

/ Descriptions

PDFN5 6 N

N-Channel MOSFET in a PDFN5×6 Plastic Package.

/ Features

 $V_{DS}(V)=500V$ $I_D=1.7A$ $R_{DS(ON)}@10V \leq 3.5\Omega$ (Typ. 2.8Ω)

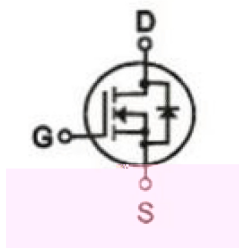
Fast Switching.

HF Product.

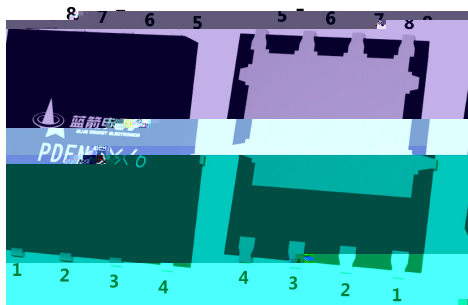
/ Applications

These devices are well suited for power switch circuit of adaptor and charger, intergrate fast recovery diode.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	500	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	1.7	A
Drain Current - Pulsed	I_{DM}	5.5	A
Gate-Source Voltage	V_{GS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	112.5	mJ
Avalanche Current	I		

