/ Descriptions

SGIQ6Ö60;0 ṂṂ Ł ᵴ Q ᵴ PRV ʃ, ῶ Ẓ ᵀ
Grxe0h Q0FKDQQHO PRVIHW lq d SGIQ6Ö60;0 S0dvwlf Sdfndjh1

/ Features

V_{DS} (V) = 30V
I_D =24A (V_{GS} = 20V)
$R_{DS(ON)}$@10V 13mR(Typ.11mR)
ṇ ᵻ ᵝ KI Surgxfw1

/ Applications

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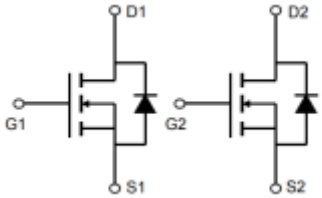
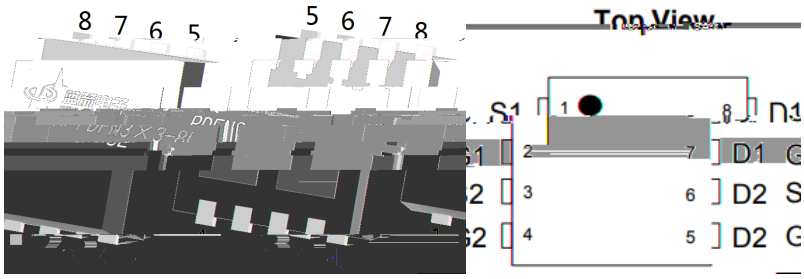
Lqwhqghg iru xvh lq jhqhud0 sxusrvh vzlwfklqj dqg skdvh frqwur0 dss0lfdwlrqv1

/ Equivalent Circuit



/ Pinning



/ Marking

ð м ٦ ب ˝ See Marking Instructions.

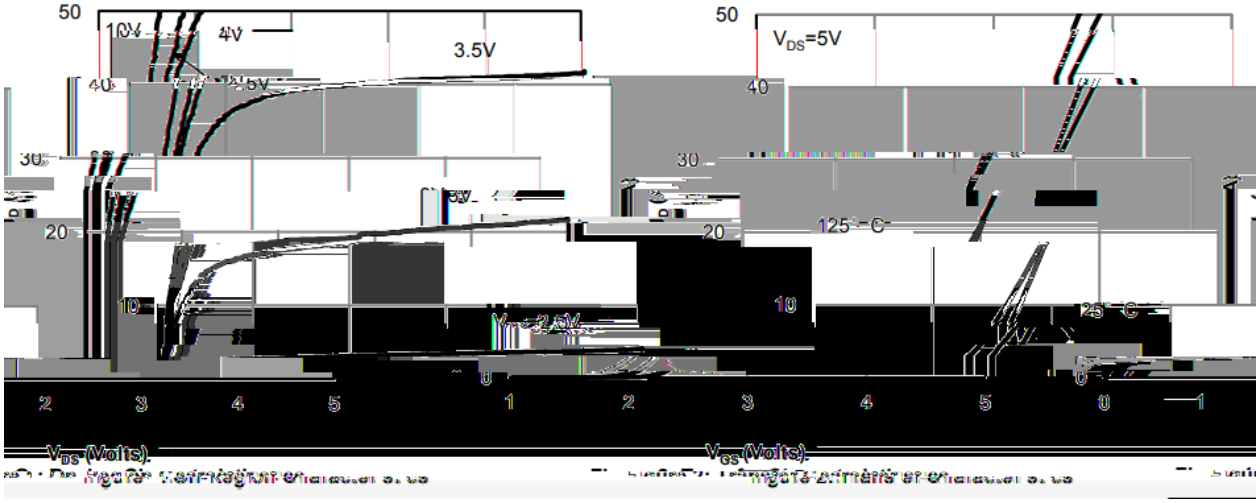
/ Absolute Maximum Ratings(Ta=25)

