	NCEP02T10	TO-220	100	70.7	300	±20	3.00	10.00	12.00			6000.0	87.0	Production
	NCEP02T11	TO-220	110	77.7	330	±20	3.00	9.60	11.00			6635.0	89.5	Production
	NCEP0230D	TO-263	30	21	135	±20	3.50	40.00	45.00			1635.0	25.0	Production
	NCEP02T10D	TO-263	100	70.7	300	±20	3.00	10.00	12.00			6000.0	87.0	Production
	NCEP02T11D	TO-263	110	77.7	330	±20	3.00	9.40	11.00			6635.0	89.5	Production
	NCEP02T10T	TO-247	100	70.7	300	±20	3.00	9.50	12.00			6000.0	87.0	Production
	NCEP02T11T	TO-247	110	77.7	330	±20	3.50	9.40	10.50			6635.0	89.5	Production
	NCEP0212F	TO-220F	12	8.4	20	±20	3.50	145.00	160.00			483.0	9.2	Production
	NCEP0220F	TO-220F	20	14	30	±20	3.50	68.00	78.00			951.0	18.0	Production
	NCEP0225F	TO-220F	25	17.6	45	±20	3.50	40.00	50.00			1635.0	25.0	Production
	NCEP0218G	DFN5*6	18	12.6	105	±20	3.50	70.00	80.00			951.0	18.0	Production
	NCEP0225G	DFN5*6	25	17.6	135	±20	3.50	40.00	50.00			1635.0	25.0	Production
	NCEP0210Q	DFN3*3	10	7	40	±20	3.50	145.00	160.00			483.0	9.2	Production
	NCEP0218K	TO-252	18	12	68	±20	3.50	145.00	160.00			483.0	9.2	Production
	NCEP0225K	TO-252	25	17.6	135	±20	3.50	40.00	50.00			1635.0	25.0	Production
230V	NCEP2390	TO-220	90	63.6	300	±20	3.00	13.00	15.50			4200.0	63.2	Production
	NCEP2390D	TO-263	90	63.6	300	±20	3.00	13.00	15.50			4200.0	63.2	Production
250V	NCEP02580	TO-220	80	56.6	300	±20	3.00	16.00	18.50			5400.0	76.7	Production
	NCEP02590	TO-220	90	63.6	330	±20	3.00	14.20	15.00			6595.0	90.9	Production
	NCEP02580D	TO-263	80	56.6	300	±20	3.00	16.00	18.50			5400.0	76.7	Production
	NCEP02590D	TO-263	90	63.6	330	±20	3.00	14.00	15.00			6595.0	90.9	Production
	NCEP02515F	TO-220F	15	10.5	30	±20	3.50	220.00	250.00			500.0	11.5	Production
	NCEP02525F	TO-220F	25	17.5	45	±20	3.50	60.00	70.00			1600.0	24.0	Production
	NCEP02580F	TO-220F	80	56.6	55	±20	3.00	16.00	18.50			5400.0	76.7	Production
	NCEP02580T	TO-247	80	56.6	300	±20	3.00	17.00	18.50			6000.0	89.0	Production
	NCEP02590T	TO-247	90	63.6	330	±20	3.00	14.20	15.00			6595.0	90.9	Production
	NCEP025F90T	TO-247	90	63.6	330	±20	3.00	14.20	15.00			6595.0	90.9	Production
	NCEP02525G	DFN5*6	25	17.5	140	±20	3.50	72.00	85.00			1600.0	24.0	Production
	NCEP02515K	TO-252	15	10.6	140	±20	3.50	200.00	250.00			475.0	8.9	Production
	NCEP02525K	TO-252	25	17.5	145	±20	3.50	60.00	70.00			1600.0	24.0	Production
	NCEP02503S	SOP-8	3	2.1	3.5	±20	3.50	100.00	110.00			951.0	17.9	Production
	NCEP02505S	SOP-8	5	3.5	3.5	±20	3.50	60.00	70.00			1600.0	24.0	Production

## Integrated Super-Trench MOSFET 产品列表



类型	Voltage	N/P	Product Name	Package	$I_d$ (A)	$I_d$ (A)	$P_D$ (W)	$V_{GS}$	$V_{TH}$	$R_{on10}$	$R_{on10}$	$R_{on4.5}$	$R_{on4.5}$	$C_{iss}$	$Q_g$	Part Status
					$T_j=25^\circ\text{C}$	$T_j=100^\circ\text{C}$	$T_j=25^\circ\text{C}$		(V)	-Typ	-Typ	-Max	-Typ			
双芯	-40	P	NCEP40PD60G	DFN5*6	-60	42	80	$\pm 20$	-1.70	9.50	12.00	14.00	18.50	2450.0	39.0	New
	40	N	NCEP40ND80G	DFN5*6	80	56.6	70	$\pm 20$	1.50	4.30	5.00	5.50	6.50	2300.0	40.0	Production
	40	N	NCEP40ND80AG	DFN5*6	80	56.6	70	$\pm 20$	3.00	4.70	5.40			1695.0	28.0	New
	40	N	NCEP40ND90G	DFN5*6	90	63.6	85	$\pm 20$	1.70	3.80	4.50	5.00	6.00	3510.0	60.0	New
	40	N	NCEP40ND90AG	DFN5*6	90	63.6	85	$\pm 20$	3.00	4.20	4.90			2290.0	39.5	New
	60	N	NCEP60ND30AG	DFN5*6	30	21	45	$\pm 20$	1.70	12.00	13.50	15.00	17.00	1010.0	21.8	Production
	60	N	NCEP60ND60G	DFN5*6	55	38.9	70	$\pm 20$	3.00	7.80	8.50			1700.0	26.9	Production
	60	N	NCEP068ND60G	DFN5*6	60	42	70	$\pm 20$	3.00	5.90	6.80			1700.0	28.2	New
	60	N	NCEP068ND60AG	DFN5*6	60	42	70	$\pm 20$	1.70	5.90	6.80	7.20	9.00	2145.0	38.0	New
	100	N	NCEP01ND35AG	DFN5*6	35	24.5	50	$\pm 20$	2.00	24.00	28.00	27.00	32.00	1600.0	26.0	Production
半桥	30	N	NCEPB302G	DFN5*6	25	18	28	$\pm 20$	1.50	7.60	8.10	10.00	11.00	822.0	15.0	Production
	30	N			75	52	65	$\pm 20$	1.50	3.90	4.40	5.10	5.60	2200.0	34.6	
	30	N	NCEPB303GU	DFN5*6	30	21	28	$\pm 20$	1.50	5.20	5.70	7.70	8.70	822.0	15.0	Production
	30	N			100	70	80	$\pm 20$	1.70	1.70	2.20	2.40	2.90	3372.0	55.0	

## 沟槽型功率器件 (Trench MOSFET)

Trench MOS 产品通过优化器件结构设计, 采用先进的工艺制造技术, 进一步提高了产品性能, 推出 12V-200V 沟槽型功率 MOSFET (N 沟道和 P 沟道)。我司 Trench MOS 产品与传统 MOSFET 相比具有更高的单胞密度、更短的沟道长度、更低的开态特征电阻、更大的导通电流和更快的开关速度以及更好的工艺兼容性等优点。Trench MOS 产品采用自主创新技术, 率先在国内知名 12 寸晶圆厂代工, 采用更加先进的制造工艺以及知名封装厂封装技术, 确保产品具有更优的 EAS 及 ESD 能力, 更低的导通电阻, 更优的开关特性, 更优异的可靠性。

### 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: P12V-P30V MOSFET 产品列表**(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	-Typ	-Max	-Typ	-Max	-Typ	-Typ	
-12V	NCE2333Y	SOT-23-3L	-6	1.8	±12	-0.70			19.00	30.00	1100.0	11.5	Production
	NCE12P09S	SOP-8	-9	2.5	±12	-0.70			11.50	18.00	2700.0	35.0	Production
	NCE1216	DFN2*2	-16	2.5	±12	-0.70			12.00	18.00	2700.0	35.0	Production
-15V	NCE2301C	SOT-23	-2.6	0.9	±12	-0.70			55.00	80.00	325.0	3.2	Production
	NCE2301A	SOT-23	-3	1	±12	-0.70			42.00	70.00	405.0	9.0	Production
	NCE3417	SOT-23	-4.5	1.7	±12	-0.70			27.00	40.00	700.0	8.1	Production
-16V	NCE2305A	SOT-23	-4.1	1.7	±12	-0.70			29.00	45.00	740.0	7.8	Production
-20V	NCE1013E*	SOT-23	-0.66	0.3	±10	-0.60			362.00	520.00	114.0	1.4	Production
	NCE2301G	SOT-23	-2	0.7	±12	-0.70			103.00	150.00	285.0	2.9	Production
	NCE2301D	SOT-23	-2	0.7	±12	-0.70			102.00	135.00	290.0	3.0	Production
	NCE2301F	SOT-23	-2	0.7	±12	-0.70			88.00	120.00	285.0	2.9	Production
	NCE2301AF	SOT-23	-2	0.7	±12	-1.00			88.00	120.00	285.0	2.9	Production
	NCE2301B	SOT-23	-2.6	0.9	±12	-0.70			78.00	120.00	325.0	3.2	Production
	NCE2301E*	SOT-23	-2.6	0.9	±10	-0.70			87.00	120.00	325.0	3.2	Production
	NCE2301	SOT-23	-3	1	±12	-0.70			64.00	110.00	841.0	3.3	Production
	NCE2321	SOT-23	-3.9	1.4	±12	-0.70			37.00	50.00	560.0	8.5	Production
	NCE3415*	SOT-23	-4	1.4	±10	-0.65			29.00	36.00	1181.1	10.2	Production
	NCE3415E*	SOT-23	-4	1.4	±10	-0.70			30.00	45.00	1173.2	11.3	Production
	NCE3415Y*	SOT-23-3L	-4	1.4	±10	-0.65			34.00	45.00	950.0	12.0	Production
	NCE2305	SOT-23	-4.1	1.7	±12	-0.70			34.00	45.00	1120.0	13.1	Production
	NCE2323	SOT-23	-4.1	1.7	±12	-0.70			34.00	45.00	740.0	9.0	Production
	NCE2321A	SOT-23	-4.5	1.9	±12	-0.60			31.00	40.00	1159.0	14.5	Production
	NCE20P05Y	SOT-23-3L	-5	1.6	±12	-0.70			20.00	25.00	620.0	15.0	Production
NCE20P07N	SOT-23-6L	-7	1.9	±10	-0.55			27.80	35.00	1134.0	12.8	Production	
NCE20P10J	DFN2*2	-10	3.5	±12	-0.85			19.00	25.00	2947.6	33.7	Production	

## 沟槽型 (Trench) 功率 MOSFET

V<sub>DS</sub>: P12V-P30V MOSFET 产品列表(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
-20V	NCE20P45Q	DFN3.3*3.3	-45	80	±10	-0.65			5.80	7.00	3500.0	55.0	Production
	NCE20P70G	DFN5*6	-70	130	±10	-0.60			2.30	3.00	4950.0	100.0	Production
	NCE20P85GU	DFN5*6	-85	150	±10	-0.60			1.40	1.90	12670.0	114.7	Production
-30V	NCE2303	SOT-23	-2	1	±20	-1.60	72.00	130.00	110.00	180.00	226.0	8.5	Production
	NCE3407	SOT-23	-4.1	1.4	±20	-1.50	48.00	60.00	60.00	95.00	650.0	12.5	Production
	NCE3401	SOT-23	-4.2	1.2	±12	-1.00	48.00	55.00	56.00	75.00	880.0	8.5	Production
	NCE3401Y	SOT23-3L	-4.2	1.2	±12	-1.00	47.00	55.00	56.00	75.00	880.0	8.5	Production
	NCE3407A	SOT-23	-4.3	1.5	±20	-1.50	42.00	55.00	50.00	90.00	700.0	14.0	Production
	NCE3407AY	SOT-23-3L	-4.3	1.5	±20	-1.50	40.00	52.00	46.00	65.00	700.0	14.0	Production
	NCE3401A	SOT-23	-4.4	1.3	±12	-1.00	43.00	52.00	50.00	65.00	950.0	9.5	Production
	NCE3401AY	SOT-23-3L	-4.4	1.3	±12	-1.00	41.00	52.00	48.00	65.00	950.0	9.5	Production
	NCE9435	SOP-8	-5.1	2.5	±20	-1.60	43.00	55.00	62.00	90.00	980.0	11.0	Production
	NCE9435A	SOP-8	-5.3	2.6	±20	-1.60	37.00	49.00	60.00	85.00	1040.0	12.0	Production
	NCE30P06J	DFN2*2	-6.5	2.8	±20	-1.30	24.00	30.00	34.00	50.00	520.0	9.2	Production
	NCE3007S	SOP-8	-6.5	3.1	±20	-1.90	29.00	37.00	49.00	72.00	660.0	9.2	Production
	NCE4435	SOP-8	-9.1	3.1	±20	-1.50	16.00	20.00	21.00	35.00	1600.0	30.0	Production
	NCE4435X	SOP-8	-10	3	±20	-1.60	14.00	19.00	19.00	30.00	1400.0	32.2	Production
	NCE30P12S	SOP-8	-12	3	±20	-1.50	11.50	13.00	15.00	21.00	2419.0	44.4	Production
	NCE30P15S	SOP-8	-15	3.1	±20	-1.50	8.50	10.00	11.50	15.00	2900.0	48.0	Production
	NCE30P15AS	SOP-8	-15	3.1	±20	-1.25	8.50	10.00	11.50	15.00	2900.0	48.0	Production
	NCE30P16Q	DFN3.3*3.3	-16	30	±20	-1.60	13.00	18.00	22.00	30.00	1363.0	31.2	Production
	NCE30P20Q	DFN3.3*3.3	-20	35	±20	-1.50	11.50	13.00	16.60	21.00	2130.0	45.6	Production
	NCE30P25Q	DFN3.3*3.3	-25	35	±20	-1.70	8.90	11.00	15.00	20.00	1632.0	45.6	Production
	NCE30P25S	SOP-8	-25	3.5	±20	-1.50	6.40	9.00	8.30	14.00	7506.0	98.9	Production
	NCE30P28Q	DFN3.3*3.3	-28	30	±20	-1.70	6.70	9.00	9.50	17.00	2060.0	30.0	Production
	NCE30P30K	TO-252	-30	35	±20	-1.50	13.00	18.00	22.00	30.00	1363.0	31.2	Production
NCE30P30G	DFN5*6	-30	45	±20	-1.60	7.40	12.00	10.60	15.00	4222.0	81.3	Production	
NCE30P30L	TO-251S	-30	60	±20	-1.60	13.00	18.00	22.00	30.00	1363.0	31.2	Production	
NCE30P50G	DFN5*6	-50	35	±20	-1.50	5.50	7.00	7.00	11.00	7016.0	92.5	Production	
NCE30P55L	TO-251S	-55	110	±20	-1.50	6.80	8.50	10.00	13.00	3736.0	70.7	Production	
NCE30P60G	DFN5*6	-60	70	±20	-1.50	3.20	4.10	4.50	7.00	4580.0	138.0	Production	

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: P40V-P150V MOSFET 产品列表**(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
-40V	NCE40P05S	SOP-8	-5.3	2	±20	-1.90	67.00	80.00	92.00	120.00	600.0	14.0	Production
	NCE40P05Y	SOT-23-3L	-5.3	2	±20	-1.90	73.00	85.00	98.00	120.00	600.0	14.0	Production
	NCE40P06J	DFN2*2	-6	2	±20	-1.60	29.00	35.00	34.00	45.00	964.0	22.9	Production
	NCE40P06S	SOP-8	-6	2.2	±20	-1.90	40.00	45.00	47.00	60.00	1150.0	19.0	Production
	NCE40P07S	SOP-8	-7.8	2.5	±20	-1.70	16.00	25.00	21.00	30.00	1750.0	24.0	Production
	NCE40P13S	SOP-8	-13	3	±20	-1.70	12.00	15.00	15.00	18.00	2800.0	40.0	Production
	NCE40P15K	TO-252	-15	50	±20	-1.80	29.00	35.00	34.00	45.00	930.0	25.0	Production
	NCE40P20Q	DFN3.3*3.3	-20	30	±20	-1.80	14.00	18.00	21.50	28.00	2000.0	31.0	Production
	NCE40P25G	DFN5*6	-25	50	±20	-1.80	11.50	14.00	19.00	24.00	2000.0	31.0	Production
	NCE40P40K	TO-252	-40	50	±20	-1.90	11.50	14.00	18.50	24.00	2960.0	72.0	Production
	NCE40P40D	TO-263	-40	50	±20	-1.90	10.00	14.00	12.50	16.00	2960.0	72.0	Production
	NCE40P70K	TO-252	-70	85	±20	-1.90	7.80	10.00	11.40	15.00	5380.0	106.0	Production
-55V	NCE55P05S	SOP-8	-5	3	±20	-2.60	64.00	80.00			1450.0	26.0	Production
	NCE55P15I	TO-252	-12		±20	-2.60	60.00	75.00			1450.0	26.0	Production
	NCE55P15K	TO-252	-15	35	±20	-2.60	60.00	75.00			1450.0	26.0	Production
	NCE55P15	TO-220	-15	45	±20	-2.60	60.00	75.00			1450.0	26.0	Production
	NCE55P30K	TO-252	-30	65	±20	-2.60	30.00	40.00			3500.0	56.0	Production
	NCE55P30	TO-220	-30	90	±20	-2.60	30.00	40.00			3500.0	56.0	Production
-60V	NCE2309	SOT-23	-1.6	1.5	±20	-2.00	140.00	160.00	160.00	200.00	444.2	11.3	Production
	NCE60P02Y	SOT-23-3L	-2	1.7	±20	-2.00	140.00	160.00	160.00	200.00	452.0	9.0	Production
	NCE60P03Y	SOT-23-3L	-3	1.7	±20	-2.00	66.00	78.00	78.00	98.00	763.0	14.3	Production
	NCE60P03R	SOT-223	-3	1.5	±20	-2.00	140.00	160.00	160.00	200.00	444.2	11.3	Production
	NCE60P04Y	SOT-23-3L	-4	1.5	±20	-1.50	106.00	120.00	135.00	170.00	930.0	25.0	Production
	NCE60P04R	SOT-223	-4	3.1	±20	-1.50	106.00	120.00	135.00	170.00	930.0	25.0	Production
	NCE60P04SN	SOT-23-6L	-4	2	±20	-1.50	106.00	130.00	135.00	170.00	930.0	25.0	Production
	NCE60P05N	SOT-23-6L	-5	3.1	±20	-1.50	55.00	65.00	75.00	85.00	1153.0	15.8	Production
	NCE60P05R	SOT-223	-5	3.1	±20	-1.50	55.00	65.00	75.00	85.00	1153.0	15.8	Production
	NCE60P05BY	SOT-223	-5	1.5	±20	-1.50	55.00	65.00	75.00	85.00	1153.0	15.8	Production
	NCE60P07AS	SOP-8	-7	3	±20	-1.50	55.00	65.00	70.00	85.00	1153.0	15.8	Production
	NCE60P08AS	SOP-8	-8	3	±20	-1.50	44.00	50.00	50.00	60.00	1477.0	30.8	Production
	NCE60P09S	SOP-8	-9	3	±20	-2.60	32.00	38.00			2049.0	35.1	Production
	NCE60P09AS	SOP-8	-9	3	±20	-1.75	30.50	35.00	37.00	50.00	1919.7	36.5	Production
	NCE60P09K	TO252	-9	3	±20	-2.00	165.00	175.00			445.0	11.0	Production
	NCE60P10K	TO-252	-10	45	±20	-1.50	106.00	120.00	135.00	170.00	930.0	25.0	Production
NCE60P12AS	SOP-8	-12	3.5	±20	-1.80	11.00	14.00	13.00	17.00	5604.0	62.1	Production	