Electrical Characteristic Curve

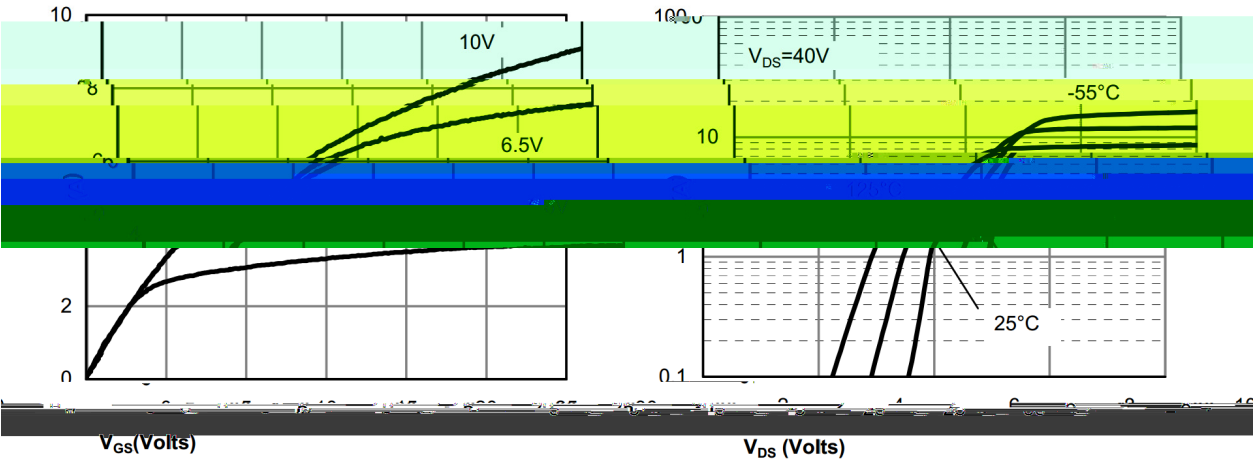


Figure 2: Transfer Characteristics Figure 1: On-Region Characteristics

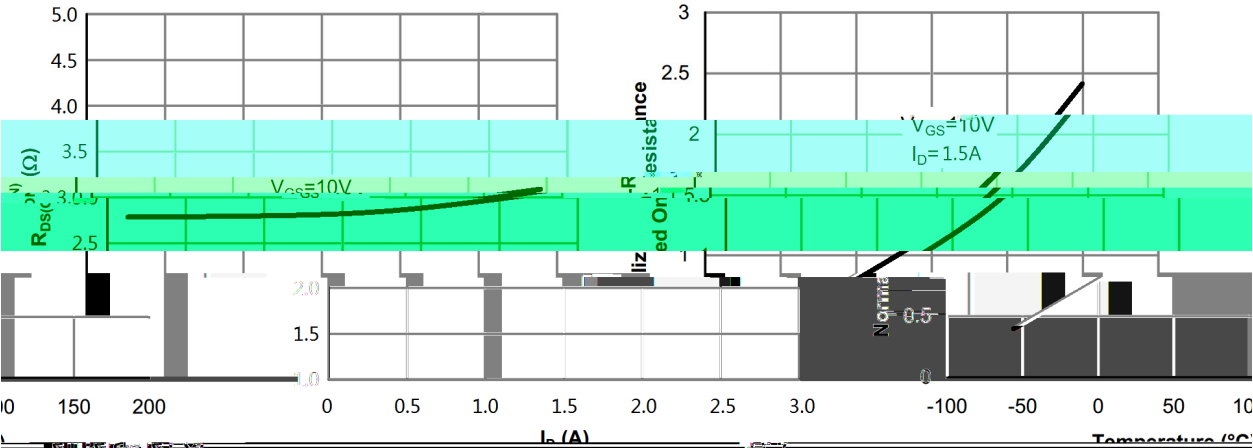
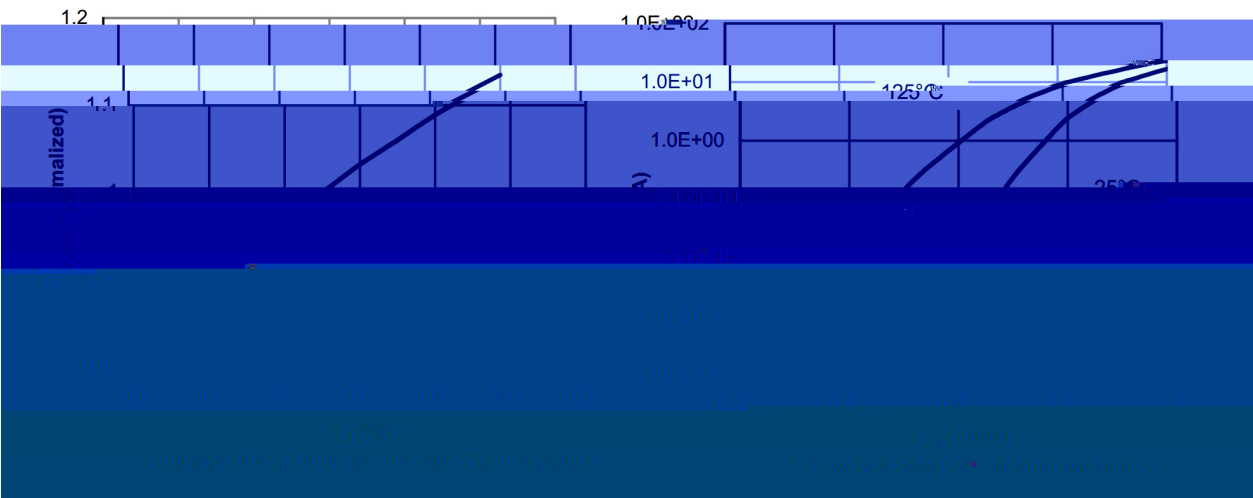


Figure 3: On-Resistance vs. Drain Current and Temperature



/ Electrical Characteristic Curve

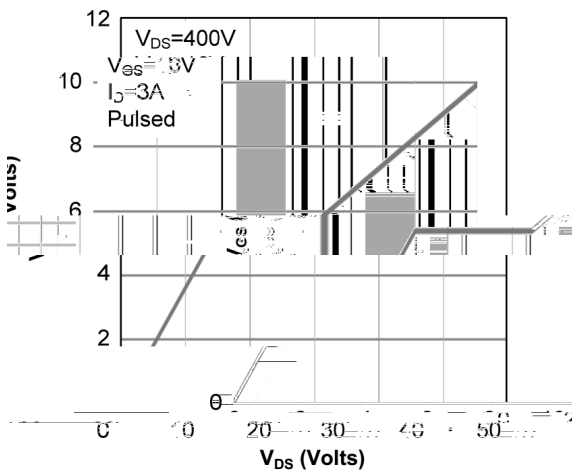
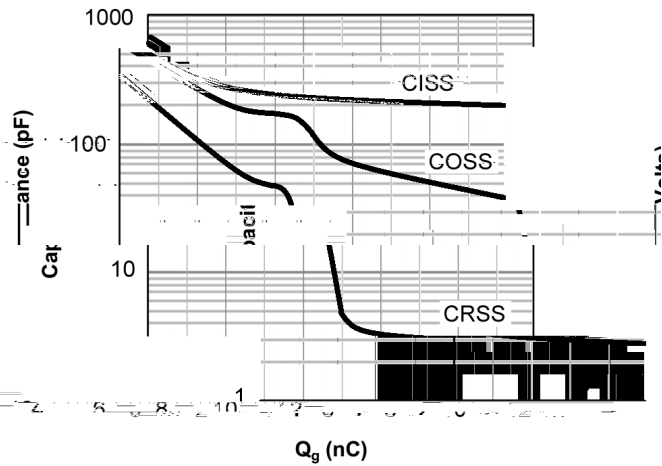