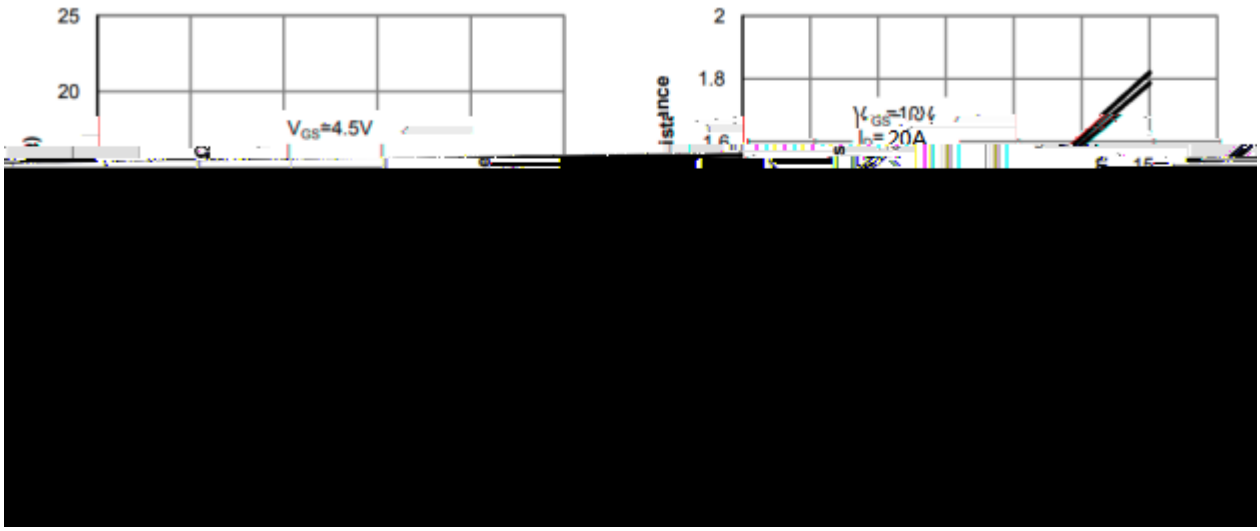
v ″Ω Parameter		ϒ N Symbol	″Ω Ö Rating	D Ч Unit
Drain-Source Voltage		V_{DSS}	30	V
Drain Current		I_D(Tc=25)	24	A
Drain Current - Pulsed		I_{DM}	55	A
Gate-Source Voltage		V_{GSS}	±20	V
Single Pulsed Avalanche Energy		E_{AS}	199	mJ
Avalanche Current		I_{AS}	12.9	A
Power Dissipation		P_D(Tc=25)	15.5	W
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to 150	
Junction-to-Ambient	t 10	R_{dJA}	40	/W
Junction-to-Ambient	Steady-State		75	
Junction-to-Case	Steady-State	R_{dJC}	9	

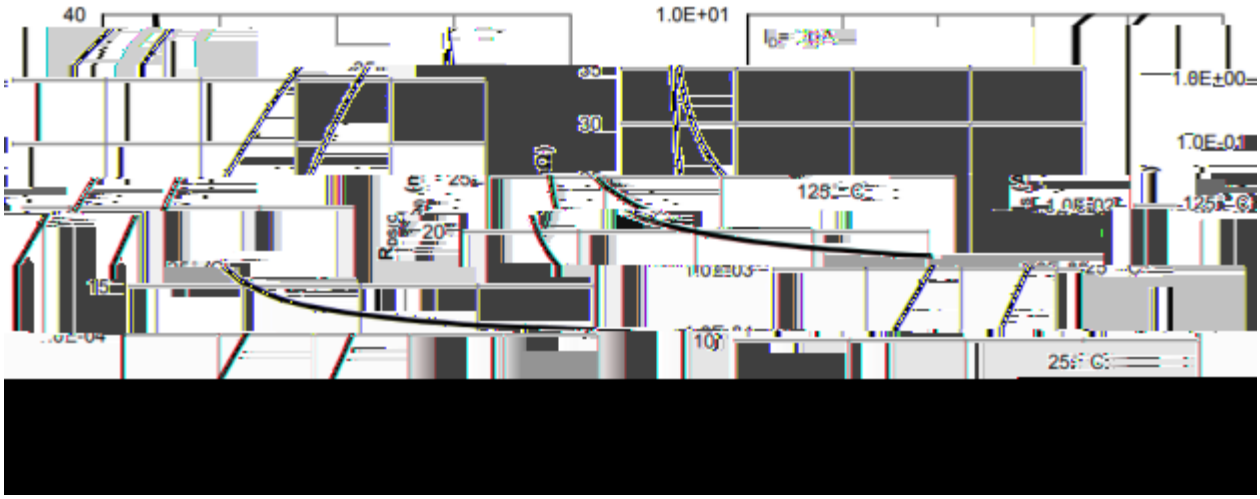
/ Electrical Characteristics(Ta=25)