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: P40V-P150V MOSFET 产品列表**(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	-Typ	
-60V	NCE60P12K	TO-252	-12	50	±20	-1.50	84.00	100.00	100.00	125.00	1630.7	37.6	Production
	NCE60P16AK	TO-252	-16	65	±20	-1.50	55.00	65.00	65.00	85.00	1108.0	23.4	Production
	NCE60P16AQ	TO-252	-16	30	±20	-1.50	55.00	65.00	65.00	85.00	1108.0	23.4	Production
	NCE60P17AQ	TO-252	-17	32	±20	-1.50	40.00	48.00	48.00	55.00	1630.0	30.0	Production
	NCE60P25	TO-220	-25	90	±20	-2.60	39.00	45.00			3430.0	46.0	Production
	NCE60P25K	TO-252	-25	90	±20	-2.60	39.00	48.00			3430.0	46.0	Production
	NCE60P28AK	TO-252	-28	80	±20	-1.50	43.00	48.00	48.00	55.00	1477.0	30.8	Production
	NCE60P40F	TO-220F	-40	60	±20	-2.60	30.00	35.00			2049.0	35.1	Production
	NCE60P45K	TO-252	-45	90	±20	-2.60	31.00	35.00			2049.0	35.1	Production
	NCE60P45AK	TO-252	-45	90	±20	-1.80	30.50	35.00	37.00	50.00	1919.7	36.5	Production
	NCE60P50	TO-220	-50	95	±20	-2.60	23.00	28.00			6460.0	75.0	Production
	NCE60P50K	TO-252	-50	95	±20	-2.60	23.00	28.00			6460.0	75.0	Production
	NCE60P55K	TO-252	-55	110	±20	-2.60	20.00	26.00			3016.8	49.8	Production
	NCE60P70D	TO-263	-70	200	±20	-2.60	15.50	18.00			3850.0	73.0	Production
	NCE60P82AK	TO-252	-82	150	±20	-1.80	11.00	13.00	13.00	16.00	5604.0	62.1	Production
	NCE60P82A	TO-220	-82	210	±20	-1.80	11.00	13.00	13.00	16.00	5604.0	62.1	Production
NCE60P82AD	TO-263	-82	210	±20	-1.80	11.00	13.00	13.00	16.00	5604.0	62.1	Production	
-100V	NCE01P03S*	SOP-8	-3	2.5	±20	-1.90	170.00	200.00	200.00	230.00	1734.0	33.1	Production
	NCE01P05S*	SOP-8	-5	3.1	±20	-1.90	85.00	100.00	95.00	120.00	3810.0	70.0	Production
	NCE01P13*	TO-220	-13	40	±20	-1.90	170.00	200.00	200.00	230.00	1734.0	33.1	Production
	NCE01P13K*	TO-252	-13	40	±20	-1.90	170.00	200.00	200.00	230.00	1734.0	33.1	Production
	NCE01P18*	TO-220	-18	70	±20	-1.90	85.00	100.00	95.00	120.00	3810.0	70.0	Production
	NCE01P18K*	TO-252	-18	70	±20	-1.90	85.00	100.00	95.00	120.00	3810.0	70.0	Production
	NCE01P18L*	TO-251S	-18	70	±20	-1.90	85.00	100.00	95.00	120.00	3810.0	70.0	Production
	NCE01P18D*	TO-263	-18	70	±20	-1.90	85.00	100.00	95.00	120.00	3810.0	70.0	Production
	NCE01P30*	TO-220	-30	120	±20	-1.90	44.00	58.00	48.00	65.00	3810.0	136.0	Production
	NCE01P30K*	TO-252	-30	120	±20	-1.90	44.00	58.00	48.00	65.00	3810.0	136.0	Production
	NCE01P30I*	TO-251	-30	120	±20	-1.90	44.00	58.00	48.00	65.00	3810.0	136.0	Production
	NCE01P30L*	TO-251S	-30	120	±20	-1.90	44.00	58.00	48.00	65.00	3810.0	136.0	Production
NCE01P30D*	TO-263	-30	120	±20	-1.90	44.00	58.00	48.00	65.00	3810.0	136.0	Production	
-150V	NCE15P25I*	TO-251	-25	160	±20	-1.90	120.00	135.00	131.00	160.00	7650.0	137.0	Production
	NCE15P25JK*	TO-252	-25	160	±20	-1.90	120.00	135.00	131.00	160.00	7650.0	137.0	Production
	NCE15P25*	TO-220	-25	160	±20	-1.90	120.00	135.00	131.00	160.00	7650.0	137.0	Production

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>ds</sub>: N16V-N60V MOSFET 产品列表**(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
16V	NCE1608N	SOT-23-6L	8	1.5	±12	0.70			10.00	12.00	1150.0	15.0	Production
20V	NCE3134*	SOT-23	0.5	0.9	±10	0.60			270.00	380.00	690.0	57.0	Production
	NCE1012E*	SOT-523	0.6	1	±10	0.75			170.00	220.00	60.0	0.8	Production
	NCE2302C	SOT-23	2	0.9	±12	0.75			34.00	50.00	240.0	2.7	Production
	NCE2302B	SOT-23	3.3	1	±12	0.75			29.00	45.00	260.0	2.9	Production
	NCE2302	SOT-23	4	1	±12	0.90			30.00	45.00	300.0	4.0	Production
	NCE2004Y	SOT-23-3L	4	1	±12	0.70			19.00	24.00	550.0	6.0	Production
	NCE2312	SOT-23	5	1.25	±12	0.65			18.00	33.00	500.0	10.0	Production
	NCE2312A	SOT-23	5	1.25	±12	0.65			17.00	28.00	780.0	11.0	Production
	NCE2006Y	SOT-23-3L	6	1.5	±12	0.70			10.50	15.00	620.0	15.0	Production
	NCE3420	SOT-23	6	1.25	±12	0.70			18.00	33.00	424.5	12.0	Production
	NCE3416*	SOT-23	6.5	1.25	±10	0.70			19.00	24.00	660.0	8.0	Production
	NCE2012	SOP-8	12	2.5	±12	0.80			6.00	8.00	2000.0	42.0	Production
	NCE2014ES*	SOP-8	14	3	±10	0.70			5.00	7.00	1710.0	17.5	Production
	NCE2025I	TO-251	25	40	±12	0.70			10.50	13.00	900.0	15.0	Production
	NCE2025S	SOP-8	25	3	±12	0.75			3.50	4.00	5300.0	64.9	Production
	NCE2030K	TO-252	30	40	±12	0.70			11.00	13.00	1544.0	23.5	Production
	NCE2030U	TO-262	30	40	±12	0.70			10.50	13.00	900.0	15.0	Production
	NCE2030	TO-220	30	40	±12	0.70			11.00	13.00	1544.0	23.5	Production
NCE2060K	TO-252	60	60	±12	0.80			4.80	6.00	2000.0	27.0	Production	
NCE2090K	TO-252	90	83	±12	0.75			4.00	5.30	2016.0	15.0	Production	
30V	NCE3402	SOT-23	3	0.9	±20	1.50	50.00	65.00	65.00	75.00	235.0	10.0	Production
	NCE3402A	SOT-23	3	0.9	±12	0.85	50.00	65.00	55.00	70.00	235.0	4.7	Production
	NCE2304	SOT-23	3.6	1.7	±20	1.50	39.00	46.00	61.00	73.00	230.0	4.0	Production
	NCE3400X	SOT-23	5.1	1.3	±12	0.90	26.50	33.00	29.00	39.00	595.0	9.3	Production
	NCE3400E*	SOT-23	5.3	1.4	±12	0.90	21.00	33.00	23.00	40.00	597.0	9.1	Production
	NCE3404	SOT-23	5.8	1.9	±20	1.60	20.00	28.00	25.00	43.00	485.8	12.6	Production
	NCE3404Y	SOT-23-3L	5.8	1.9	±20	1.60	23.00	28.00	27.50	40.00	485.8	12.6	Production
	NCE3400A	SOT-23	5.8	1.9	±12	0.90	24.00	40.00	28.00	42.00	825.0	10.0	Production
	NCE3400AY	SOT-23-3L	5.8	1.9	±12	0.90	19.80	26.00	22.00	38.00	825.0	10.0	Production
	NCE3400	SOT-23	5.8	1.4	±12	0.90	22.00	35.00	24.00	41.00	820.0	9.5	Production
	NCE3406N	SOT-23-6L	6	2	±12	1.40	22.00	35.00	24.00	41.00	820.0	9.5	Production
	NCE3008Y	SOT-23-3L	8	2	±20	1.50	13.50	17.00	16.00	22.00	784.0	19.4	Production
	NCE3008N	SOT-23-6L	8	2	±20	1.50	13.50	17.00	16.00	22.00	784.0	19.4	Production
	NCE3008M	SOT-89	8	2.5	±20	1.60	19.80	22.50	27.00	31.00	564.0	14.2	Production
NCE3008XM	SOT-23-6L	8	2	±20	0.90	24.00	33.00	26.00	39.00	595.0	9.3	Production	

## 沟槽型 (Trench) 功率 MOSFET

 V<sub>DS</sub>: N16V-N60V MOSFET 产品列表(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
30V	NCE3009S	SOP-8	9	2.5	±20	1.60	7.60	9.00	11.50	15.00	1210.0	17.5	Production
	NCE3010S	SOP-8	10	2.5	±20	1.60	8.00	12.00	11.00	16.00	1550.0	13.0	Production
	NCE3011E*	SOP-8	11	2.5	±20	1.50	7.00	10.00	10.00	14.00	1155.0	17.5	Production
	NCE3013J	DFN2*2	13	3	±20	1.60	9.50	12.00	15.00	20.00	1066.0	24.0	Production
	NCE3015S	SOP-8	15	2.5	±20	1.50	5.30	7.00	7.40	16.00	1400.0	32.3	Production
	NCE3018AS	SOP-8	18	3	±20	1.10	5.50	6.50	7.50	10.00	2100.0	41.0	Production
	NCE3020Q	DFN3.3*3.3	20	20	±20	1.50	7.60	9.00	11.50	15.00	1210.0	27.5	Production
	NCE8736	SOP-8	21	2.5	±20	1.60	2.80	4.00	3.80	5.50	2987.0	70.0	Production
	NCE3025Q	DFN3.3*3.3	25	25	±20	1.60	6.20	8.50	10.50	14.00	1530.0	15.0	Production
	NCE3025G	DFN5*6	25	30	±20	1.60	7.00	10.00	10.50	14.00	1593.9	32.6	Production
	NCE3030K	TO-252	30	30	±20	1.50	9.50	12.00	13.00	25.00	938.0	17.5	Production
	NCE3035Q	DFN3.3*3.3	35	35	±20	1.60	6.50	7.00	9.00	12.00	2330.0	45.0	Production
	NCE3035G	DFN5*6	35	40	±20	1.60	4.80	5.50	8.20	9.50	2330.0	45.0	Production
	NCE3040Q	DFN3.3*3.3	40	25	±20	1.60	4.50	5.20	7.10	11.00	1400.0	32.3	Production
	NCE3050	TO-220	50	60	±20	1.60	6.50	8.00	10.00	16.00	2000.0	32.3	Production
	NCE3050I	TO-251	50	60	±20	1.60	6.50	8.00	10.00	16.00	2000.0	32.3	Production
	NCE3050K	TO-252	50	60	±20	1.60	6.50	8.00	10.00	16.00	2000.0	32.3	Production
	NCE3050KA	TO-252	50	60	±20	1.10	6.50	8.00	10.00	16.00	2000.0	23.0	Production
	NCE3065G	DFN5*6	65	65	±20	1.50	4.30	5.00	6.90	11.00	1400.0	32.3	Production
	NCE3065Q	DFN3.3*3.3	65	45	±20	1.60	4.20	5.50	6.00	8.00	1784.0	38.4	Production
	NCE3065K	TO-252	65	65	±20	1.50	4.50	5.20	7.10	11.00	1400.0	32.3	New
	NCE3080K	TO-252	80	83	±20	1.60	5.50	6.50	7.50	10.00	2016.0	60.5	Production
	NCE3080I	TO-251	80	83	±20	1.60	5.50	6.50	7.50	10.00	2016.0	60.5	Production
	NCE3080L	TO-251S	80	83	±20	1.60	5.50	6.50	7.50	10.00	2016.0	60.5	Production
	NCE3080KA	TO-252	80	83	±20	1.10	5.50	6.50	7.50	10.00	2330.0	51.0	Production
	NCE3080IA	TO-251	80	83	±20	1.10	5.50	6.50	7.50	10.00	2330.0	51.0	Production
	NCE3090K	TO-252	90	105	±20	1.70	4.10	5.80	5.90	8.00	3433.0	60.0	Production
	NCE3095K	TO-252	95	100	±20	1.70	3.70	4.40	5.50	7.50	1784.0	38.4	Production
	NCE3095G	DFN5*6	95	80	±20	1.50	3.50	4.20	5.30	7.30	1784.0	38.4	Production
	NCE3095D	TO-263	95	120	±20	1.50	3.40	4.20	5.20	7.50	1784.0	38.4	Production
NCE30H10	TO-220	100	110	±20	1.60	4.00	5.50	5.00	8.00	3400.0	70.0	Production	
NCE30H10K	TO-252	100	110	±20	1.60	4.00	5.50	5.00	8.00	3400.0	70.0	Production	
NCE30H10G	DFN5*6	100	65	±20	1.70	1.90	2.50	2.90	3.50	6268.0	115.0	Production	
NCE30H11K	TO-252	110	70	±20	1.60	2.60	3.00	3.60	4.20	2987.0	70.0	Production	
NCE30H11BK	TO-252	110	68	±20	1.60	2.70	3.20	3.90	5.20	3009.0	66.3	Production	
NCE30H11BG	DFN5*6	110	68	±20	1.60	2.30	2.90	3.80	5.00	3009.0	66.3	Production	

## 沟槽型 (Trench) 功率 MOSFET

V<sub>ds</sub>: N16V-N60V MOSFET 产品列表(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
30V	NCE30H11G	DFN5*6	110	70	±20	1.10	1.78	2.40	2.25	3.00	7023.0	140.0	Production
	NCE30H12K	TO-252	120	120	±20	1.60	3.00	3.50	4.20	5.00	4120.0	79.0	Production
	NCE30H14K	TO-252	140	130	±20	1.60	2.50	3.00	2.90	4.80	3780.0	80.0	Production
	NCE30H15	TO-220	150	130	±20	1.70	2.30	3.00	3.20	4.00	6297.0	114.0	Production
	NCE30H15K	TO-252	150	130	±20	1.70	3.00	4.00	4.40	5.00	6297.0	114.0	Production
	NCE30H15B	TO-220	150	130	±20	1.60	1.80	2.20	2.50	3.50	5235.0	106.0	New
	NCE30H15BK	TO-252	150	130	±20	1.60	2.10	2.50	2.90	4.00	5235.0	106.0	New
NCE30H29D	TO-263	290	290	±20	1.60	1.50	2.00	2.00	2.60	13873.0	231.0	Production	
40V	NCE4009S	SOP-8	9	2	±20	1.50	12.90	16.00	18.90	24.00	964.0	22.9	Production
	NCE4012S	SOP-8	12	3	±20	1.80	8.40	12.00	12.30	18.00	1780.0	30.0	Production
	NCE4015S	SOP-8	15	3.1	±20	1.80	6.10	8.20	11.40	25.00	3090.0	60.0	Production
	NCE4060K	TO-252	60	65	±20	1.80	7.30	8.50	15.00	18.00	1800.0	29.0	Production
	NCE4080	TO-220	80	80	±20	1.80	4.40	6.50	10.00	15.00	4010.0	50.0	Production
	NCE4080K	TO-252	80	80	±20	1.80	5.20	7.00	10.00	15.00	2662.0	54.3	Production
	NCE4090G	DFN5*6	90	75	±20	1.80	3.30	4.00	5.60	7.00	5000.0	90.0	Production
	NCE40H10K	TO-252	100	105	±20	1.80	3.90	4.30	7.00	8.80	4585.0	85.0	New
	NCE40H11K	TO-252	110	105	±20	1.60	3.40	4.00	4.60	6.50	3650.0	84.0	New
	NCE40H12K	TO-252	120	130	±20	1.80	3.60	4.00	5.80	7.00	5400.0	75.0	Production
	NCE40H12	TO-220	120	130	±20	1.80	3.60	4.00	5.80	7.00	5400.0	75.0	Production
	NCE40H21	TO-220	210	310	±20	1.80	2.30	2.60	3.70	5.00	11400.0	236.7	Production
	NCE40H25LL	TOLL-8	250	350	±20	1.80	1.45	2.00	2.30	3.50	11400.0	236.7	New
	NCE40H29D	TO-263	290	310	±20	1.80	1.60	2.10	2.90	3.60	10331.0	239.0	Production
NCE40H30D	TO-263	300	350	±20	1.80	1.40	1.80	1.90	2.50	11635.0	249.0	Production	
NCE40H32LL	TOLL-8	320	400	±20	1.60	1.00	1.30	1.60	2.00	11635.0	249.0	Production	
45V	NCE4528K	TO-252	28	45	±20	1.50	13.00	15.00	18.00	22.00	964.0	22.9	Production
	NCE4558K	TO-252	58	65	±20	1.90	8.00	10.00	11.60	18.00	1800.0	36.8	Production
50V	NCE5015S	SOP-8	15	3	±20	1.20	5.70	7.60	6.70	8.60	4100.0	93.0	Production
	NCE5080K	TO-252	80	105	±20	1.30	4.90	6.40	5.90	9.00	3600.0	65.0	Production
60V	2N7002K*	SOT-23	0.3	0.35	±20	1.30	1800.00	2200.00	1950.00	3000.00	20.0	1.7	Production
	NCE72R60D*	DFN1*1	0.41	0.35	±20	1.30	1150.00	4700.00	1300.00	5000.00	21.0	1.7	Production
	NCE6003	SOT-23	3	1.7	±20	1.30	78.00	105.00	95.00	125.00	510.0	14.6	Production
	NCE6003X	SOT-23	3	1.7	±20	1.30	68.00	78.00	80.00	96.00	270.0	10.2	Production
	NCE6003Y	SOT23-3L	3	1.7	±20	1.20	78.00	105.00	95.00	125.00	510.0	14.6	Production
	NCE6003XY	SOT23-3L	3	1.7	±20	1.30	68.00	78.00	80.00	96.00	270.0	10.2	New
	NCE6003M	SOT-89	3	1.7	±20	1.20	78.00	105.00	95.00	125.00	510.0	14.6	Production
	NCE6003XM	SOT23-3L	3	1.7	±20	1.30	68.00	78.00	80.00	96.00	270.0	11.5	New

