/ Descriptions

GIQ6Ö6D0;0 ḾḾÞ Q ॐ PRV ʃ ѽ Ẓ ٦

N-Channel Enhancement Mode Field Effect Transistor in a DFN3Ö3A-8L Plastic Package.

/ Features

V_{DS} (V) = 20V I_D = 43A (V_{GS} = ± 12V)

$R_{DS(ON)}$@10V ≤ 10mƑ(Typ.8.0mƑ)

$R_{DS(ON)}$@4.5V ≤ 11mƑ(Typ.9.5mƑ)

$R_{DS(ON)}$@2.5V ≤ 16mƑ(Typ.14mƑ)

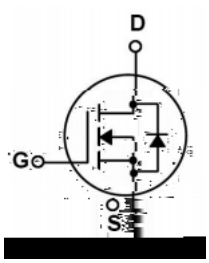
ṇ ꜰ β HF Product.

/ Applications

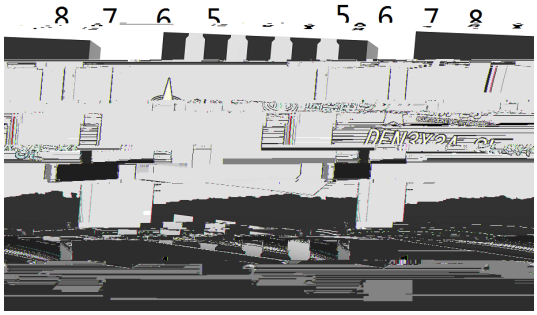
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Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	S
Pin2	S

/ Marking

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See Marking Instructions.

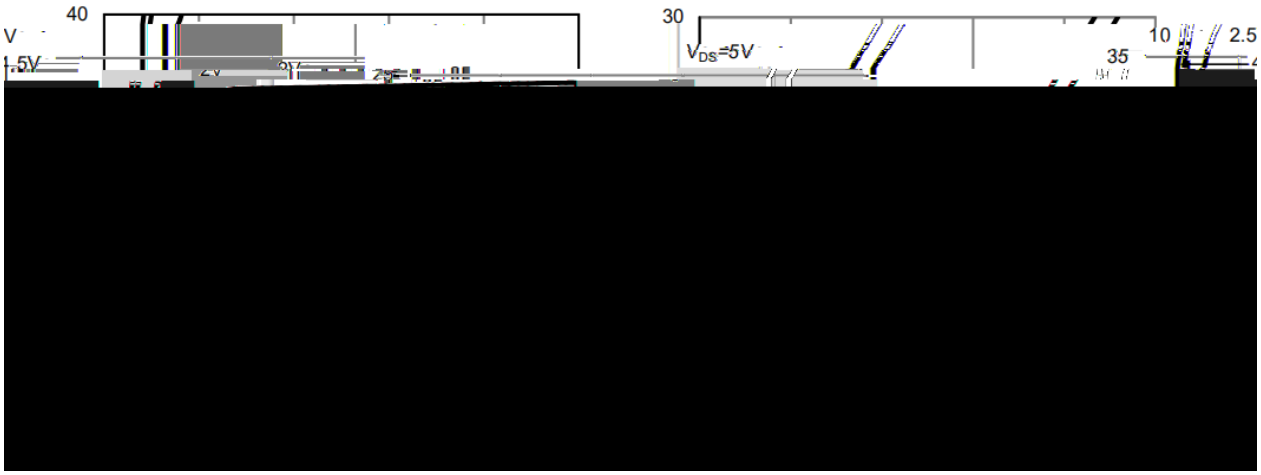
v ‴Ω Sdud p hwhu		٧ N V| p e r0	‴Ω Ë Udwlq j	D Ɥ Xqlw
Gudlq0V r xu fh Y r0d j h		Y_{GVV}	53	Y
Gudlq Fxuuhqw		L_G+Wf@58 ł ,	76	D
Gudlq Fxuuhqw 0 Sx0vhg		L_{GP}	43 :	D
Jdwh0V r xu fh Y r0d j h		Y_{JV}	° 45	Y
Dyd0dqfkh Fxuuhqw		L_{DV}	45!8	D
Vlqj0h Sx0vhg Dyd0dqfkh Hqhuj |		H_{DV}	444	p M
S r z hu Glvvlsdwlr q		S_G+Wf@58 ł ,	5 ;	Z
Mxqfwlr q Wh p shudwxuh Udq j h		W_m	483	ł
Vwrudj h Wh p shudwxuh Udq j h		W_{vwj}	088 Ḱ 483	ł
P d{l p x p	w v 43v	U0MD	83	ł 2 Z
Mxqfwlr q0w r0D p elhqw	Vwhdg|0Vwdwh		: 3	
P d{l p x p Mxqfwlr q0w r0Fdvh	Vwhdg|0Vwdwh	U0MF	7!8	ł 2 Z