v Ω Parameter	ϒ N Symbol	⅄ ⁝ˈ ϒ Test Conditions	ϣ ŋ Ö Min	Ɛ ʒ Ö Typ	ϣ ᶻ Ö Max	ɒ ɥ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250εA	30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V V_{GS}=0V			1	εA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±0.1	εA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250εA	1.0	1.8	3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=20A		11	13	mq
		V_{GS}=4.5V I_D=10A		16	20	mq
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A			1.2	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		666		pF
Output Capacitance	C_{oss}			26		
Reverse Transfer Capacitance	C_{rss}			63		
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		1.7		q
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=15V I_D=8A		13.6		nC
Total Gate Charge	$Q_{g(4.5V)}$			6.8		
Gate Source Charge	Q_{gs}			1.6		
Gate Drain Charge	Q_{gd}			3.6		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=15V R_L=1.87q R_{GEN}=4.5q		5		ns
Turn-On Rise Time	t_r			3.5		
Turn-Off Delay Time	$t_{d(off)}$			22		
Turn-Off Fall Time	t_f			4.5		

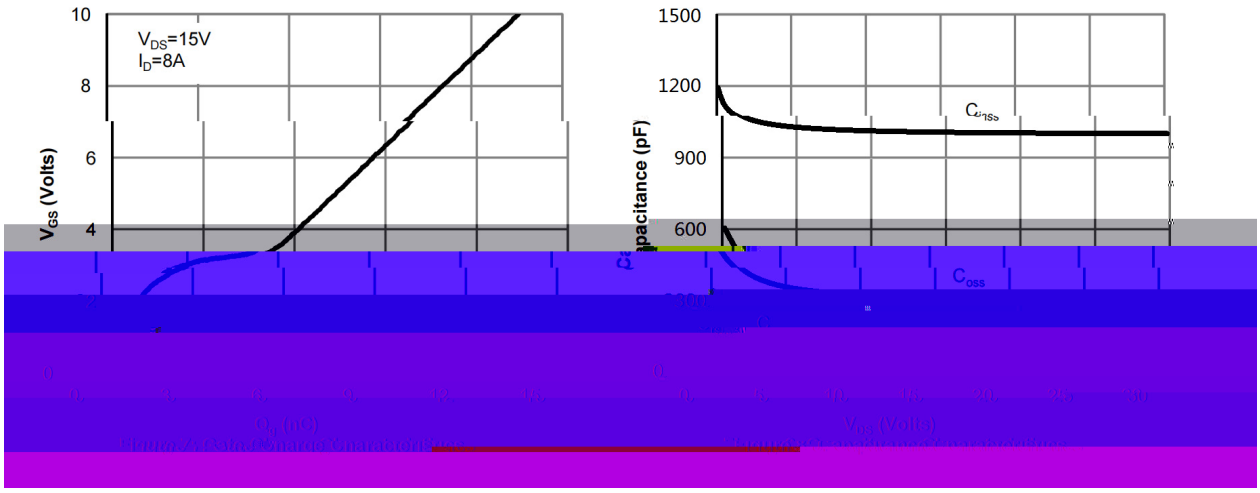
/ Electrical Characteristic Curve

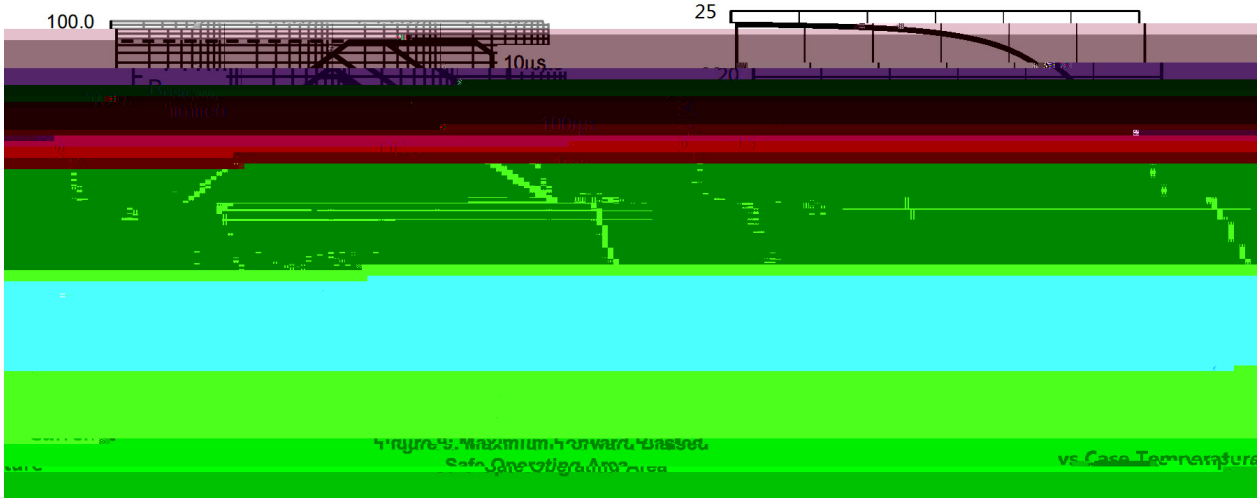


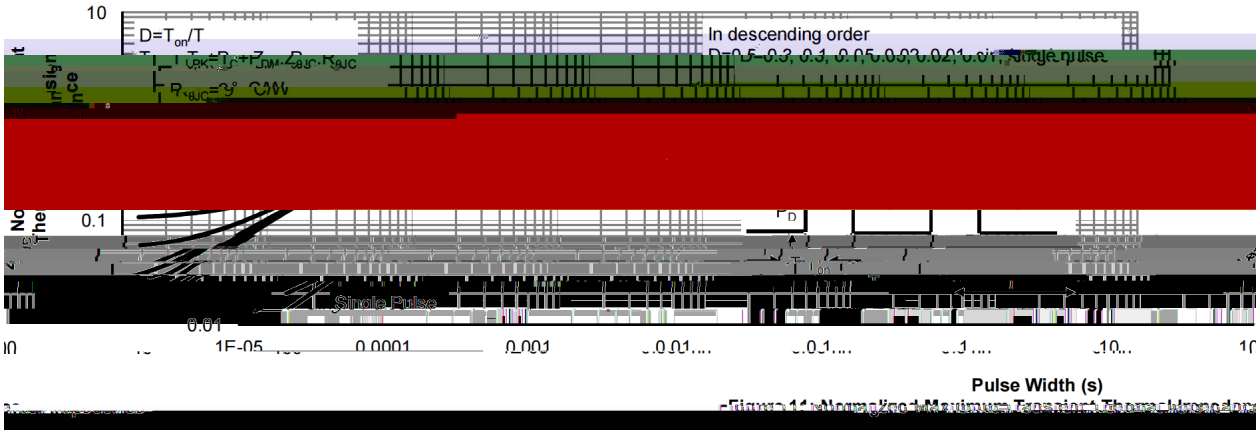




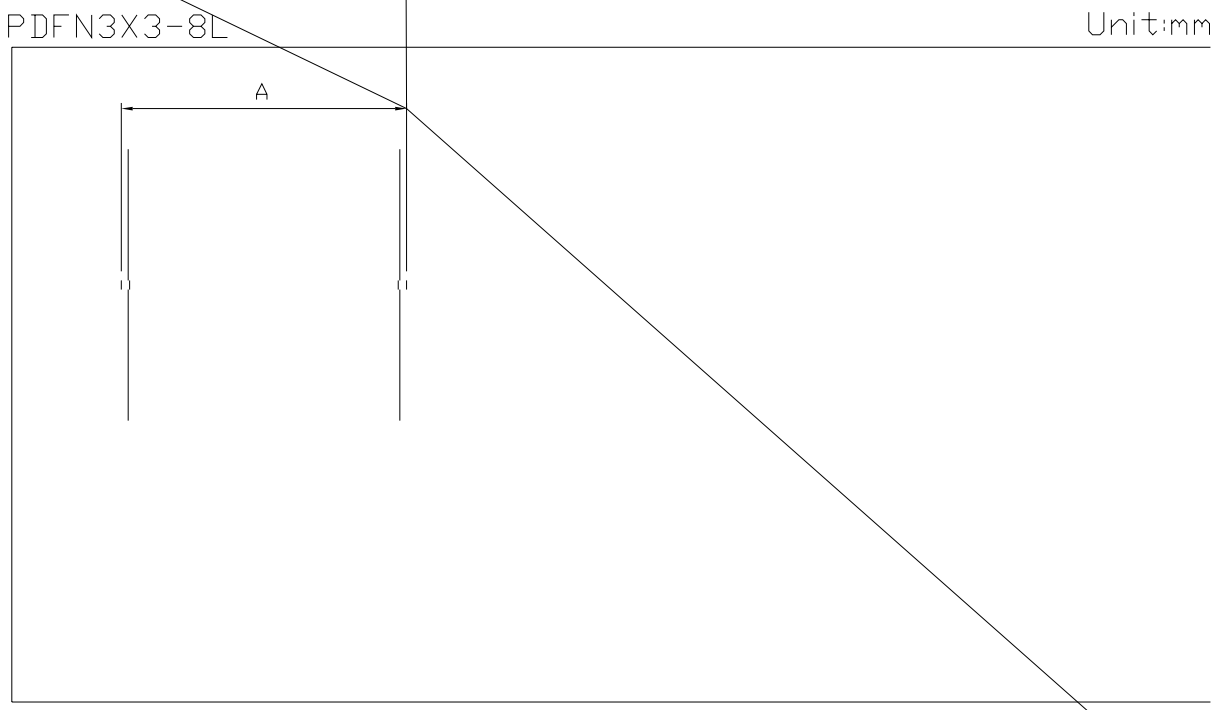
/ Electrical Characteristic Curve