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: N16V-N60V MOSFET 产品列表**(产品名后带"\*"表示为带 ESD 的产品,带"d"表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
60V	NCE2308X	SOT-23	3	1.7	±20	1.30	68.00	78.00	80.00	96.00	270.0	10.2	New
	NCE3055	SOT-89	3	1.7	±20	1.30	73.00	100.00	90.00	120.00	247.0	6.0	Production
	NCE6005AR	SOT-223	5	2	±20	1.60	26.00	30.00	32.00	38.00	979.0	22.0	Production
	NCE6005AN	SOT-23-6L	5	2	±20	1.60	26.00	30.00	32.00	38.00	979.0	22.0	Production
	NCE6007S	SOP-8	7	2.1	±20	1.40	24.00	30.00	27.00	35.00	1920.0	50.0	Production
	NCE6008AS	SOP-8	8	2.1	±20	1.60	13.50	16.00	18.00	22.00	1600.0	38.5	Production
	NCE6009AS	SOP-8	9	2.6	±20	1.80	9.30	16.00	12.70	18.00	2750.0	60.0	Production
	NCE6009XS	SOP-8	9	2.6	±20	1.80	9.30	11.00	12.70	15.00	2750.0	60.0	New
	NCE6010J	DFN2*2	10	3	±20	1.60	24.50	35.00	30.50	40.00	570.0	25.3	Production
	NCE6012AS	SOP-8	12	3	±20	1.30	6.50	8.00	7.50	9.00	4100.0	93.0	Production
	NCE6012CS	SOP-8	12	3	±20	2.80	9.00	12.00			3080.0	55.5	Production
	NCE6015K	TO-252	15	3.2	±20	1.90	43.00	55.00	52.00	65.00	830.0	15.0	Production
	NCE6020AK	TO-252	20	45	±20	1.60	20.00	23.00	25.00	30.00	973.2	25.0	Production
	NCE6020AL	TO-251S	20	30	±20	1.60	24.00	25.00	25.50	31.00	973.2	25.0	Production
	NCE6020AI	TO-251	20	30	±20	1.60	21.00	25.00	25.50	31.00	973.2	25.0	Production
	NCE6020A	TO-220	20	30	±20	1.60	21.00	25.00	25.50	31.00	973.2	25.0	Production
	NCE6020AQ	DFN3.3*3.3	20	20	±20	1.60	20.00	23.00	25.00	30.00	973.2	25.0	Production
	NCE6025Q	DFN3.3*3.3	25	35	±20	1.60	12.00	14.00	16.00	19.00	1630.0	39.0	New
	NCE6525Q	DFN3.3*3.3	25	35	±20	1.90	15.00	20.00	20.00	25.00	2050.0	50.0	Production
	NCE6030K	TO-252	30	50	±20	1.80	23.00	27.00			1900.0	30.0	Production
	NCE6042AG	DFN5*6	42	42	±20	1.60	12.00	14.00	16.00	19.00	1630.0	39.0	New
	NCE6045G	DFN5*6	45	60	±20	1.80	10.00	13.00	13.00	17.00	2180.0	58.0	Production
	NCE6045XG	DFN5*6	45	60	±20	1.90	7.40	9.00	11.40	14.00	2750.0	60.0	New
	NCE6045XAG	DFN5*6	45	60	±20	3.00	8.00	9.20			2970.0	60.0	New
	NCE6050KA	TO-252	50	85	±20	1.60	12.00	13.80	16.00	19.20	1630.0	39.0	Production
	NCE6050IA	TO-251	50	85	±20	1.60	12.00	14.00	16.00	19.00	1630.0	39.0	Production
	NCE6050A	TO-220	50	85	±20	1.60	13.00	15.00	17.00	20.00	1630.0	39.0	Production
	NCE6058	TO-220	58	85	±20	3.00	13.00	16.00			2498.0	36.0	Production
	NCE6058K	TO-252	58	85	±20	3.00	13.00	16.00			2498.0	36.0	Production
	NCE6065G	DFN5*6	65	52	±20	2.80	5.50	6.30			4000.0	90.0	New
NCE6065AG	DFN5*6	65	52	±20	1.30	5.50	6.30	6.50	7.80	4000.0	90.0	New	
NCE6080	TO-220	80	110	±20	2.80	6.00	7.00			4000.0	90.0	Production	
NCE6080D	TO-263	80	110	±20	2.80	6.00	6.90			4000.0	90.0	Production	
NCE6080K	TO-252	80	110	±20	2.80	6.00	7.00			4000.0	90.0	Production	
NCE6080EK	TO-252	80	110	±20	2.80	6.00	6.90			4000.0	90.0	New	
NCE6080ED	TO-263	80	110	±20	2.80	6.00	6.90			4000.0	90.0	New	

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>Ds</sub>: N68V-N85V MOSFET 产品列表**(产品名后带"\*"表示为带 ESD 的产品,带"d"表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
60V	NCE6080A	TO-220	80	110	±20	1.30	5.50	6.30	6.50	7.80	4000.0	90.3	Production
	NCE6080AI	TO-251	80	110	±20	1.30	5.50	6.30	6.50	7.80	4000.0	90.3	Production
	NCE6080AK	TO-252	80	110	±20	1.30	5.50	6.30	6.50	7.80	4000.0	90.3	Production
	NCE6080AT	TO-247	80	110	±20	1.30	5.50	6.30	6.50	7.80	4000.0	90.3	New
	NCE60H10	TO-220	100	170	±20	3.00	4.00	4.60			5200.0	100.0	Production
	NCE60H10K	TO-252	100	170	±20	3.00	4.00	4.60			4900.0	100.0	Production
	NCE60H10F	TO-220F	100	45	±20	3.00	5.70	6.50			4750.0	94.8	Production
	NCE60H15A	TO-220	150	220	±20	3.00	2.80	3.10			7872.0	152.0	Production
	NCE60H15AD	TO-263	150	220	±20	3.00	2.80	3.10			7820.0	152.0	Production
	NCE60H15AT	TO-263	150	220	±20	3.00	2.80	3.10			7820.0	152.0	New
	NCE60H28LL	TOLL	280	3	±20	1.50	1.80				10816.0	197.0	New
68V	NCE6890	TO-220	90	130	±20	3.00	6.50	7.50			3300.0	35.0	Production
	NCE6890K	TO-252	90	130	±20	3.00	6.50	7.50			3300.0	35.0	Production
	NCE6890D	TO-263	90	130	±20	3.00	6.50	7.50			3300.0	35.0	Production
69V	NCE6990	TO-220	90	130	±20	3.00	5.70	7.00			3400.0	94.0	Production
	NCE6990D	TO-263	90	130	±20	3.00	5.70	7.00			3400.0	94.0	Production
70V	NCE70H10F	TO-220F	100	45	±20	2.85	4.80	5.50			4900.0	100.0	Production
71V	NCE7190A	TO-220	90	170	±20	3.00	4.80	5.50			4900.0	100.0	Production
75V	NCE7560K	TO-252	60	140	±20	3.00	6.80	8.50			4400.0	100.0	Production
	NCE7580	TO-220	80	170	±25	2.85	6.50	8.00			4400.0	100.0	Production
	NCE75H21T	TO-247	210	330	±20	3.00	2.90	4.00			11000.0	250.0	Production
	NCE75H21	TO-220	210	310	±20	3.00	2.80	4.00			11000.0	250.0	Production
	NCE75H21D	TO-263	210	310	±20	3.00	3.00	4.00			11000.0	250.0	Production
82V	NCE8295A	TO-220	95	170	±20	3.00	1.70	2.20			25500.0	586.0	Production
	NCE8295AD	TO-263	95	170	±20	3.00	6.00	7.00			5633.0	109.3	Production
	NCE8295AG	DFN5*6	95	140	±20	3.00	6.00	7.00			5633.0	109.3	Production
	NCE8295AI	TO-251	95	170	±20	3.00	6.00	7.00			5633.0	109.3	New
	NCE8295AK	TO-252	95	170	±20	3.00	6.60	8.00			5633.0	109.3	Production
	NCE82H140	TO-220	140	220	±20	3.00	6.00	7.00			5633.0	109.3	Production
	NCE82H140LL	TOLL-8	140	250	±20	3.00	4.30	5.20			7900.0	158.0	Production
	NCE82H140D	TO-263	140	220	±20	3.00	4.00	5.00			7900.0	158.0	Production
	NCE82H160	TO-220	160	285	±20	3.00	4.30	5.20			7900.0	158.0	New
	NCE82H160D	TO-263	160	285	±20	3.00	3.80	4.50			11180.0	201.0	New
85V	NCE85H25	TO-220	250	350	±20	3.00	3.80	4.50			11180.0	201.0	New
	NCE85H25T	TO-247	250	350	±20	3.00	3.00	3.50			16880.0	296.0	New

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: N100V-N200V MOSFET 产品列表**(产品名后带"\*"表示为带 ESD 的产品,带"d"表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =25℃	(V)	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
100V	BSS123K*	SOT-23	0.17	0.35	±20	1.50	6500.00	7200.00	7000.00	8000.00	29.0	1.7	Production
	NCE0102Z	TO-92	2	1.25	±20	1.80	210.00	240.00			190.0	5.2	Production
	NCE0102	SOT-23	2	1.25	±20	1.80	190.00	220.00	200.00	240.00	360.6	12.0	Production
	NCE0102A	SOT-23	2	1.25	±20	2.70	220.00	240.00			406.0	13.6	Production
	NCE0102E *	SOT-23	2	1.25	±20	1.80	195.00	230.00	240.00	250.00	355.2	11.3	Production
	NCE0102M	SOT-89	2	1.25	±20	1.80	210.00	240.00			190.0	5.2	Production
	NCE0103	SOT-23	3	1.5	±20	1.50	136.00	160.00	140.00	170.00	650.0	20.0	Production
	NCE0103M	SOT-89	3	1.5	±12	1.10	136.00	160.00	140.00	170.00	650.0	20.0	Production
	NCE0103Y	SOT23-3L	3	1.5	±20	1.50	136.00	160.00	140.00	170.00	650.0	20.0	Production
	NCE0104S	SOP-8	3	1.5	±20	1.50	130.00	160.00	135.00	170.00	650.0	20.0	Production
	NCE0104AN	SOT23-6L	4	2	±20	1.50	84.00	100.00	94.00	118.00	882.0	24.1	Production
	NCE0106Z	TO-92	6	3	±20	1.80	110.00	140.00			690.0	15.5	Production
	NCE0106R	SOT-223	6	3	±20	1.80	110.00	140.00			690.0	15.5	Production
	NCE0106ZA	TO-92	6	3	±20	1.50	108.00	130.00	115.00	140.00	892.0	25.2	Production
	NCE0106AR	SOT-223	6	3	±20	1.50	108.00	130.00	115.00	140.00	892.0	25.2	Production
	NCE0107AK	TO-252	7	40	±12	1.10	136.00	160.00	140.00	170.00	650.0	20.6	Production
	NCE0108AS	SOP-8	8	2.6	±20	1.80	22.00	28.00			2479.0	67.2	Production
	NCE0110K	TO-252	9.6	40	±20	1.80	108.00	140.00			690.0	15.5	Production
	NCE0110AK	TO-252	10	40	±20	1.50	95.00	130.00	100.00	140.00	980.0	21.5	Production
	NCE0110AS	SOP-8	10	3.1	±20	1.30	14.00	17.00	15.20	20.00	3835.0	90.0	Production
	NCE0112AK	TO-252	12	42	±20	1.60	82.00	17500.00	90.00	120.00	882.0	24.1	Production
	NCE0115K	TO-252	15	50	±20	1.60	80.00	100.00	85.00	120.00	830.0	22.3	Production
	NCE0115AK	TO-252	15	50	±20	1.20	75.00	90.00	80.00	110.00	830.0	22.3	Production
	NCE0117	TO-220	17	55	±20	1.80	56.00	70.00	65.00	85.00	1350.0	30.0	Production
	NCE0117I	TO-251	17	55	±20	1.80	56.00	70.00	65.00	85.00	1350.0	30.0	Production
	NCE0117K	TO-252	17	55	±20	1.80	56.00	70.00	65.00	85.00	1350.0	30.0	Production
	NCE0125AK	TO-252	25	70	±20	1.60	31.00	36.00			3000.0	70.4	Production
	NCE0125AI	TO-251	25	70	±20	1.60	31.00	36.00			3000.0	70.4	Production
	NCE0130KA	TO-252	30	85	±20	1.90	25.00	32.00	28.00	35.00	2479.0	67.2	Production
	NCE0130A	TO-220	30	85	±20	1.90	25.00	32.00	28.00	35.00	2479.0	67.2	Production
NCE0130GA	DFN5*6	30	85	±20	1.90	25.00	32.00	28.00	35.00	2479.0	67.2	Production	
NCE0140KA	TO-252	40	140	±20	1.10	12.00	17.00	13.00	18.00	3762.0	96.7	Production	
NCE0140IA	TO-251	40	140	±20	1.10	12.00	17.00	13.00	18.00	3400.0	94.0	Production	
NCE0140AK2	TO-252	40	140	±20	1.20	13.00	15.00			3969.0	83.0	Production	
NCE0140K2	TO-252	40	140	±20	3.00	13.00	15.00			3400.0	94.0	Production	

## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: N100V-N200V MOSFET 产品列表**(产品名后带"\*"表示为带 ESD 的产品,带"d"表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
100V	NCE0140I2	TO-251	40	140	±20	3.00	13.00	15.00			3400.0	94.0	Production
	NCE0157A2	TO-220	57	160	±20	3.00	12.50	14.50			3969.0	146.1	Production
	NCE0157A2D	TO-263	57	160	±20	3.00	12.50	14.50			3969.0	146.1	New
	NCE0157AK	TO-252	57	170	±20	1.20	12.00	16.00			4118.0	111.0	Production
	NCE70N100I	TO-251	57	170	±20	1.50	12.00	16.00			4118.0	111.0	Production
	NCE0159	TO-220	59	180	±20	3.00	11.00	15.00			4900.0	95.0	Production
	NCE01H10	TO-220	100	200	±20	3.00	9.90	13.00			4800.0	85.0	Production
	NCE01H10D	TO-263	100	200	±20	3.00	9.90	13.00			4800.0	85.0	Production
140V	NCE1490	TO-220	90	310	±20	3.00	10.50	13.00			8000.0	160.0	Production
150V	NCE1502R	SOT-223	2	2	±20	2.00	260.00	300.00			235.0	8.0	Production
	NCE1504R	SOT-223	4	4	±20	2.00	130.00	160.00			900.0	19.0	Production
	NCE1505S	SOP-8	5.2	3.5	±20	3.20	31.00	44.00			1700.0	35.8	Production
	NCE1507AK	TO-252	7	30	±20	2.00	285.00	300.00	235.00	255.00	544.0	20.3	Production
	NCE1512IA	TO-251	12	50	±20	2.00	130.00	160.00			900.0	19.0	Production
	NCE1520	TO-220	20	90	±20	3.40	70.00	80.00			2000.0	17.0	Production
	NCE1520K	TO-252	20	90	±20	3.40	65.00	80.00			1810.0	45.0	Production
	NCE1520KA	TO-252	20	90	±20	1.60	62.00	75.00	68.00	80.00	2500.0	60.0	Production
	NCE1540K	TO-252	40	140	±20	3.20	35.00	45.00			4200.0	105.0	Production
	NCE1540I	TO-251	40	140	±20	3.20	35.00	45.00			4200.0	105.0	Production
	NCE1540AD	TO-263	40	140	±12	1.05	35.00	45.00	36.00	48.00	4200.0	105.0	Production
	NCE1540KA	TO-252	40	140	±12	1.05	35.00	45.00	36.00	48.00	43000.0	63.8	Production
	NCE1550	TO-220	50	220	±20	3.20	19.50	23.00			6313.1	151.0	Production
	NCE1550F	TO-220F	50	65	±20	3.20	19.50	23.00			3250.0	163.0	Production
	NCE1570	TO-220	70	310	±20	3.00	13.00	18.00			6644.0	148.4	Production
NCE1579C	TO-220	79	310	±20	3.10	11.00	13.00			7200.0	160.0	Production	
180V	NCE1805S	SOP-8	5	3	±20	3.00	50.00	60.00			4118.0	90.7	Production
	NCE1810AK	TO-252	10	55	±20	1.80	172.00	200.00	180.00	220.00	900.0	24.0	Production