v ‴Ω Parameter	٧ N Symbol	⅄ ;ᛏ ᛉ Test Conditions	ѡ ṇ Ë Min	Ɛ ʒ Ë Typ	ѡ ᶻ Ë Max	D Ɥ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μ				

/ Electrical Characteristics(Ta=25)

v ˝Ọ Parameter	ϒ N Symbol	╜ ;ˆ ţ Test Conditions	ѡ ṇ Ө Min	Ɛ ʒ Ө Typ	ѡ ᶻ Ө Max	ᴅ Ꮋ Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=10V V_{GS}=10V R_L=1.0Ω R_{GEN}=3.0Ω		2.5		ns
Turn-On Rise Time	t_r			7.2		
Turn-Off Delay Time	$t_{d(off)}$			49		
Turn-Off Fall Time	t_f			10.8		
Total Gate Charge	$Q_{g(4.5V)}$	V_{DS}=10V V_{GS}=4.5V I_D=12.0A		17.9		nC
Gate-Source Charge	Q_{gs}			1.5		
Gate-Drain Charge	Q_{gd}			4.7		

/ Electrical Characteristic Curve



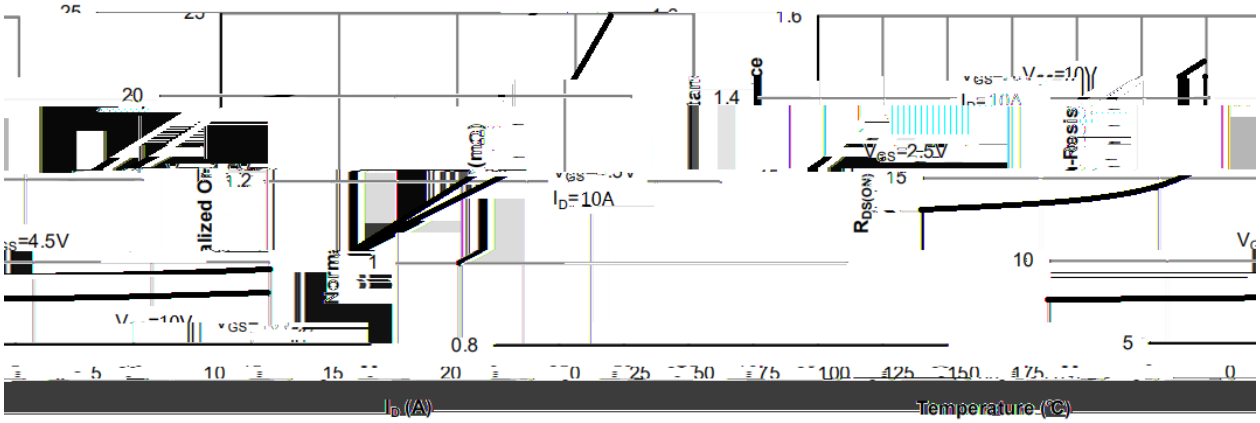
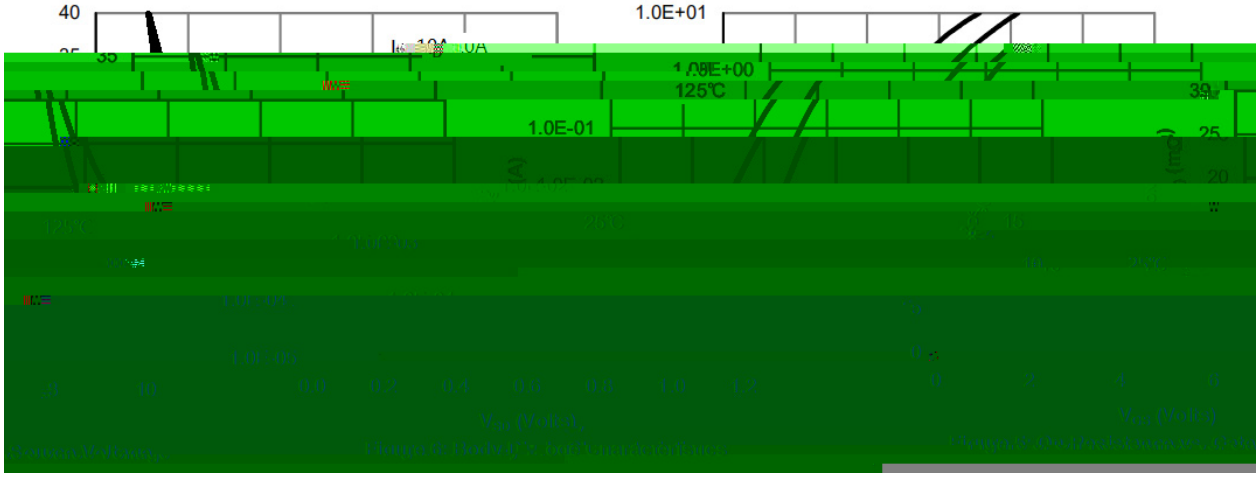