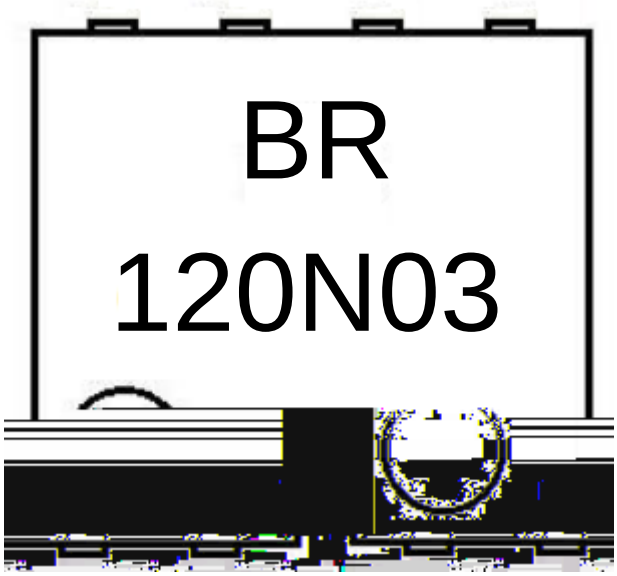




/ Package Dimensions



/ Marking Instructions



ﾂ ﾞ χ	
BR χ	ﾒﾗ ｷ ﾊ ﾃ
120N03 χ	ﾒﾗ ｺ ﾝ ﾃ
---- χ	ﾒﾗ ｲ ﾇ ﾘ ﾝ ﾃ ｲ ｾ ｲ ﾇ ﾘ ﾝ ﾏ ﾐ

Note:

BR:	Company Code
120N03:	Product Type Code
****:	Lot No. Code, code change with Lot No

( ) /

ب ˝ χ

1 Ĺ ♬ □ ỷ 150 Ḱ 180 ɬ ı `H ژ 60 Ḱ 90sec;

2 Š Ө □ ỷ 245 ° 5 ɬ ı `H ژ 'Y ʌ ʁ 5 ° 0.5sec;

3 ì ˙ ٢ ˛ ɔ ѕ ỷ ʁ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:150~180 ɬ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 260 ° 5 ɬ `H ژ χ 10 ° 1 sec. Temp.:260 ° 5 ɬ Time:10 ° 1 sec

/ Packaging SPEC.

ɔ ` ɣ Ł / REEL

Package Type	Units	Dimension	(unit mm^3)