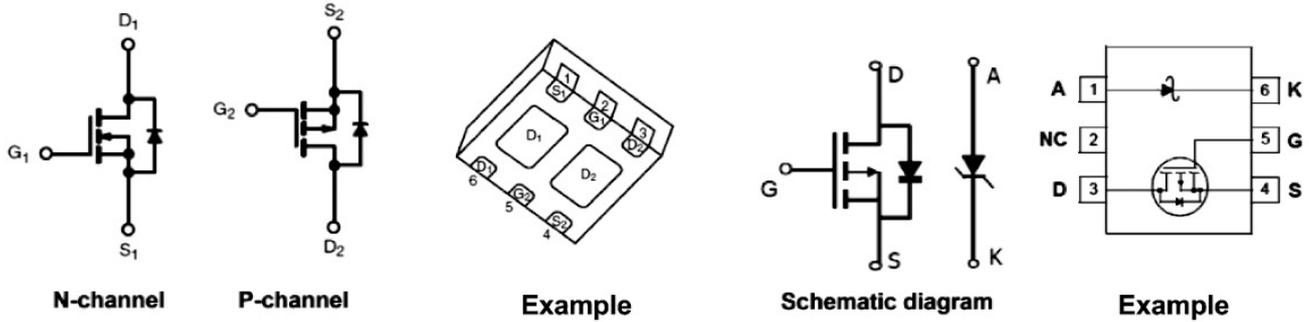
## 沟槽型 (Trench) 功率 MOSFET

**V<sub>DS</sub>: N100V-N200V MOSFET 产品列表**(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

Voltage	Part Number	Package	I <sub>D</sub> (A)		V <sub>GS</sub> (V)	V <sub>TH</sub> -Typ (V)	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub> -Typ (pF)	Q <sub>g</sub> -Typ (nC)	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C			-Typ (mR)	-Max (mR)	-Typ (mR)	-Max (mR)			
200V	NCE0202ZA	TO-92	2	3	±20	1.70	520.00	580.00	540.00	600.00	580.0	12.0	Production
	NCE0202VA	TO-126	2	3	±20	1.70	520.00	580.00	540.00	600.00	580.0	12.0	Production
	NCE0202M	SOT-89	2	1.5	±20	1.70	520.00	580.00	540.00	600.00	580.0	12.0	Production
	NCE0203S	SOP-8	3.9	3	±20	3.00	56.00	79.00			4200.0	38.0	Production
	NCE0205IA	TO-251	5	30	±20	1.70	520.00	580.00	540.00	600.00	580.0	12.0	Production
	NCE0208KA	TO-252	8	55	±20	1.70	260.00	300.00	280.00	320.00	540.0	16.0	Production
	NCE0208IA	TO-251	8	55	±20	1.70	260.00	300.00	280.00	320.00	540.0	16.0	Production
	NCE0224K	TO-252	24	150	±20	3.20	64.00	80.00			4565.8	91.9	Production
	NCE0224F	TO-220F	24	45	±20	3.20	64.00	80.00			4200.0	60.0	Production
	NCE0224D	TO-263	24	150	±20	3.20	64.00	80.00			4200.0	60.0	Production
	NCE0224A	TO-220	24	150	±20	1.50	61.00	80.00	62.00	85.00	4200.0	60.0	Production
	NCE0224AK	TO-252	24	140	±20	1.50	61.00	80.00	62.00	85.00	4200.0	60.0	Production
	NCE0224AF	TO-220F	24	50	±20	1.50	61.00	80.00	62.00	85.00	4200.0	60.0	Production
	NCE0224DA	TO-263	24	150	±20	1.50	61.00	80.00	62.00	85.00	4200.0	60.0	Production
	NCE0240	TO-220	40	220	±20	3.20	36.40	41.00			6500.0	163.0	Production
	NCE0240F	TO-220F	40	60	±20	3.20	36.40	41.00			6500.0	163.0	Production
	NCE0250D	TO-263	50	270	±20	3.20	30.00	40.00			5460.0	150.0	Production
	NCE0260	TO-220	60	285	±20	3.20	24.00	30.00			6200.0	130.0	Production
	NCE0260P	TO-3P	60	285	±20	3.20	24.00	30.00			6200.0	130.0	Production
	NCE0260T	TO-247	60	290	±20	3.20	24.00	30.00			6200.0	130.0	Production
NCE0270T	TO-247	70	330	±20	3.00	16.50	24.00			13000.0	326.0	Production	
NCE0275	TO-220	75	370	±20	3.60	18.00	24.00			6990.0	140.0	Production	
NCE0275T	TO-247	75	380	±20	3.60	18.00	24.00			6990.0	140.0	Production	

## Integrated Trench MOSFET 产品列表

(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)



	Voltage	Part Number	Package	N/P	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub> (V)	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status		
					T <sub>J</sub> =25°C	T <sub>J</sub> =25°C		-Typ	-Typ	-Max	-Typ	-Max	-Typ	-Typ			
N+P	-12V	NCE1205	DFN2*2	P	-5	1.9	±20	-0.70					60.00	74.00	520.0	9.2	Production
	12V			N	5	1.9	±20	0.70					28.00	32.00	495.0	6.6	
	-20V	NCE2003	SOT-23-6L	P	-3	0.8	±20	-0.70					78.00	110.00	325.0	3.2	Production
	20V			N	3	0.8	±20	0.70					29.00	45.00	260.0	2.9	
	-20V	NCE20NP1006S	SOP-8	P	-6	2	±20	-0.70					34.00	45.00	550.0	7.0	Production
	20V			N	10	2	±20	0.70					12.00	14.00	691.0	10.2	
	-30V	NCE6602N	SOT-23-6L	P	-2.7	1.2	±20	-1.60	69.00	100.00	110.00	150.00	278.0	5.8	Production		
	30V			N	3.5	1.2	±20	1.50	36.00	58.00	60.00	95.00	251.0	10.0			
	-30V	NCE4503S	SOP-8	P	-9.1	2.5	±20	-1.50	15.00	20.00	21.00	35.00	1600.0	30.0	Production		
	30V			N	10	2.5	±20	1.60	7.50	13.50	13.00	20.00	1550.0	13.0			
	-30V	NCE30NP07S	SOP-8	P	-7	2	±20	-1.70	29.00	35.00	48.00	75.00	691.0	16.3	Production		
	30V			N	6.5	2	±20	1.60	16.80	24.00	25.30	37.00	485.0	12.6			
	-30V	NCE4606	SOP-8	P	-7	2	±20	-1.70	29.00	35.00	55.00	75.00	729.4	16.6	Production		
	30V			N	6.5	2	±20	1.60	16.80	24.00	25.30	37.00	530.3	14.2			
	-30V	NCE4606A	SOP-8	P	-7	2	±20	-1.55	26.50	35.00	31.50	50.00	956.1	21.3	Production		
	30V			N	6.5	2	±20	1.60	16.80	25.00	25.30	48.00	530.3	14.2			
	-30V	NCE4606B	SOP-8	P	-6	2	±20	-1.70	32.00	39.00	38.50	51.00	700.0	14.0	Production		
	30V			N	6	2	±20	1.60	19.50	24.00	28.50	40.00	380.0	7.2			
	-30V	NCE30NP1812Q	DFN3.3*3.3	P	-12	15	±20	-1.70	29.00	35.00	55.00	75.00	691.9	12.9	Production		
	30V			N	18	17	±20	1.60	19.00	24.00	26.00	37.00	547.0	15.0			
-30V	NCE30NP1812K	TO-252-4L	P	-12	20	±20	-1.70	43.00	46.00	67.00	75.00	464.7	12.6	Production			
30V			N	18	25	±20	1.60	22.00	26.00	30.00	37.00	519.9	14.7				
-30V	NCE30NP1812G	DFN5*6	P	-12	15	±20	-1.70	29.00	35.00	55.00	75.00	690.0	12.9	New			
30V			N	18	17	±20	1.60	19.00	24.00	26.00	37.00	547.0	15.0				
-30V	NCE30D2519K	TO-252-4L	P	-19	21	±20	-1.90	29.00	35.00	48.00	65.00	920.0	16.2	Production			
30V			N	25	30	±20	1.50	9.50	12.00	12.00	15.00	450.0	9.5				

## Integrated Trench MOSFET 产品列表

(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

	Voltage	Part Number	Package	N/P	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
					T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	(mR)	(mR)	(pF)	(nC)	
N+P	-30V	NCE30NP4030G	DFN5*6	P	-30	35	±20	-1.60	9.00	11.00	15.00	20.00	1632.0	45.6	Production
	30V			N	40	35	±20	1.50	7.00	9.50	11.00	23.00	1000.0	17.0	
	-40V	NCE609*	TO-252-4L	P	-14	40	±20	-1.50	29.00	35.00	35.00	45.00	1225.0	21.0	Production
	40V			N	21	40	±20	1.50	14.00	19.00	19.00	29.00	1500.0	24.0	
	-40V	NCE4614	SOP-8	P	-7	2	±20	-1.60	29.00	35.00	34.00	45.00	1139.0	22.5	Production
	40V			N	8	2	±20	1.50	12.90	19.00	19.00	29.00	1110.0	30.0	
	-40V	NCE4525*	SOP-8	P	-5	2	±20	-1.50	32.00	38.00	39.00	50.00	940.0	17.0	Production
	40V			N	7	2	±20	1.50	19.50	24.00	29.00	38.00	516.0	8.9	
	-40V	NCE40NP2815G	DFN5*6	P	-15	2	±20	-1.50	29.00	35.00	34.00	45.00	964.0	22.9	Production
	40V			N	28	2	±20	1.40	15.00	18.00	22.00	28.00	964.0	22.9	
	-60V	NCE603S	SOP-8	P	-6	2	±20	-2.60	64.00	80.00			1450.0	260.0	Production
	60V			N	5	2	±20	1.60	26.00	35.00	32.00	45.00	500.0	25.0	
	-60V	NCE4688	TO-252-4L	P	-6	2	±20	-2.60	64.00	80.00			1450.0	26.0	Production
	60V			N	6.3	2	±20	1.60	26.00	30.00	30.00	40.00	500.0	25.0	
	-60V	NCE60NP2012K	DFN5*6	P	-12	50	±20	-1.50	84.00	100.00	100.00	125.00	1630.7	37.6	Production
	60V			N	20	50	±20	1.60	24.00	35.00	30.00	40.00	900.0	25.0	
	-60V	NCE60NP2016G	TO-252-4L	P	-16	42	±20	-1.50	52.00	60.00	60.00	72.00	1108.0	23.4	New
	60V			N	20	42	±20	1.60	23.00	28.00	27.00	32.00	973.2	25.0	
-60V	NCE60NP4035K	SOP-8	P	-35	80	±20	-2.60	31.00	35.00			2220.0	40.5	New	
60V			N	40	80	±20	1.60	13.50	15.50	18.50	22.00	1620.0	38.5		
-100V	NCE01NP03S	SOP-8	P	-3	2	±20	-2.00	170.00	220.00	200.00	230.00	760.0	25.0	Production	
100V			N	3	2	±20	1.60	95.00	130.00	100.00	140.00	730.0	21.5		
Dual P	-20V	NCE20PD05 <sup>d</sup>	TSSOP-8	P	-5	1.6	±12	-0.70			24.80	30.00	1025.0	13.0	Production
		NCE4963 <sup>d</sup>	SOP-8	P	-7	3	±12	-0.70			21.00	27.00	1210.0	10.0	Production
	-30V	NCE4801 <sup>d</sup>	SOP-8	P	-5	2	±12	-1.00	40.00	48.00	45.00	57.00	880.0	8.5	Production
		NCE4953 <sup>d</sup>	SOP-8	P	-5.1	2.5	±20	-1.60	43.00	55.00	62.00	90.00	520.0	11.0	Production
		NCE4953A <sup>d</sup>	SOP-8	P	-5.3	2.6	±20	-1.60	37.00	49.00	60.00	85.00	540.0	12.0	Production
		NCE30PD08S <sup>d</sup>	SOP-8	P	-8	2.9	±20	-1.50	16.00	20.00	21.00	35.00	1600.0	30.0	Production
	-55V	NCE55P04S <sup>d</sup>	SOP-8	P	-4	3	±20	-2.60	66.00	75.00			1450.0	26.0	Production
-60V	NCE60PD05S	SOP-8	P	-5	3	±20	-2.60	40.00	50.00			2578.0	47.0	Production	
Dual N	12V	NCE1220SP <sup>*d</sup>	CSP	N	20	2.1	±10	0.90			3.60	4.60	2560.0	32.0	New
		NCE1227SP <sup>*d</sup>	CSP	N	27	3.5	±10	0.90			2.10	2.70	3870.0	43.0	New
		NCE1230SP <sup>*d</sup>	CSP	N	30	3.5	±10	0.90			1.00	1.30	4920.0	55.0	New
	18V	NCE18ND11U <sup>*d</sup>	DFN2*3	N	11	1.5	±12	0.70			6.20	7.10	1550.0	17.0	Production
	20V	NCE8205i <sup>d</sup>	TSSOP-8	N	5	1.25	±12	0.70			18.00	24.00	550.0	9.5	Production
		NCE8205t <sup>d</sup>	SOT-23-6L	N	5	1.25	±12	0.70			16.50	23.00	550.0	9.5	Production

## Integrated Trench MOSFET 产品列表

(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

	Voltage	Part Number	Package	N/P	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
					T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
Dual N	20V	NCE8205B <sup>d</sup>	TSSOP-8	N	6	1.5	±12	0.70			15.00	22.00	900.0	12.0	Production
		NCE9926 <sup>d</sup>	SOP-8	N	6	1.25	±12	0.75			20.00	28.00	640.0	10.0	Production
		NCE2007N <sup>d</sup>	SOT-23-6L	N	6	1.5	±12	0.70			14.50	22.00	900.0	12.0	Production
		NCE2007NS <sup>d</sup>	SOT-23-6L	N	6	1.5	±12	0.70			14.50	22.00	565.0	9.5	Production
		NCE2004NE* <sup>d</sup>	SOT-23-6L	N	6	1.25	±10	0.70			17.00	24.00	650.0	8.0	Production
		NCE2008E* <sup>d</sup>	TSSOP-8	N	6	1.5	±10	0.70			17.00	24.00	650.0	8.0	Production
		NCE20ND06 <sup>d</sup>	TSSOP-8	N	6	1.6	±12	0.70			17.00	22.00	620.0	10.0	Production
		NCE20ND07U* <sup>d</sup>	DFN2*3	N	7	1.5	±12	0.70			11.50	16.00	811.1	14.2	Production
		NCE2010E* <sup>d</sup>	TSSOP-8	N	7	1.5	±10	0.70			13.00	18.00	1150.0	15.0	Production
		NCE2006NE* <sup>d</sup>	SOT-23-6L	N	7	1.5	±10	0.70			15.00	21.00	1150.0	15.0	Production
		NCE2008N <sup>d</sup>	SOT-23-6L	N	7.6	1.35	±12	0.65			13.50	20.00	653.0	11.5	Production
		NCE8804* <sup>d</sup>	TSSOP-8	N	8	2	±10	0.70			11.00	15.00	1800.0	17.9	Production
		NCE8651Q* <sup>d</sup>	DFN3.3*3.3	N	11	1.5	±12	0.70			7.20	11.00	1255.0	29.0	Production
		NCE4618SP* <sup>d</sup>	CSP	N	6	1.6	±12	0.83			13.60	16.00	2750.0	25.4	Production
	24V	NCE4612SP* <sup>d</sup>	CSP	N	6	1.6	±12	0.75			27.90	34.00	873.5	10.0	Production
30V	NCE6802 <sup>d</sup>	SOT-23-6L	N	3.5	1.2	±20	1.50	36.00	45.00	59.00	70.00	170.0	4.0	Production	
	NCE30ND07BS <sup>d</sup>	SOP-8	N	6.5	2	±20	0.90	25.00	29.00	27.00	34.00	595.0	9.3	Production	
	NCE30ND07AS <sup>d</sup>	SOP-8	N	7	2	±20	0.90	21.00	24.00	22.00	28.00	657.1	9.4	Production	
	NCE30ND07S <sup>d</sup>	SOP-8	N	7	2	±20	1.60	18.00	23.00	25.00	40.00	380.0	7.2	Production	
	NCE8601B* <sup>d</sup>	TSSOP-8	N	8	2	±10	0.70	15.00	21.00	18.00	26.00	870.0	15.0	Production	
	NCE30D0808J <sup>d</sup>	DFN2*2	N	8	2	±20	1.50	22.00	25.00	28.00	34.00	558.0	12.0	Production	
	NCE30ND09S <sup>d</sup>	SOP-8	N	9	2	±20	1.60	9.00	12.00	13.00	16.00	1210.0	17.5	Production	
	NCE30ND35Q <sup>d</sup>	DFN3.3*3.3	N	30	30	±20	1.40	9.00	12.00	11.50	15.00	1000.0	17.0	Production	
40V	NCE40ND0812S <sup>d</sup>	SOP-8	N	8	2	±20	1.40	15.80	18.00	22.00	28.00	964.0	22.9	Production	
		SOP-8	N	12	2.5	±20	1.60	11.70	14.00	15.60	20.00	1780.0	38.2	Production	
60V	NCE60ND03N	SOT23-6L	N	3	1.7	±20	1.30	73.00	84.00	82.00	98.40	510.0	14.6	New	
	NCE60ND03S	SOP-8	N	3	1.7	±20	1.30	68.00	78.00	80.00	96.00	510.0	14.6	New	
	NCE6005AS	SOP-8	N	5	2	±20	1.60	26.00	30.00	32.00	38.00	979.0	22.0	Production	
	NCE60ND08S	SOP-8	N	8	2.1	±20	1.60	15.60	20.00	20.00	28.00	1600.0	38.5	New	
	NCE60ND09AS	SOP-8	N	9	2.6	±20	1.80	10.00	15.00	14.00	18.00	2180.0	58.0	Production	
	NCE60ND18G	SOP-8	N	18	45	±20	1.60	24.00	35.00	30.00	40.00	973.0	25.0	Production	
	NCE60ND20AK	TO-252-4L	N	20	45	±20	1.60	24.00	35.00	30.00	40.00	973.0	25.0	Production	
	NCE60ND45AG	DFN5*6	N	45	60	±20	1.90	9.40	11.00	13.40	16.00	2750.0	60.0	New	
	NCE60ND45XG	DFN5*6	N	45	60	±20	3.00	9.40	11.00			1970.0	60.0	New	
100V	NCE01ND03S <sup>d</sup>	SOP-8	N	3	2	±20	1.50	95.00	130.00	100.00	140.00	730.0	21.5	Production	

## Integrated Trench MOSFET 产品列表

(产品名后带“\*”表示为带 ESD 的产品,带“d”表示为双芯封装的产品)