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature



/ Electrical Characteristic Curve

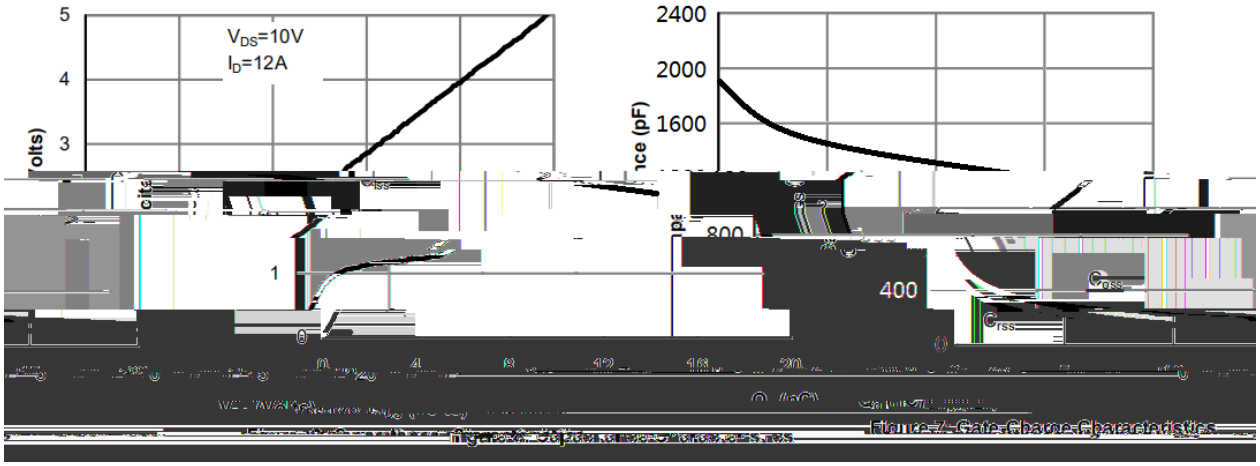


Figure 7: Gate-Charge Characteristics

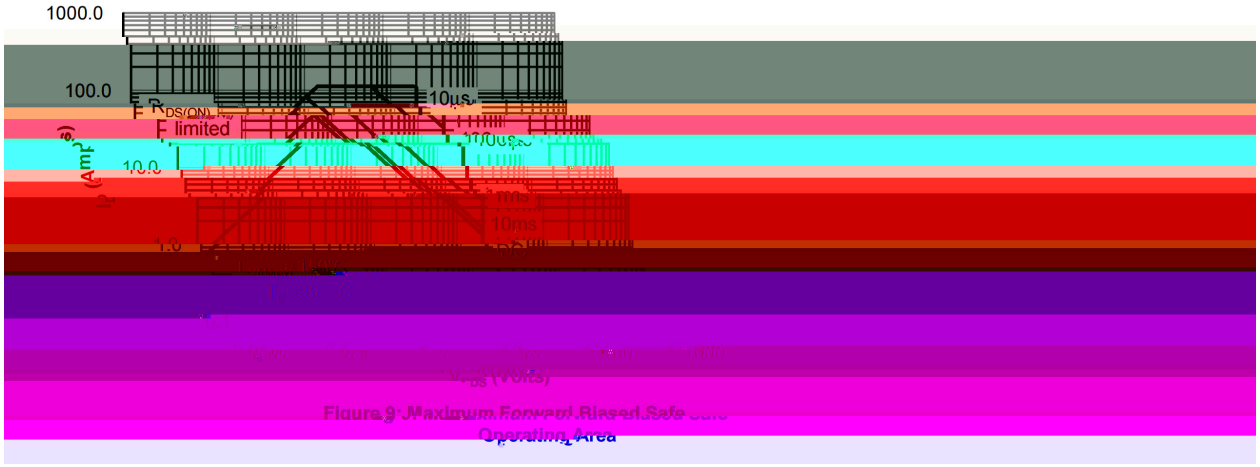
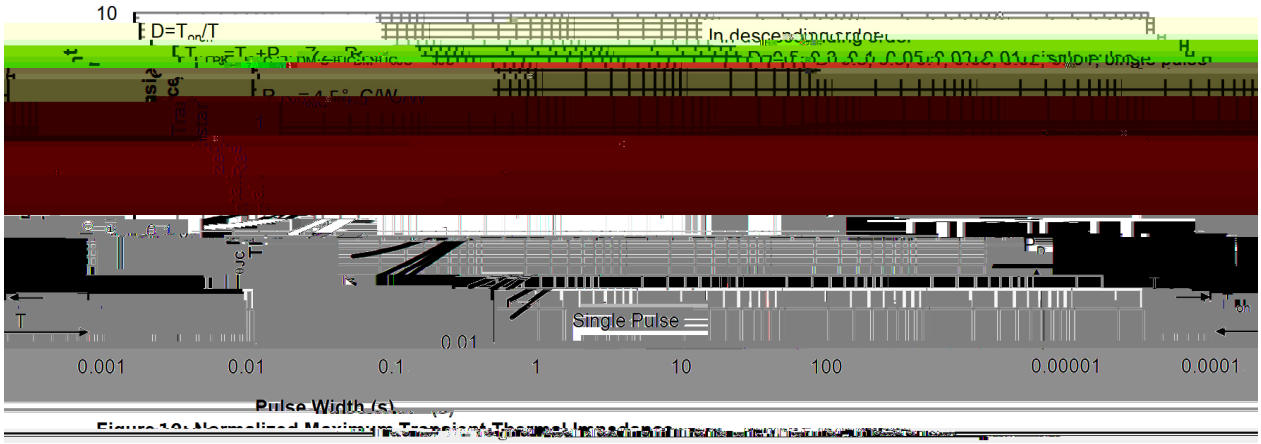


Figure 9: Maximum Forward Biased Safe Operating Area



/ Package Dimensions



/ Marking Instructions

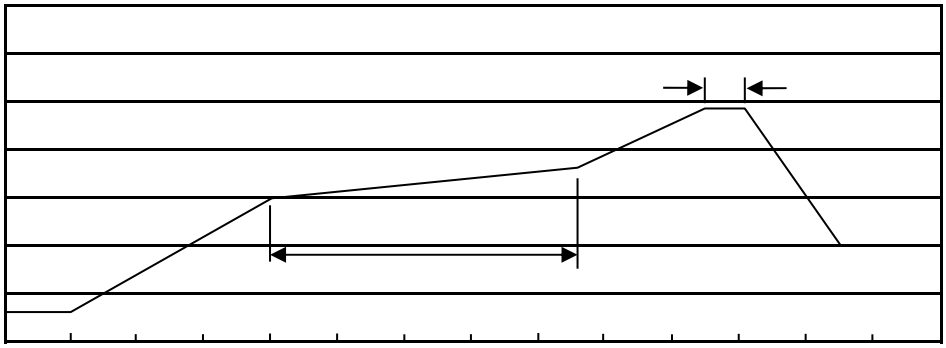


BR	
080N02	
****	

Note:

BR:	Company Code
080N02:	Product Type Code
****:	Lot No. Code, code change with Lot No

( ) /



ب ˝ χ

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

2 Š Ë □ ỷ 245 ° 5 ɬ ı `H ڑ `Y ʌ ʁ 5 ° 0.5sec;

3 ì ˙ ϒ ˛ 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 ڑ χ 10 ° 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

ɔ ` ɣ Ł / REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
DFN3×3A-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

/ Notices