	Voltage	Part Number	Package	N/P	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub>	R <sub>on10</sub>	R <sub>on10</sub>	R <sub>on4.5</sub>	R <sub>on4.5</sub>	C <sub>iss</sub>	Q <sub>g</sub>	Part Status
					T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	-Typ	-Typ	-Max	-Typ	-Max	-Typ	
Dual N	30V	NCEB301Q	DFN3*3	N	15	18	±20	1.50	9.80	11.50	15.30	19.00	690.0	15.0	Production
		NCEB301Q		N	20	20	±20	1.50	8.30	9.60	13.00	16.00	1210.0	17.5	Production
		NCEB301G	DFN5*6	N	20	20	±20	1.50	6.90	8.50	10.80	14.00	1210.0	17.5	Production
		NCEB301G		N	35	40	±20	1.60	5.10	7.00	8.30	12.00	2330.0	45.0	Production

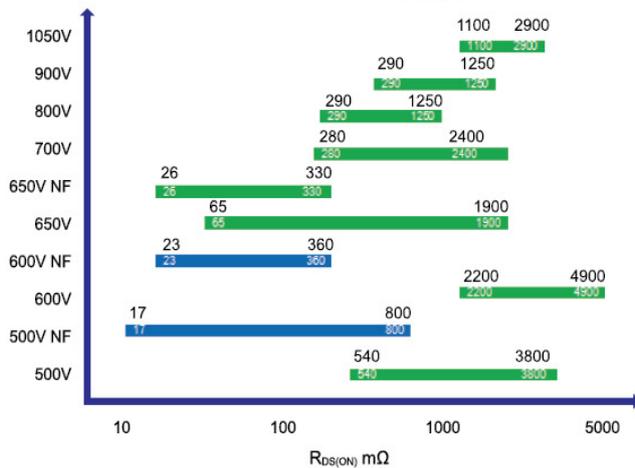
## 超结功率器件 (Super-Junction MOSFET)

新洁能在原有超结 MOSFET 技术的基础上，通过进一步技术升级，推出全新的第四代超结 MOSFET (Super Junction MOSFET IV) 产品。该系列产品通过提升器件的结构密度，进一步降低特征导通电阻，提升器件的功率密度，在相同体积下可以大幅提升器件电流能力。同时，器件加入了开关特性优化设计，可以为系统 EMC 设计提供更大的余量。此外，该系列产品优化了器件的抗静电能力，提升了系统应用的可靠性。

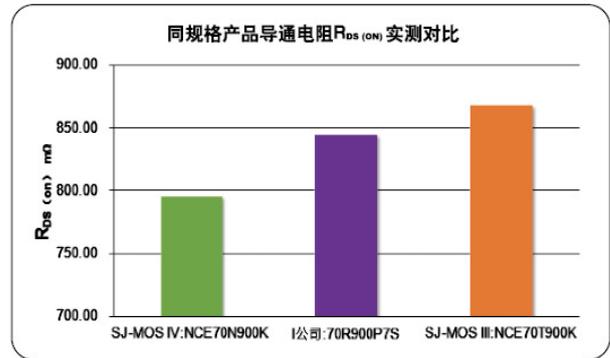
第四代超结 MOSFET (Super Junction MOSFET IV) 产品还开发了具有快速恢复体二极管特性的 F 系列产品，该系列产品通过优化体二极管特性，减小反向恢复电荷和反向恢复时间，提升了体二极管反向恢复速度。在 LLC 等桥式电路中具有损耗低、可靠性高的性能优势。

Super Junction MOSFET IV 产品包括 200V、300V、500V、600V、650V、700V、800V、900V、1050V 等多个电压规格，同时可以提供包括 SOT-223-2L、TO-251、TO-263、TO-252、TO-220、TO-220F、DFN8\*8、TO-247 在内的多款封装外形。

Super Junction MOSFET IV 产品分布

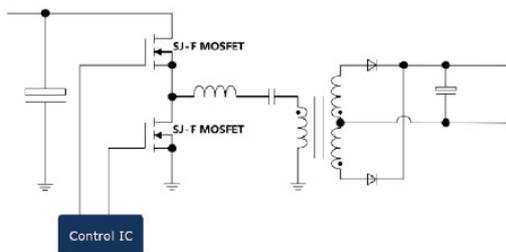


同规格产品导通电阻 R<sub>DS(on)</sub> 实测对比

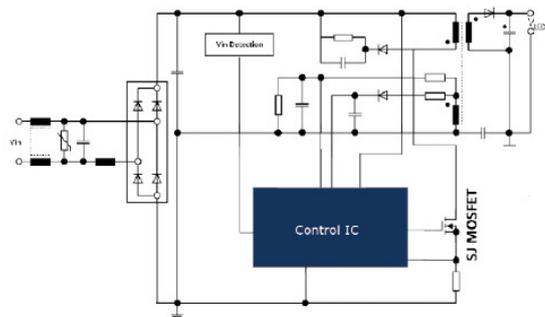


### 典型应用电路

#### LCC 谐振应用



#### FLY BACK 应用



**第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4)**
**V<sub>DS</sub>: 500V-1050V 产品列表(SJ-MOS IV)**

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25℃	T <sub>J</sub> =25℃	(V)	(V)	(mR)	(mR)	
500V	NCE50N4K9K	TO-252	1	15	20	3.50	4500.00	4900.00	Coming Soon
	NCE50N3K8K	TO-252	1.1	15	20	3.50	3500.00	3800.00	Coming Soon
	NCE50N2K2K	TO-252	1.4	18	20	3.50	2000.00	2250.00	Production
	NCE50N2K2I	TO-251	1.4	18	20	3.50	2000.00	2250.00	Production
	NCE50N1K8K	TO-252	1.9	19	20	3.50	1600.00	1800.00	Production
	NCE50N1K8I	TO-251	1.9	19	20	3.50	1600.00	1800.00	Production
	NCE50N1K2K	TO-252	3	31	20	3.50	1050.00	1200.00	Coming Soon
	NCE50N1K2I	TO-251	3	31	20	3.50	1050.00	1200.00	Coming Soon
	NCE50N760K	TO-252	4.5	41	20	3.50	640.00	760.00	Production
	NCE50N760I	TO-251	4.5	41	20	3.50	640.00	760.00	Production
	NCE50N760F	TO-220F	4.5	26	20	3.50	640.00	760.00	Production
	NCE50N480K	TO-252	7.5	74	20	3.50	420.00	480.00	Production
	NCE50N480I	TO-251	7.5	74	20	3.50	420.00	480.00	Production
	NCE50N480F	TO-220F	7.5	30.9	20	3.50	420.00	480.00	Production
650V	NCE65N1K9K	TO-252	2.5	32	20	3.50	1650.00	1900.00	Coming Soon
	NCE65N1K9I	TO-251	2.5	32	20	3.50	1650.00	1900.00	Coming Soon
	NCE65N1K2K	TO-252	3.8	46	20	3.50	1050.00	1200.00	Production
	NCE65N1K2I	TO-251	3.8	46	20	3.50	1050.00	1200.00	Production
	NCE65N1K2F	TO-220F	3.8	29.6	20	3.50	1050.00	1200.00	Production
	NCE65N760K	TO-252	6	73	20	3.50	680.00	760.00	Production
	NCE65N760I	TO-251	6	73	20	3.50	680.00	760.00	Production
	NCE65N760F	TO-220F	6	30.8	20	3.50	680.00	760.00	Production
	NCE65N520K	TO-252	8	93	20	3.50	460.00	520.00	Coming Soon
	NCE65N520I	TO-251	8	93	20	3.50	460.00	520.00	Coming Soon
	NCE65N520R	SOT-223-2L	8	5.8	20	3.50	460.00	520.00	Coming Soon
	NCE65N520F	TO-220F	8	31.6	20	3.50	460.00	520.00	Coming Soon
	NCE65N330K	TO-252	11	107	20	3.50	300.00	330.00	Coming Soon
	NCE65N330I	TO-251	11	107	20	3.50	300.00	330.00	Coming Soon
	NCE65N330D	TO-263	11	107	20	3.50	300.00	330.00	Coming Soon
	NCE65N330F	TO-220F	11	32.6	20	3.50	300.00	330.00	Coming Soon
	NCE65N240K	TO-252	14	124	20	3.50	210.00	240.00	Coming Soon
	NCE65N240I	TO-251	14	124	20	3.50	210.00	240.00	Coming Soon
NCE65N240D	TO-263	14	124	20	3.50	210.00	240.00	Coming Soon	
NCE65N240F	TO-220F	14	33.1	20	3.50	210.00	240.00	Coming Soon	

## 第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4)

### V<sub>DS</sub>: 500V-1050V 产品列表(SJ-MOS IV)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>T</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
650V	NCE65N180T	TO-247	20	194	20	3.50	160.00	180.00	Production
	NCE65N180K	TO-252	20	194	20	3.50	160.00	180.00	Production
	NCE65N180D	TO-263	20	194	20	3.50	160.00	180.00	Production
	NCE65N180	TO-220	20	194	20	3.50	160.00	180.00	Production
	NCE65N180F	TO-220F	20	33.9	20	3.50	160.00	180.00	Production
	NCE65N120	TO-220	27	237	20	3.50	105.00	120.00	Coming Soon
	NCE65N120D	TO-263	27	237	20	3.50	105.00	120.00	Coming Soon
	NCE65N120F	TO-220F	27	34.5	20	3.50	105.00	120.00	Coming Soon
	NCE65N120T	TO-247	27	237	20	3.50	105.00	120.00	Coming Soon
700V	NCE70N2K4K	TO-252	2	32	20	3.50	2200.00	2400.00	Coming Soon
	NCE70N2K4I	TO-251	2	32	20	3.50	2200.00	2400.00	Coming Soon
	NCE70N1K4K	TO-252	3.5	46	20	3.50	1200.00	1400.00	Production
	NCE70N1K4I	TO-251	3.5	46	20	3.50	1200.00	1400.00	Production
	NCE70N1K4R	SOT-223-2L	3.5	4.8	20	3.50	1200.00	1400.00	Production
	NCE70N1K4F	TO-220F	3.5	29.6	20	3.50	1200.00	1400.00	Production
	NCE70N900K	TO-252	5	73	20	3.50	820.00	900.00	Production
	NCE70N900I	TO-251	5	73	20	3.50	820.00	900.00	Production
	NCE70N900R	SOT-223-2L	5	5.3	20	3.50	820.00	900.00	Production
	NCE70N900F	TO-220F	5	30.8	20	3.50	820.00	900.00	Production
	NCE70N600K	TO-252	7	93	20	3.50	540.00	600.00	Coming Soon
	NCE70N600I	TO-251	7	93	20	3.50	540.00	600.00	Coming Soon
	NCE70N600R	SOT-223-2L	7	5.8	20	3.50	540.00	600.00	Coming Soon
	NCE70N600F	TO-220F	7	31.6	20	3.50	540.00	600.00	Coming Soon
	NCE70N380K	TO-252	10.5	107	20	3.50	330.00	380.00	Coming Soon
	NCE70N380D	TO-263	10.5	107	20	3.50	330.00	380.00	Coming Soon
	NCE70N380I	TO-251	10.5	107	20	3.50	330.00	380.00	Coming Soon
	NCE70N380F	TO-220F	10.5	32.6	20	3.50	330.00	380.00	Coming Soon
	NCE70N290K	TO-252	13	124	20	3.50	260.00	290.00	Coming Soon
	NCE70N290D	TO-263	13	124	20	3.50	260.00	290.00	Coming Soon
NCE70N290F	TO-220F	13	33.1	20	3.50	260.00	290.00	Coming Soon	

**第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4)**
**V<sub>DS</sub>: 500V-1050V 产品列表(SJ-MOS IV)**

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>j</sub> =25°C	T <sub>j</sub> =25°C	(V)	(V)	(mR)	(mR)	
800V	NCE80N1K2I	TO-251	5	67	20	3.50	1050.00	1250.00	Coming Soon
	NCE80N1K2K	TO-252	5	67	20	3.50	1050.00	1250.00	Coming Soon
	NCE80N1K2R	SOT-223-2L	5	5.5	20	3.50	1050.00	1250.00	Coming Soon
	NCE80N1K2	TO-220	5	67	20	3.50	1050.00	1250.00	Coming Soon
	NCE80N1K2F	TO-220F	5	31.4	20	3.50	1050.00	1250.00	Coming Soon
	NCE80N900I	TO-251	6	70	20	3.50	840.00	900.00	Coming Soon
	NCE80N900K	TO-252	6	70	20	3.50	840.00	900.00	Coming Soon
	NCE80N900	TO-220	6	70	20	3.50	840.00	900.00	Coming Soon
	NCE80N900F	TO-220F	6	31.7	20	3.50	840.00	900.00	Coming Soon
	NCE80N540I	TO-251	9	88	20	3.50	480.00	540.00	Coming Soon
	NCE80N540K	TO-252	9	88	20	3.50	480.00	540.00	Coming Soon
	NCE80N540	TO-220	9	88	20	3.50	480.00	540.00	Coming Soon
	NCE80N540F	TO-220F	9	32.3	20	3.50	480.00	540.00	Coming Soon
	NCE80N290F	TO-220F	17	33.5	20	3.50	240.00	290.00	Coming Soon
	NCE80N290D	TO-263	17	181	20	3.50	240.00	290.00	Coming Soon
	NCE80N290	TO-220	17	181	20	3.50	240.00	290.00	Coming Soon
900V	NCE90N1K4K	TO-252	4.5	67	20	3.50	1300.00	1450.00	Coming Soon
	NCE90N1K4I	TO-251	4.5	67	20	3.50	1300.00	1450.00	Coming Soon
	NCE90N1K4R	SOT-223-2L	4.5	5.5	20	3.50	1300.00	1450.00	Coming Soon
	NCE90N1K1I	TO-251	5	70	20	3.50	950.00	1100.00	Coming Soon
	NCE90N1K1K	TO-252	5	70	20	3.50	950.00	1100.00	Coming Soon
	NCE90N1K1	TO-220	5	70	20	3.50	950.00	1100.00	Coming Soon
	NCE90N1K1F	TO-220F	5	31.7	20	3.50	950.00	1100.00	Coming Soon
	NCE90N600I	TO-251	8.5	88	20	3.50	520.00	600.00	Coming Soon
	NCE90N600	TO-252	8.5	88	20	3.50	520.00	600.00	Coming Soon
	NCE90N600	TO-220	8.5	88	20	3.50	520.00	600.00	Coming Soon
	NCE90N600F	TO-220F	8.5	32.3	20	3.50	520.00	600.00	Coming Soon
1050V	NCE105N2K9F	TO-220F	3.5	31.3	20	3.50	2200.00	2900.00	Coming Soon
	NCE105N1K8F	TO-220F	4.5	31.7	20	3.50	1400.00	1800.00	Coming Soon
	NCE105N1K1F	TO-220F	6.5	32.3	20	3.50	900.00	1100.00	Coming Soon

## 第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4)

### V<sub>ds</sub>: 200V-650V 产品列表(SJ-MOS IV NF 系列)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>j</sub> =25°C	T <sub>j</sub> =25°C	(V)	(V)	(mR)	(mR)	
200V	NCE20VF010	TO-220	110	330	20	3.50	6.50	10.00	Production
	NCE20VF010T	TO-247	110	330	20	3.50	6.50	10.00	Production
	NCE20VF010D	TO-263	110	330	20	3.50	6.50	10.00	Production
300V	NCE30VF028	TO-220	70	517	20	3.50	21.00	28.00	Production
	NCE30VF028T	TO-247	70	517	20	3.50	21.00	28.00	Production
	NCE30VF028D	TO-263	70	517	20	3.50	21.00	28.00	Production
	NCE30VF028P	TO-3P	70	517	20	3.50	21.00	28.00	Production
500V	NCE50NF800K	TO-252	4.6	47	20	4.00	720.00	800.00	Production
	NCE50NF800I	TO-251	4.6	47	20	4.00	720.00	800.00	Production
	NCE50NF800F	TO-220F	4.6	29.7	20	4.00	720.00	800.00	Production
	NCE50NF520K	TO-252	7.2	73	20	4.00	460.00	520.00	Coming Soon
	NCE50NF520I	TO-251	7.2	73	20	4.00	460.00	520.00	Coming Soon
	NCE50NF330K	TO-252	10	93	20	4.00	280.00	330.00	Coming Soon
	NCE50NF330I	TO-251	10	93	20	4.00	280.00	330.00	Coming Soon
	NCE50NF330F	TO-220F	10	31.6	20	4.00	280.00	330.00	Coming Soon
	NCE50NF220K	TO-252	13.5	109	20	4.00	180.00	220.00	Coming Soon
	NCE50NF220D	TO-263	13.5	109	20	4.00	180.00	220.00	Coming Soon
	NCE50NF220F	TO-220F	13.5	32.7	20	4.00	180.00	220.00	Coming Soon
	NCE50NF160K	TO-252	17	124	20	4.00	130.00	160.00	Coming Soon
	NCE50NF160D	TO-263	17	124	20	4.00	130.00	160.00	Coming Soon
	NCE50NF160	TO-220	17	124	20	4.00	130.00	160.00	Coming Soon
	NCE50NF160F	TO-220F	17	33.1	20	4.00	130.00	160.00	Coming Soon
	NCE50NF120	TO-220	24.5	194	20	4.00	105.00	120.00	Production
	NCE50NF120D	TO-263	24.5	194	20	4.00	105.00	120.00	Production
	NCE50NF120F	TO-220F	24.5	33.9	20	4.00	105.00	120.00	Production
NCE50NF120T	TO-247	24.5	194	20	4.00	105.00	120.00	Production	
600V	NCE60NF450K	TO-252	8.7	93	20	3.50	390.00	450.00	Coming Soon
	NCE60NF450D	TO-263	8.7	93	20	3.50	390.00	450.00	Coming Soon
	NCE60NF450I	TO-251	8.7	93	20	3.50	390.00	450.00	Coming Soon
	NCE60NF450F	TO-220F	8.7	31.6	20	3.50	390.00	450.00	Coming Soon
	NCE60NF290K	TO-252	11.7	109	20	4.00	250.00	290.00	Coming Soon
	NCE60NF290	TO-220	11.7	109	20	4.00	250.00	290.00	Coming Soon
	NCE60NF290D	TO-263	11.7	109	20	4.00	250.00	290.00	Coming Soon
	NCE60NF290F	TO-220F	11.7	32.7	20	4.00	250.00	290.00	Coming Soon
	NCE60NF210K	TO-252	14.8	124	20	4.00	205.00	210.00	Coming Soon
	NCE60NF210D	TO-263	14.8	124	20	4.00	205.00	210.00	Coming Soon
	NCE60NF210	TO-220	14.8	124	20	4.00	205.00	210.00	Coming Soon
	NCE60NF210F	TO-220F	14.8	33.1	20	4.00	205.00	210.00	Coming Soon

## 第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4) NF 系列

 V<sub>DS</sub>: 200V-650V 产品列表(SJ-MOS IV NF 系列)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
600V	NCE60NF160T	TO-247	21	194	20	4.00	145.00	160.00	Production
	NCE60NF160K	TO-252	21	194	20	4.00	145.00	160.00	Production
	NCE60NF160D	TO-263	21	194	20	4.00	145.00	160.00	Production
	NCE60NF160	TO-220	21	194	20	4.00	145.00	160.00	Production
	NCE60NF160F	TO-220F	21	33.9	20	4.00	145.00	160.00	Production
	NCE60NF099	TO-220	29	237	20	4.00	89.00	99.00	Coming Soon
	NCE60NF099D	TO-263	29	237	20	4.00	89.00	99.00	Coming Soon
	NCE60NF099F	TO-220F	29	34.5	20	4.00	89.00	99.00	Coming Soon
	NCE60NF099T	TO-247	29	237	20	4.00	89.00	99.00	Coming Soon
	NCE60NF080	TO-220	34	346	20	4.00	70.00	80.00	Production
	NCE60NF080D	TO-263	34	346	20	4.00	70.00	80.00	Production
	NCE60NF080F	TO-220F	34	35	20	4.00	70.00	80.00	Production
	NCE60NF080T	TO-247	34	346	20	4.00	70.00	80.00	Production
	NCE60NF055T	TO-247	40	371	20	4.00	50.00	55.00	Production
	NCE60NF040T	TO-247	61	411	20	4.00	35.00	40.00	Production
	NCE60NF031T	TO-247	73	490	20	4.00	26.00	31.00	Production
NCE60NF017T	TO-247	107	532	20	4.00	14.00	17.00	Production	
650V	NCE65NF340K	TO-252	11	107	20	4.00	310.00	340.00	Coming Soon
	NCE65NF340	TO-220	11	107	20	4.00	310.00	340.00	Coming Soon
	NCE65NF340D	TO-263	11	107	20	4.00	310.00	340.00	Coming Soon
	NCE65NF340F	TO-220F	11	33	20	4.00	310.00	340.00	Coming Soon
	NCE65NF250K	TO-252	14	124	20	4.00	215.00	250.00	Coming Soon
	NCE65NF250D	TO-263	14	124	20	4.00	215.00	250.00	Coming Soon
	NCE65NF250	TO-220	14	124	20	4.00	215.00	250.00	Coming Soon
	NCE65NF250F	TO-220F	14	33.1	20	4.00	215.00	250.00	Coming Soon
	NCE65NF190K	TO-252	18	194	20	4.00	165.00	190.00	Production
	NCE65NF190V	DFN8*8	18	194	20	4.00	165.00	190.00	Production
	NCE65NF190	TO-220	18	194	20	4.00	165.00	190.00	Production
	NCE65NF190D	TO-263	18	194	20	4.00	165.00	190.00	Production
	NCE65NF190F	TO-220F	18	33.9	20	4.00	165.00	190.00	Production
	NCE65NF190T	TO-247	18	205	20	4.00	165.00	190.00	Production
	NCE65NF130	TO-220	26	237	20	4.00	110.00	130.00	Coming Soon
	NCE65NF130D	TO-263	26	237	20	4.00	110.00	130.00	Coming Soon
NCE65NF130F	TO-220F	26	34.5	20	4.00	110.00	130.00	Coming Soon	
NCE65NF130T	TO-247	26	237	20	4.00	110.00	130.00	Coming Soon	
NCE65NF099	TO-220	36	346	20	4.00	90.00	99.00	Production	

## 第四代超结功率 MOSFET (Super-Junction MOSFET Gen.4) NF 系列

V<sub>DS</sub>: 200V-650V 产品列表(SJ-MOS IV NF 系列)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
650V	NCE65NF099D	TO-263	36	346	20	4.00	90.00	99.00	Production
	NCE65NF099F	TO-220F	36	35	20	4.00	90.00	99.00	Production
	NCE65NF099T	TO-247	36	346	20	4.00	90.00	99.00	Production
	NCE65NF068T	TO-247	45	371	20	4.00	60.00	68.00	Production
	NCE65NF048T	TO-247	56	410	20	4.00	39.00	48.00	Production
	NCE65NF036T	TO-247	70	488	20	4.00	30.00	36.00	Production
	NCE65NF021T	TO-247	96	530	20	4.00	17.00	21.00	Production

### 第三代超结功率 MOSFET (Super-Junction MOSFET Gen.3)

#### V<sub>DS</sub>: 600V-800V 产品列表(SJ-MOS III)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>ES</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
600V	NCE60T2K2I	TO-251	2	21	30	3.50	1800.00	2200.00	Production
	NCE60T2K2K	TO-252	2	21	30	3.50	1800.00	2200.00	Production
	NCE60T1K6I	TO-251	3	22	30	3.50	1400.00	1600.00	Production
	NCE60T1K6K	TO-252	3	22	30	3.50	1400.00	1600.00	Production
650V	NCE65T2K4I	TO-251	2	21	30	3.50	2200.00	2400.00	Production
	NCE65T2K4K	TO-252	2	21	30	3.50	2200.00	2400.00	Production
	NCE65T1K9I	TO-251	3	22	30	3.50	1600.00	1900.00	Production
	NCE65T1K9K	TO-252	3	22	30	3.50	1600.00	1900.00	Production
	NCE65T1K2I	TO-251	4	41	30	3.50	950.00	1100.00	Production
	NCE65T1K2F	TO-220F	4	28.4	30	3.50	950.00	1100.00	Production
	NCE65T1K2K	TO-252	4	41	30	3.50	950.00	1100.00	Production
	NCE65T900I	TO-251	5	46	30	3.50	750.00	900.00	Production
	NCE65T900F	TO-220F	5	29.8	30	3.50	750.00	900.00	Production
	NCE65T900K	TO-252	5	46	30	3.50	750.00	900.00	Production
	NCE65T900	TO-220	5	46	30	3.50	750.00	900.00	Production
	NCE65T680K	TO-252	7	60	30	3.50	600.00	680.00	Production
	NCE65T680I	TO-251	7	60	30	3.50	600.00	680.00	Production
	NCE65T680D	TO-263	7	60	30	3.50	600.00	680.00	Production
	NCE65T680	TO-220	7	60	30	3.50	600.00	680.00	Production
	NCE65T680F	TO-220F	7	31.4	30	3.50	600.00	680.00	Production
	NCE65T540K	TO-252	8	69	30	3.50	460.00	540.00	Production
	NCE65T540I	TO-251	8	69	30	3.50	460.00	540.00	Production
	NCE65T540D	TO-263	8	69	30	3.50	460.00	540.00	Production
	NCE65T540	TO-220	8	69	30	3.50	460.00	540.00	Production
	NCE65T540F	TO-220F	8	31.6	30	3.50	460.00	540.00	Production
	NCE65T360K	TO-252	11.5	101	30	3.50	290.00	360.00	Production
	NCE65T360I	TO-251	11.5	101	30	3.50	290.00	360.00	Production
	NCE65T360	TO-220	11.5	101	30	3.50	290.00	360.00	Production
	NCE65T360F	TO-220F	11.5	32.6	30	3.50	290.00	360.00	Production
	NCE65T360D	TO-263	11.5	101	30	3.50	290.00	360.00	Production
	NCE65T260	TO-220	15	131	30	3.50	220.00	260.00	Production
	NCE65T260F	TO-220F	15	33.2	30	3.50	220.00	260.00	Production
NCE65T260D	TO-263	15	131	30	3.50	220.00	260.00	Production	
NCE65T260T	TO-247	15	131	30	3.50	220.00	260.00	Production	

### 第三代超结功率 MOSFET (Super-Junction MOSFET Gen.3)

#### V<sub>DS</sub>: 700V-800V 产品列表(SJ-MOS III)

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
650V	NCE65T180D	TO-263	21	188	30	3.50	150.00	180.00	Production
	NCE65T180	TO-220	21	188	30	3.50	150.00	180.00	Production
	NCE65T180T	TO-247	21	188	30	3.50	150.00	180.00	Production
	NCE65T180F	TO-220F	21	33.8	30	3.50	150.00	180.00	Production
	NCE65T180V	TO-220	21	188	30	3.50	170.00	199.00	Production
	NCE65T130T	TO-247	28	260	30	3.50	110.00	130.00	Production
	NCE65T130	TO-220	28	260	30	3.50	110.00	130.00	Production
	NCE65T130F	TO-220F	28	35	30	3.50	110.00	130.00	Production
700V	NCE70T2K2I	TO-251	2	22	30	3.50	2200.00	2500.00	Production
	NCE70T2K2K	TO-252	2	22	30	3.50	2200.00	2500.00	Production
	NCE70T1K2I	TO-251	4	41	30	3.50	1100.00	1300.00	Production
	NCE70T1K2K	TO-252	4	41	30	3.50	1100.00	1300.00	Production
	NCE70T1K2F	TO-220F	4	28.4	30	3.50	1100.00	1300.00	Production
	NCE70T1K2R	SOT-223-2L	4	5.2	30	3.50	1100.00	1300.00	Production
	NCE70T900K	TO-252	5	46	30	3.50	820.00	950.00	Production
	NCE70T900I	TO-251	5	46	30	3.50	820.00	950.00	Production
	NCE70T900F	TO-220F	5	29.8	30	3.50	820.00	950.00	Production
	NCE70T900	TO-220	5	46	30	3.50	820.00	950.00	Production
	NCE70T900R	SOT-223-2L	5	5.5	30	3.50	820.00	950.00	Production
	NCE70T680K	TO-252	7	60	30	3.50	680.00	780.00	Production
	NCE70T680I	TO-251	7	60	30	3.50	680.00	780.00	Production
	NCE70T680D	TO-263	7	60	30	3.50	680.00	780.00	Production
	NCE70T680	TO-220	7	60	30	3.50	680.00	780.00	Production
	NCE70T680F	TO-220F	7	31.4	30	3.50	680.00	780.00	Production
	NCE70T540	TO-220	8	69	30	3.50	540.00	600.00	Production
	NCE70T540F	TO-220F	8	31.6	30	3.50	540.00	600.00	Production
	NCE70T540I	TO-251	8	69	30	3.50	540.00	600.00	Production
	NCE70T540D	TO-263	8	69	30	3.50	540.00	600.00	Production
	NCE70T540K	TO-252	8	69	30	3.50	540.00	600.00	Production
	NCE70T360	TO-220	11.5	101	30	3.50	330.00	390.00	Production
	NCE70T360F	TO-220F	11.5	32.6	30	3.50	330.00	390.00	Production
	NCE70T360D	TO-263	11.5	101	30	3.50	330.00	390.00	Production

**第三代超结功率 MOSFET (Super-Junction MOSFET Gen.3)**
**V<sub>DS</sub>: 700V-800V 产品列表(SJ-MOS III)**

Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
700V	NCE70T360K	TO-252	11.5	101	30	3.50	330.00	390.00	Production
	NCE70T360I	TO-251	11.5	101	30	3.50	330.00	390.00	Production
	NCE70T260	TO-220	15	131	30	3.50	260.00	290.00	Production
	NCE70T260F	TO-220F	15	33.2	30	3.50	260.00	290.00	Production
	NCE70T260I	TO-251	15	131	30	3.50	260.00	290.00	Production
	NCE70T260K	TO-252	15	131	30	3.50	260.00	290.00	Production
	NCE70T260D	TO-263	15	131	30	3.50	260.00	290.00	Production
	NCE70T260T	TO-247	15	131	30	3.50	260.00	290.00	Production
	NCE70T180F	TO-220F	21	33.8	30	3.50	150.00	180.00	Production
800V	NCE80T560F	TO-220F	9	33.2	30	3.50	480.00	560.00	Production
	NCE80T560I	TO-251	9	131	30	3.50	480.00	560.00	Production
	NCE80T560D	TO-263	9	131	30	3.50	480.00	560.00	Production
	NCE80T560	TO-220	9	131	30	3.50	480.00	560.00	Production
	NCE80T420F	TO-220F	11	33.8	30	3.50	350.00	420.00	Production
	NCE80T420	TO-220	11	188	30	3.50	350.00	420.00	Production
	NCE80T420D	TO-263	11	188	30	3.50	350.00	420.00	Production
	NCE80T320F	TO-220F	17	35	30	3.50	260.00	320.00	Production
	NCE80T320	TO-220	17	265	30	3.50	260.00	320.00	Production
	NCE80T320D	TO-263	17	265	30	3.50	260.00	320.00	Production
NCE80T320T	TO-247	17	265	30	3.50	260.00	320.00	Production	

## 第三代超结功率 MOSFET (Super-Junction MOSFET Gen.3) TF 系列

V<sub>DS</sub>: 650V 产品列表(SJ-MOS III TF 系列)

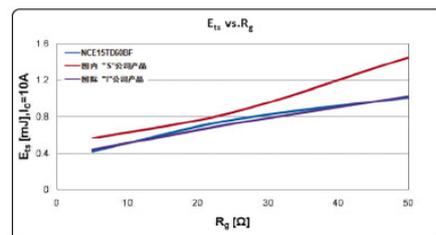
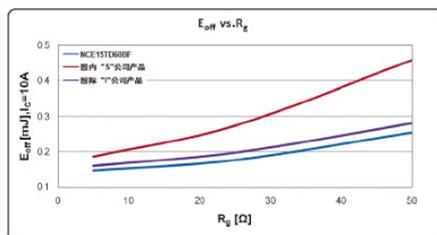
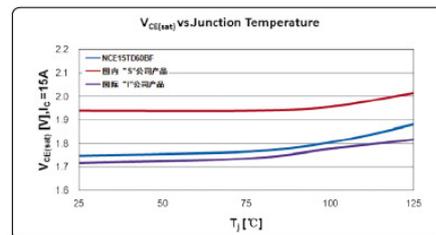
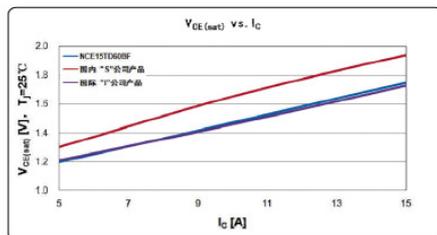
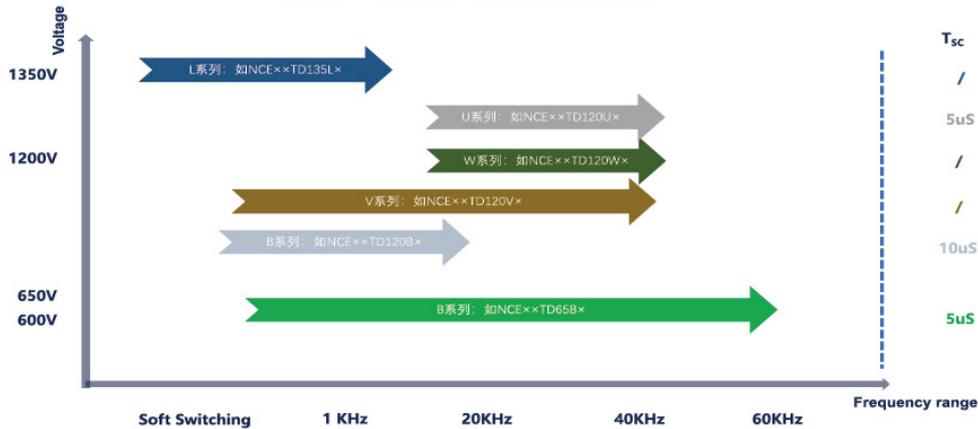
Voltage	Part Number	Package	I <sub>D</sub> (A)	P <sub>D</sub> (W)	V <sub>GS</sub>	V <sub>TH</sub> -Typ	R <sub>on10</sub> -Typ	R <sub>on10</sub> -Max	Part Status
			T <sub>J</sub> =25°C	T <sub>J</sub> =25°C	(V)	(V)	(mR)	(mR)	
650V	NCE65TF360K	TO-252	11.5	101	30	3.50	290.00	360.00	Production
	NCE65TF360	TO-220	11.5	101	30	3.50	290.00	360.00	Production
	NCE65TF360F	TO-220F	11.5	32.6	30	3.50	290.00	360.00	Production
	NCE65TF360D	TO-263	11.5	101	30	3.50	290.00	360.00	Production
	NCE65TF260	TO-220	15	131	30	3.50	220.00	260.00	Production
	NCE65TF260F	TO-220F	15	33.2	30	3.50	220.00	260.00	Production
	NCE65TF260D	TO-263	15	131	30	3.50	220.00	260.00	Production
	NCE65TF260T	TO-247	15	131	30	3.50	220.00	260.00	Production
	NCE65TF180D	TO-263	21	188	30	3.50	150.00	180.00	Production
	NCE65TF180	TO-220	21	188	30	3.50	150.00	180.00	Production
	NCE65TF180T	TO-247	21	188	30	3.50	150.00	180.00	Production
	NCE65TF180F	TO-220F	21	33.8	30	3.50	150.00	180.00	Production
	NCE65TF130T	TO-247	28	260	30	3.50	110.00	130.00	Production
	NCE65TF130	TO-220	28	260	30	3.50	110.00	130.00	Production
	NCE65TF130D	TO-263	28	260	30	3.50	110.00	130.00	Production
	NCE65TF130V	DFN8*8	28	260	30	3.50	110.00	130.00	Production
	NCE65TF130F	TO-220F	28	34.5	30	3.50	110.00	130.00	Production
	NCE65TF099T	TO-247	38	322	30	3.50	89.00	99.00	Production
	NCE65TF099D	TO-263	38	322	30	3.50	89.00	99.00	Production
	NCE65TF099	TO-220	38	322	30	3.50	89.00	99.00	Production
NCE65TF099F	TO-220F	38	35	30	3.50	89.00	99.00	Production	
NCE65TF099LL	TOLL	38	322	30	3.50	89.00	99.00	Production	
NCE65TF078T	TO-247	45	400	30	3.50	58.00	78.00	Production	
NCE65TF041T	TO-247	75	510	30	3.50	36.00	41.00	Production	

## 绝缘栅双极型晶体管 (IGBT)

新洁能利用沟槽栅场截止型 IGBT 技术 (Trench Field Stop) 理论, 通过采用高密度器件结构设计以及先进的超薄芯片加工工艺, 推出全新一代 Trench FS-B 系列 IGBT 产品, 该系列产品通过优化载流子注入效率和载流分布, 显著降低器件的饱和压降 ( $V_{CE(sat)}$ ) 和关断损耗 ( $E_{off}$ ), 从而降低器件功耗, 提升系统效率。此外该系列产品通过优化器件结构设计, 使其在工作过程中的电压和电流谐振更小, 为系统设计提供更大余量。

根据不同应用领域的特殊要求, 针对性的开发了适用于软开关和硬开关的专门 IGBT 产品系列, 以及搭载不同规格二极管的产品系列, 提供最匹配客户性能需求的产品。全新一代 Trench FS II IGBT 系列产品可以广泛应用于电机驱动、PFC、逆变器、UPS、逆变焊机、变频器、感应加热等应用场合。

600V~1350V IGBT选型参考



器件特点:

- 饱和压降低
- 开关损耗小
- 功率密度高
- 开关震荡低
- 参数一致性高

应用优势:

- 损耗低, 发热小
- 更宽的应用频率范围
- 更小的封装体积
- 更好的 EMC 特性
- 系统可靠性高

## 绝缘栅双极型晶体管 (IGBT)

### V<sub>CE</sub>: 600V-650V 沟槽场截止型 IGBT 产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>j</sub> =100°C	T <sub>j</sub> =25°C	(V)	(V)	Typ	Max		(us)	
600V	NCE07TD60BF	TO-220F	7	31	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE07TD60B	TO-220	7	87	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE07TD60BD	TO-263	7	87	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE07T60BI	TO-251	7	87	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE07TD60BI	TO-251	7	87	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE07TD60BK	TO-252	7	87	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE10TD60BF	TO-220F	10	38	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE10TD60B	TO-220	10	100	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE10TD60BD	TO-263	10	100	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE10TD60BK	TO-252	10	100	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD60BF	TO-220F	15	40	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD60B	TO-220	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15T60BD	TO-263	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD60BD	TO-263	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD60BP	TO-3P	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD60BT	TO-247	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD60BF	TO-220F	20	41	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD60B	TO-220	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD60BD	TO-263	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD60BP	TO-3P	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD60BT	TO-247	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TH60BF	TO-220F	20	41	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TH60BP	TO-3P	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60BF	TO-220F	30	42	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60B	TO-220	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60BD	TO-263	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60BP	TO-3P	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60BT	TO-247	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TH60BP	TO-3P	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD60BPF	TO-3PF	30	71	30	5.00	1.70	1.90	1~60KHz	5	Production
NCE30TH60BPF	TO-3PF	30	71	30	5.00	1.70	1.90	1~60KHz	5	Production	
NCE40T60BP	TO-3P	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production	
NCE40TD60BP	TO-3P	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production	
NCE40TD60BPF	TO-3PF	40	75	30	5.00	1.70	1.90	1~60KHz	5	Production	
NCE40TD60BT	TO-247	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production	

## 绝缘栅双极型晶体管 (IGBT)

## VCE: 600V-650V 沟槽场截止型 IGBT 产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	Typ	Max		(us)	
600V	NCE40TH60BP	TO-3P	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE40TH60BPF	TO-3PF	40	75	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE60TD60BP	TO-3P	60	405	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE60TD60BT	TO-247	60	405	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE80TD60BP	TO-3P	80	416	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE80TD60BT	TO-247	80	416	30	5.00	1.70	1.90	1~60KHz	5	Production
650V	NCE15TD65BF	TO-220F	15	40	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD65BT	TO-247	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE15TD65BP	TO-3P	15	126	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD65BT	TO-247	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD65BP	TO-3P	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE20TD65BD	TO-263	20	163	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD65BD	TO-263	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD65BT	TO-247	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE30TD65BP	TO-3P	30	176	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE40TD65BT	TO-247	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE40TD65BP	TO-3P	40	200	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE60TD65BT	TO-247	60	405	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE60TD65BT4	TO-247-4L	60	405	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE60TD65BP	TO-3P	60	405	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE80TD65BT	TO-247	80	416	30	5.00	1.70	1.90	1~60KHz	5	Production
	NCE80TD65BP	TO-3P	80	416	30	5.00	1.70	1.90	1~60KHz	5	Production
NCE80TD65BT4	TO-247-4L	80	416	30	5.00	1.70	1.90	1~60KHz	5	Production	

绝缘栅双极型晶体管 (IGBT)

V<sub>CE</sub>: 1200V-1350V 沟槽场截止型 IGBT 产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)		P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C				Typ	Max			
1200V	NCE15TD120BT	TO-247	15	300	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE15TD120BP	TO-3P	15	300	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE25TD120BT	TO-247	25	365	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE25TD120BP	TO-3P	25	365	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE40TD120BT	TO-247	40	468	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE40TD120BP	TO-3P	40	468	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE50TD120BT	TO-247	50	535	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE50TD120BP	TO-3P	50	535	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE75TD120BT	TO-247	75	833	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE75TD120BTP	TO-247P	75	833	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE75TD120BT4	TO-247-4L	75	833	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE75TD120BTP4	TO-247P-4L	75	833	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE100TD120BTP	TO-247P	100	937	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE100TD120BTP4	TO-247P-4L	100	937	30	5.50	1.55	1.80	1~20KHz	10	Production	
	NCE15TD120LT	TO-247	15	300	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE15TD120LP	TO-3P	15	300	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE25TD120LT	TO-247	25	365	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE25TD120LP	TO-3P	25	365	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE40TD120LT	TO-247	40	468	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE40TD120LP	TO-3P	40	468	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE50TD120LT	TO-247	50	535	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE50TD120LP	TO-3P	50	535	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE75TD120LT	TO-247	75	833	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE75TD120LP	TO-3P	75	833	30	5.50	1.50	1.75	1~10KHz	/	Production	
	NCE30TD120UT	TO-247	30	468	30	5.50	1.95	2.30	15~40KHz	5	Production	
	NCE40TD120UT	TO-247	40	535	30	5.50	1.95	2.30	15~40KHz	5	Production	
	NCE60TD120UT	TO-247	60	667	30	5.50	1.95	2.30	15~40KHz	5	Production	
	NCE25T120VT	TO-247	25	365	30	5.00	1.70	1.95	10~40KHz	/	Production	
	NCE25TD120VT	TO-247	25	365	30	5.00	1.70	1.95	10~40KHz	/	Production	
	NCE25TD120VTP	TO-247P	25	365	30	5.00	1.70	1.95	10~40KHz	/	Production	
	NCE40T120VT	TO-247	40	468	30	5.00	1.70	1.95	10~40KHz	/	Production	
	NCE40TD120VT	TO-247	40	468	30	5.00	1.70	1.95	10~40KHz	/	Production	
NCE40TD120VTP	TO-247P	40	468	30	5.00	1.70	1.95	10~40KHz	/	Production		

绝缘栅双极型晶体管 (IGBT)

V<sub>CE</sub>: 1200V-1350V 沟槽场截止型 IGBT 产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	Typ	Max		(us)	
1200V	NCE40TS120VT	TO-247	40	468	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE40TS120VTP	TO-247P	40	468	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE50T120VT	TO-247	50	535	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE50TD120VT	TO-247	50	535	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE50TD120VTP	TO-247P	50	535	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE50TS120VT	TO-247	50	535	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE50TS120VTP	TO-247P	50	535	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75T120VT	TO-247	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TD120VT	TO-247	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TD120VTP	TO-247P	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TD120VTP4	TO-247P-4L	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TS120VT	TO-247	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TS120VTP	TO-247P	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE75TS120VTP4	TO-247P-4L	75	833	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE100TD120VTP	TO-247P	100	937	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE100TD120VTP4	TO-247P-4L	100	937	30	5.00	1.70	1.95	10~40KHz	/	Production
	NCE25TD120W	TO-220	25	365	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE25TD120WT	TO-247	25	365	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE40TD120WT	TO-247	40	468	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE40TD120WW	TO-264	40	468	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE50TD120WT	TO-247	50	535	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE50TD120WW	TO-264	50	535	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE75TD120WT	TO-247	75	833	30	5.00	1.90	2.20	10~40KHz	/	Production
	NCE75TD120WT4	TO-247-4L	75	833	30	5.00	1.90	2.20	10~40KHz	/	Production
NCE75TD120WW	TO-264	75	833	30	5.00	1.90	2.20	10~40KHz	/	Production	
NCE75TD120WTP	TO-247P	75	833	30	5.00	1.90	2.20	10~40KHz	/	Production	
NCE75TD120WTP4	TO-247P-4L	75	833	30	5.00	1.90	2.20	10~40KHz	/	Production	
NCE100TD120WW	TO-264	75	937	30	5.00	1.90	2.20	10~40KHz	/	Production	
NCE100TD120WTP	TO-247P	100	937	30	5.00	1.90	2.20	10~40KHz	/	Production	
NCE100TD120WTP4	TO-247P-4L	100	937	30	5.00	1.90	2.20	10~40KHz	/	Production	
1350V	NCE15TD135LT	TO-247	15	300	30	5.50	1.50	1.75	1~10KHz	/	Production
	NCE15TD135LP	TO-3P	15	300	30	5.50	1.50	1.75	1~10KHz	/	Production
	NCE25TD135LT	TO-247	25	365	30	5.50	1.50	1.75	1~10KHz	/	Production
	NCE25TD135LP	TO-3P	25	365	30	5.50	1.50	1.75	1~10KHz	/	Production
	NCE40TD135LT	TO-247	40	468	30	5.50	1.50	1.75	1~10KHz	/	Production
	NCE40TD135LP	TO-3P	40	468	30	5.50	1.50	1.75	1~10KHz	/	Production

## 绝缘栅双极型晶体管 (IGBT) E 系列产品介绍 New

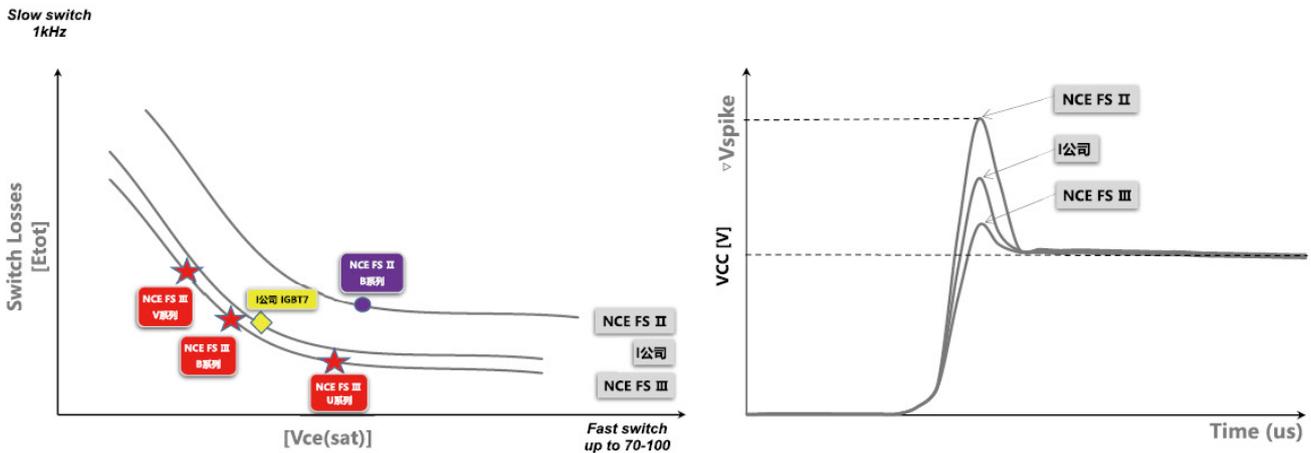
新洁能采用高元胞密度器件结构设计、载流子贮存技术、多梯度缓存层技术、以及先进的超薄芯片加工工艺，推出新一代 Trench FS III 系列 IGBT 产品。该系列产品具有超低饱和压降 ( $V_{CE(sat)}$ )、更高的功率密度、卓越的开关断损耗 ( $E_{on}$ 、 $E_{off}$ ) 折中特性、以及更优良的开关特性表现，同时具备高可靠性等特点，可大幅降低系统损耗，为系统设计提供更充分的余量。

Trench FS III 系列 IGBT 产品包括 650V、750V、1200V 等电压平台，产品电流涵盖 6A~225A 等多个电流规格，封装外形包括：TO-252、TO-263、TO-220、TO-220F、TO-247-3L、TO-247-4L、TO-247P-3L、TO-247P-4L 等；

Trench FS III 系列 IGBT 产品率先推出了全球领先的超大电流 IGBT 单管系列产品，如 650V/750V：100A~225A 系列和 1200V：100A~150A 系列等，为提升系统功率密度和降低系统成本提供了更多选择。

根据不同应用领域的特点，针对性的开发了适用于大多数应用的通用型 B 系列产品、适用于光伏新能源应用的高饱和电流低饱和压降的 V 系列产品、适用于高频应用具备短路能力的 U 系列产品。新一代 Trench FS III IGBT 系列产品，可广泛适用于新能源汽车、新能源发电、工业变频、逆变器、UPS 等市场领域。

### 产品性能对比



项目	NCE		国际O公司	国际I公司	Unite
	NCE40TD120VT	NCE40ED120VT	40N120FL3	40N120H3	
$V_{(BR)CES}$	1321	1358	1397	1323	V
$V_{CE(sat)}$	1.71	1.55	1.63	1.89	V
$V_{GE(th)}$	5.1	5.0	5.8	5.7	V
$V_F$	2.280	2.075	3.18	2.50	V
Ciss	5040	2535	4950	2330	pF
$Q_g$	266	123	240	204	nC
$E_{off}$	1.525	1.522	1.48	1.70	mJ

项目	NCE		国际O公司	国际I公司	Unite
	NCE40TD65BT	NCE40ED65VT	40T65SHD	40N65E55	
$V_{(BR)CES}$	714	758	694	728	V
$V_{CE(sat)}$	1.75	1.35	1.56	1.35	V
$V_{GE(th)}$	5.4	4.7	4.7	4.0	V
$V_F$	1.85	1.65	2.88	1.45	V
Ciss	4879	1341	1973	2500	pF
$Q_g$	172	52	75	95	nC
$E_{off}$	0.832	0.795	0.815	0.805	mJ

## 绝缘栅双极型晶体管 (IGBT)

### V<sub>CE</sub>: 650V-1200V 沟槽场截止型 IGBT E 系列产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	Typ	Max		(us)	
650V	NCE06ER65BK	TO-252	6	87	30	5.20	1.40	1.70	1~60KHz	8	Coming Soon
	NCE06ER65BI	TO-251	6	87	30	5.20	1.40	1.70	1~60KHz	8	Coming Soon
	NCE20ER65BP	TO-3P	20	163	30	5.20	1.40	1.70	1~60KHz	8	Coming Soon
	NCE20ER65BT	TO-247	20	163	30	5.20	1.40	1.70	1~60KHz	8	Coming Soon
	NCE20ED65BT	TO-247	20	163	30	5.20	1.40	1.70	1~60KHz	8	Coming Soon
	NCE20ED65UT	TO-247	20	163	30	5.20	1.55	1.80	1~100KHz	8	Coming Soon
	NCE30ED65BF	TO-220F	30	42	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ED65B	TO-220	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ED65BD	TO-263	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ED65BP	TO-3P	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ED65BT	TO-247	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ED65UT	TO-247	30	176	30	5.20	1.55	1.80	1~100KHz	8	Production
	NCE30ED65VT	TO-247	30	176	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE30ED65VD	TO-263	30	176	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE30ER65BT	TO-247	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ER65BP	TO-3P	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE30ER65BPF	TO-3PF	30	176	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65BF	TO-220F	40	43	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65B	TO-220	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65BD	TO-263	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65BP	TO-3P	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65BT	TO-247	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ED65UT	TO-247	40	200	30	5.20	1.55	1.80	1~100KHz	8	Production
	NCE40ED65VT	TO-247	40	200	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE40ED65VD	TO-263	40	200	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE40ER65BT	TO-247	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ER65BP	TO-3P	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE40ER65BPF	TO-3PF	40	200	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE50ED65BP	TO-3P	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE50ED65BT	TO-247	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production
NCE50ED65UT	TO-247	50	260	30	5.20	1.55	1.80	1~100KHz	8	Production	
NCE50ED65VT	TO-247	50	260	30	4.70	1.35	1.60	1~60KHz	/	Production	
NCE50ER65BT	TO-247	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production	
NCE50ER65BP	TO-3P	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production	
NCE50ER65BPF	TO-3PF	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production	
NCE75ED65BT	TO-247	75	408	30	5.20	1.40	1.70	1~60KHz	8	Production	

## 绝缘栅双极型晶体管 (IGBT)

### V<sub>CE</sub>: 650V-1200V 沟槽场截止型 IGBT E 系列产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	Typ	Max		(us)	
650V	NCE75ED65UT	TO-247	75	408	30	5.20	1.55	1.80	1~100KHz	8	Production
	NCE75ED65BT4	TO-247-4L	75	408	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE75ED65VT	TO-247	75	408	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE75ED65VT4	TO-247	75	408	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE100ED65BT	TO-247	100	420	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE100ED65UT	TO-247	100	420	30	5.20	1.55	1.80	1~100KHz	8	Production
	NCE100ED65BT4	TO-247-4L	100	420	30	5.20	1.40	1.70	1~60KHz	8	Production
	NCE100ED65VT	TO-247	100	420	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE100ED65VT4	TO-247-4L	100	420	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE100ED65VTP	TO-247P	100	420	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE100ED65VTP4	TO-247P-4L	100	420	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE160ED65BTP	TO-247P	160	600	30	5.20	1.35	1.70	1~60KHz	8	Production
	NCE160ED65BTP4	TO-247P-4L	160	600	30	5.20	1.35	1.70	1~60KHz	8	Production
	NCE160ED65VTP	TO-247P	160	600	30	4.70	1.30	1.60	1~60KHz	/	Production
	NCE160ED65VTP4	TO-247P-4L	160	600	30	4.70	1.30	1.60	1~60KHz	/	Production
	NCE225ED65BTP	TO-247P	225	1270	30	5.20	1.35	1.70	1~60KHz	8	Production
NCE225ED65VTP	TO-247P	225	1270	30	4.70	1.30	1.60	1~60KHz	/	Production	
750V	NCE160ED75BTP	TO-247P	160	600	30	5.20	1.35	1.60	1~60KHz	8	Production
	NCE160ED75BTP4	TO-247P-4L	160	600	30	5.20	1.35	1.60	1~60KHz	8	Production
	NCE160ED75VTP	TO-247P	160	600	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE160ED75VTP4	TO-247P-4L	160	600	30	4.70	1.35	1.60	1~60KHz	/	Production
	NCE225ED75BTP	TO-247P	225	1270	30	5.20	1.35	1.60	1~60KHz	8	Production
	NCE225ED75VTP	TO-247P	225	1270	30	4.70	1.35	1.60	1~60KHz	/	Production
1200V	NCE15ED120BT	TO-247	15	300	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE15ED120BP	TO-3P	15	300	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE25ED120BT	TO-247	25	365	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE25ED120BP	TO-3P	25	365	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE40ED120BT	TO-247	40	468	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE40ED120BP	TO-3P	40	468	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE50ED120BT	TO-247	50	535	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE50ED120BP	TO-3P	50	535	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE75ED120BT	TO-247	75	833	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE75ED120BTP	TO-247P	75	833	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE75ED120BT4	TO-247-4L	75	833	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE75ED120BTP4	TO-247P-4L	75	833	30	5.50	1.50	1.75	1~20KHz	10	Production

## 绝缘栅双极型晶体管 (IGBT)

 V<sub>CE</sub>: 650-1200V 沟槽场截止型 IGBT E 系列产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)	P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>J</sub> =100°C	T <sub>J</sub> =25°C	(V)	(V)	Typ	Max		(us)	
1200V	NCE100ED120BTP	TO-247P	100	937	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE100ED120BTP4	TO-247P-4L	100	937	30	5.50	1.50	1.75	1~20KHz	10	Production
	NCE125ED120BTP	TO-247P	125	1170	30	5.50	1.50	1.75	1~20KHz	10	Coming Soon
	NCE125ED120BTP4	TO-247P-4L	125	1170	30	5.50	1.50	1.75	1~20KHz	10	Coming Soon
	NCE150ED120BTP	TO-247P	150	1412	30	5.50	1.50	1.75	1~20KHz	10	Coming Soon
	NCE150ED120BTP4	TO-247P-4L	150	1412	30	5.50	1.50	1.75	1~20KHz	10	Coming Soon
	NCE25E120VT	TO-247	25	365	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE25ED120VT	TO-247	25	365	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE25ED120VTP	TO-247P	25	365	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE40E120VT	TO-247	40	468	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE40ED120VT	TO-247	40	468	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE40ED120VTP	TO-247P	40	468	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE50E120VT	TO-247	50	535	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE50ED120VT	TO-247	50	535	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE50ED120VTP	TO-247P	50	535	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE75ED120VT	TO-247	75	833	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE75ED120VT4	TO-247-4L	75	833	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE75ED120VTP	TO-247P	75	833	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE75ED120VTP4	TO-247P-4L	75	833	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE100ED120VTP	TO-247P	100	937	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE100ED120VTP4	TO-247P-4L	100	937	30	5.00	1.60	1.85	1~40KHz	/	Production
	NCE125ED120VTP	TO-247P	125	1170	30	5.00	1.60	1.85	1~40KHz	/	Coming Soon
	NCE125ED120VTP4	TO-247P-4L	125	1170	30	5.00	1.60	1.85	1~40KHz	/	Coming Soon
	NCE150ED120VTP	TO-247P	150	1412	30	5.00	1.60	1.85	1~40KHz	/	Coming Soon
	NCE150ED120VTP4	TO-247P-4L	150	1412	30	5.00	1.60	1.85	1~40KHz	/	Coming Soon
	NCE25ED120W	TO-220	25	365	30	5.00	1.80	2.20	10~50KHz	/	Production
	NCE25ED120WT	TO-247	25	365	30	5.00	1.80	2.20	10~50KHz	/	Production
	NCE40ED120WT	TO-247	40	468	30	5.00	1.80	2.20	10~50KHz	/	Production
	NCE40ED120WW	TO-264	40	468	30	5.00	1.80	2.20	10~50KHz	/	Production
	NCE50ED120WT	TO-247	50	535	30	5.00	1.80	2.20	10~50KHz	/	Production
NCE50ED120WW	TO-264	50	535	30	5.00	1.80	2.20	10~50KHz	/	Production	
NCE75ED120WT	TO-247	75	833	30	5.00	1.80	2.20	10~50KHz	/	Production	
NCE75ED120WW	TO-264	75	833	30	5.00	1.80	2.20	10~50KHz	/	Production	

## 绝缘栅双极型晶体管 (IGBT)

### V<sub>CE</sub>: 650V-1200V 沟槽场截止型 IGBT E 系列 IGBT+SiC SBD 产品列表

Voltage	Part Number	Package	I <sub>c</sub> (A)		P <sub>D</sub> (W)	V <sub>GE</sub>	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V, 25°C		Switching Frequency	T <sub>sc</sub>	Part Status
			T <sub>j</sub> =100°C	T <sub>j</sub> =25°C				Typ	Max			
650V	NCE50EC65BT	TO-247	50	260	30	5.20	1.40	1.70	1~60KHz	8	Production	
	NCE50EC65VT	TO-247	50	260	30	4.70	1.35	1.60	1~60KHz	/	Production	
	NCE75EC65BT	TO-247	75	408	30	5.20	1.40	1.70	1~60KHz	8	Production	
	NCE75EC65VT	TO-247	75	408	30	4.70	1.35	1.60	1~60KHz	/	Production	
1200V	NCE40EC120VT	TO-247	40	468	30	5.00	1.60	1.85	1~40KHz	/	Production	
	NCE40EC120VTP	TO-247P	40	468	30	5.00	1.60	1.85	1~40KHz	/	Production	
	NCE50EC120VT	TO-247	50	535	30	5.00	1.60	1.85	1~40KHz	/	Production	
	NCE50EC120VTP	TO-247P	50	535	30	5.00	1.60	1.85	1~40KHz	/	Production	
	NCE75EC120VTP	TO-247P	75	833	30	5.00	1.60	1.85	1~40KHz	/	Production	

## 功率模块 (Power Module)

以先进的 IGBT 芯片技术为基础，结合高可靠性的封装技术，新洁能推出全新的 IGBT 功率集成模块 (PIM) 系列产品。该系列产品包括 650V、750V、1200V 和 1700V 系列产品，并搭载了不同系列的 IGBT 芯片，以保证产品工作效率最优；同时，可以提供各种通用的封装外形和电路拓扑的 IGBT 功率模块产品，满足不同的应用要求。新洁能的 PIM 可以广泛用于工业变频、工业逆变、新能源、汽车电子等领域。



34mm



62mm



E7



E2



E4



E6



H3



Y1



Y2



H1

## IGBT PIM 模块

### V<sub>CE</sub>: 1200V-1700V IGBT PIM 产品列表

Voltage	Internal Circuit	Part Number	Package	I <sub>c</sub> (A)	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V		Switching Frequency	T <sub>sc</sub>	Part Status
				T <sub>j</sub> =100°C	(V)	Typ	Max		(us)	
1200V		NCEM40W120HA34	34mm	40	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM50W120HA34	34mm	50	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM75W120HA34	34mm	75	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM100W120HA34	34mm	100	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM100W120HA62	62mm	100	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM150W120HA62	62mm	100	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM200W120HA62	62mm	100	5.50	2.00	2.40	10~40KHz	/	Production
		NCEM15C120PRY1	Y1-PIM	15	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM25C120PRY2	Y2-PIM	25	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM40C120PRY2	Y2-PIM	40	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM15C120PRE4	E4-PIM	15	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM25C120PRE4	E4-PIM	25	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM40C120PRE4	E4-PIM	40	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120PRE4	E4-PIM	50	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120PRE6	E6-PIM	50	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM75C120PRE6	E6-PIM	75	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120PRE7	E7-PIM	50	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM75C120PRE7	E7-PIM	75	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM100C120PRE7	E7-PIM	100	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM150C120PRE7	E7-PIM	150	5.50	1.55	1.80	1~20Khz	10	Coming Soon
		NCEM25C120FAY1	Y1-PACK	25	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM40C120FAY1	Y1-PACK	40	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120FAY2	Y2-PACK	50	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM75C120FAY2	Y2-PACK	75	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120FAE4	E4-PACK	50	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM75C120FAE4	E4-PACK	75	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM100C120FAE4	E4-PACK	100	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM50C120FAE6	E6-PACK	50	5.50	1.55	1.80	1~20Khz	10	Production
NCEM75C120FAE6		E6-PACK	75	5.50	1.55	1.80	1~20Khz	10	Production	
NCEM100C120FAE6		E6-PACK	100	5.50	1.55	1.80	1~20Khz	10	Production	
NCEM150C120FAE6		E6-PACK	150	5.50	1.55	1.80	1~20Khz	10	Production	
NCEM200C120FAE6		E6-PACK	200	5.50	1.55	1.80	1~20Khz	10	Production	

## IGBT PIM 模块

### V<sub>CE</sub>: 1200V-1700V IGBT PIM 产品列表

Voltage	Internal Circuit	Part Number	Package	I <sub>c</sub> (A)	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V		Switching Frequency	T <sub>sc</sub> (us)	Part Status
				T <sub>J</sub> =100℃	(V)	Typ	Max			
1200V		NCEM150C120HNE2	E2	150	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM225C120HNE2	E2	225	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM300C120HNE2	E2	300	5.50	1.55	1.80	1~20Khz	10	Production
		NCEM450C120HNE2	E2	450	5.50	1.55	1.80	1~20Khz	10	Coming Soon
		NCEM600C120HNE2	E2	600	5.50	1.55	1.80	1~20Khz	10	Coming Soon
1700V		NCEM450C170HNE2	E2	450	5.50	1.90	2.30	1~20Khz	10	Production
		NCEM600C170HNE2	E2	600	5.50	1.90	2.30	1~20Khz	10	Production

## IGBT PIM 电动汽车控制模块

### V<sub>CE</sub>: 650V-1200V IGBT PIM 产品列表

Voltage	Internal Circuit	Part Number	Package	I <sub>c</sub> (A)	V <sub>TH</sub> -Typ	V <sub>CE(sat)</sub> (V) @V <sub>GE</sub> =15V		Switching Frequency	T <sub>sc</sub> (us)	Part Status
				T <sub>J</sub> =100℃	(V)	Typ	Max			
650V		NCEM200B65FAH1	H1	200	5.50	1.45	1.90	1~30Khz	5	Coming Soon
		NCEM300B65FAH1	H1	300	5.50	1.45	1.90	1~30Khz	5	Coming Soon
		NCEM400B65FAH1	H1	400	5.50	1.45	1.90	1~30Khz	5	Coming Soon
750V		NCEM660E75FAH1	H3	660	5.50	1.25	1.50	1~30Khz	5	Coming Soon
		NCEM820E75FAH1	H3	820	5.50	1.25	1.50	1~30Khz	5	Coming Soon
1200V		NCEM600C120FAH1	H3	600	5.50	1.55	1.80	1~20Khz	5	Coming Soon

## 栅极驱动 IC (Gate Driver IC)

栅极驱动芯片是控制信号与功率开关器件（MOSFET、IGBT、SiC MOSFET 和 GaN HEMT）的信号传输通道。高集成度的栅极驱动芯片有助于降低设计复杂度、缩短项目开发周期、减少材料清单和减小系统体积。相比于传统分立元器件搭建的驱动方案，栅极驱动芯片还将有助于提升系统可靠性。

每一个功率开关器件均需要一个驱动，每一个驱动也需要一个功率开关器件。新洁能推出栅极驱动芯片系列产品，提供了一个全面的驱动器集成电路组合，具有各种配置、电压等级、隔离级别、保护功能和封装选项。配合新洁能高性能 MOSFET 和 IGBT 产品，满足客户在应用系统中核心芯片需求。

### 栅极驱动 IC (Gate Driver IC)

#### 耐压: 20V-600V 栅极驱动芯片产品列表

系统电压 Voltage	产品类型	芯片型号 Part NO	功能 Function	驱动能力 IO+/-	封装形式 PKG	竞品型号 CrossRef.
20V	低侧驱动	NSG44271	低侧、双通道、三输入	2A/2A	SOP8	XX44271
		NSG44272	低侧、单通道、双输入(IN&EN)	2A/2A	SOT23-5	XX44272
		NSG44273	低侧、单通道、单输入	2A/2A	SOT23-5	XX44273
		NSG3111C	低侧、单通道、双输入(IN+&IN-)	2A/2A	SOT23-5	XX3111C
		NSG4426	低侧、双通道（双同）	2A/2A	两种封装	XX4426
		NSG4427	低侧、双通道（双反）	2A/2A	两种封装	XX4427
		NSG4428	低侧、双通道（同/反）	2A/2A	两种封装	XX4428
		NSG27517	低侧、单通道驱动	4A/4A	SOT23-5	XX27517
		NSG3100C	低侧、单通道、双输入驱动	4A/4A	三种封装	XX3100C
		NSG27424	低侧、双通道、四输入驱动	4A/4A	SOP8	XX27524
40V	P/N 半桥驱动	NSG0420	P+N、单相桥驱动, 5V LDO	集成 Rgate	SOP8	--
		NSG0421	P+N、单相桥驱动, 3.3V LDO	集成 Rgate	SOP8	--
		NSG0460	P+N、三相桥驱动, 5V LDO	50/300mA	ESOP16	XX6830
		NSG0462	P+N、三相桥驱动, 5V LDO	50/300mA	SOP16	XX6971
		NSG0462U	P+N、三相桥驱动, 5V LDO	50/300mA	SOP16	--
		NSG0463	P+N、三相桥驱动, 3.3V LDO	50/300mA	SOP16	--
		NSG0463U	P+N、三相桥驱动, 3.3V LDO	50/300mA	SOP16	--

## 栅极驱动 IC (Gate Driver IC)

耐压: 20V-600V 栅极驱动芯片产品列表

系统电压 Voltage	产品类型	芯片型号 Part NO	功能 Function	驱动能力 IO+/-	封装形式 PKG	竞品型号 CrossRef.
200V	200V 半桥驱动	G2020	N+N、单相桥驱动, 低侧反相	1.5A/1.5A	SOP8	XX2103
		G2021	N+N、单相桥驱动, 低侧同相	1.5A/1.5A	SOP8	--
		G2022	N+N、单相桥驱动, 低侧反相	1.5A/1.5A	SOP8	--
		G2060	N+N、三相桥驱动, 低侧反相	1.8A/2.0A	TSSOP20	XX6287
		G2061	N+N、三相桥驱动, 低侧同相	1.8A/2.0A	TSSOP20	XX6288
		G2061Q	N+N、三相桥驱动, 低侧同相	1.8A/2.0A	QFN24	XX6288Q
		NSG2127	带过流检测的高侧驱动	260/600mA	SOP8	XX2127
		NSG2007	N+N、单相桥驱动, 低侧反相	290/600mA	SOP8	XX2007
		NSG2008	N+N、单相桥驱动, IN & /SD	290/600mA	SOP8	XX2008
600V	600V 半桥驱动	NSG2113	N+N,单相驱动,带 SD 功能	4A/4A	SOP16(W)	XX2113
		NSG2186	N+N,单相驱动,高低侧同相	4A/4A	SOP8	XX2186
		NSG2184	N+N,单相驱动,单输入带 SD	4A/4A	SOP8	XX2184
		NSG2101	N+N,单相驱动,高低侧同相	260mA/600mA	SOP8	XX2101
		NSG2103	N+N,单相驱动,低侧反相	260mA/600mA	SOP8	XX2103
		NSG2136	N+N,三相驱动,高低侧反相	260mA/600mA	SOP28	XX2136
		NSG2186	N+N,单相驱动,高低侧同相	4A/4A	SOP8	XX2186
		NSG2184	N+N,单相驱动,单输入带 SD	4A/4A	SOP8	XX2184

## 电源管理芯片 (Power Management IC)

产品类型	芯片型号 Part NO	功能 Function	输入电压 (V)	输出电压 (V)	驱动能力 (mA/Ω)	充电电流 (mA)	封装形式 PKG	竞品型号 CrossRef.
电源管理	NSC1002	可调式正负压输出	2.5~3.8	VP: 4.5~6, VN: -4.5~-6	100mA	--	TDFN12	XX1002
	NSC50198	可调式正负压输出	2.5~4.8	VP: 5.8~6, VN: -5.8~-6	150mA	--	TDFN12	XX50198
	NSL2020B	电子烟控制芯片	4.5~5.5	3.5V	1.2Ω	650mA	SOT23-6	XX086
	NST03AA	便携式设备充电仓	3.2~5.5	5V	700mA	300mA	ESOP8	XX03AA

## 封装外观 Package Top View



WLCSP



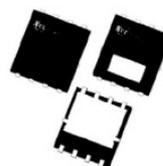
WLCSP



DFN2\*2



DFN3\*3



DFN5\*6  
(双面散热)



DFN8\*8



SOT523



SOT23



SOT-23-6L



SOT-89



SOT-223



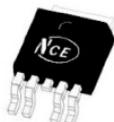
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SOP-8



TO-252-2L



TO-252-4L



TO263



TO-263-6L



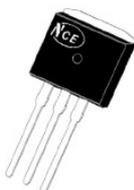
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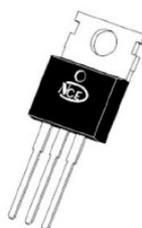
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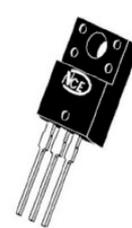
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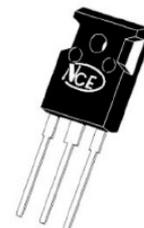
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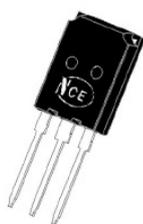
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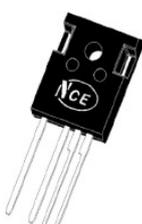
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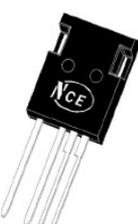
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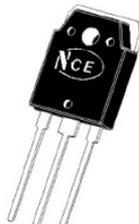
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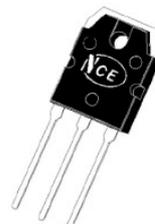
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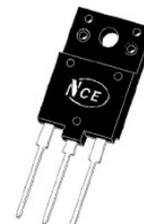
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TO-3P



TO-3PNT



TO-3PF



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