Figure 8: Capacitance Characteristics



■ Figure A: Gate-C charge characteristics

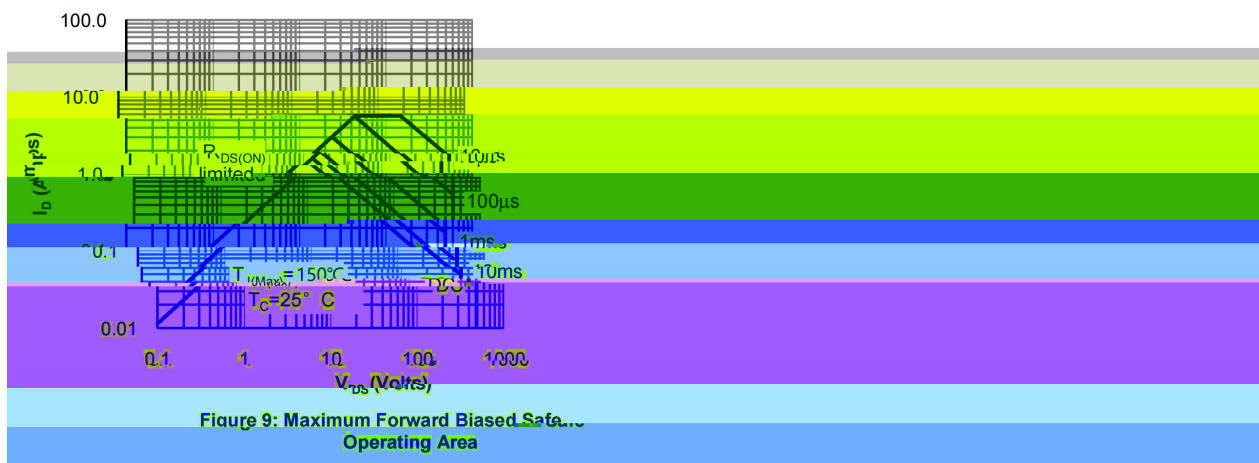


Figure 9: Maximum Forward Biased Safe Operating Area

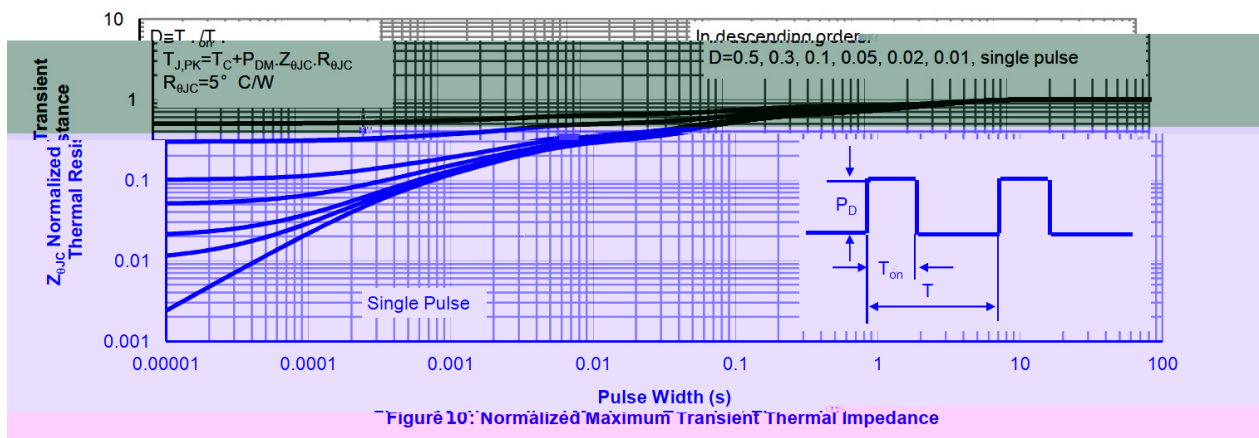
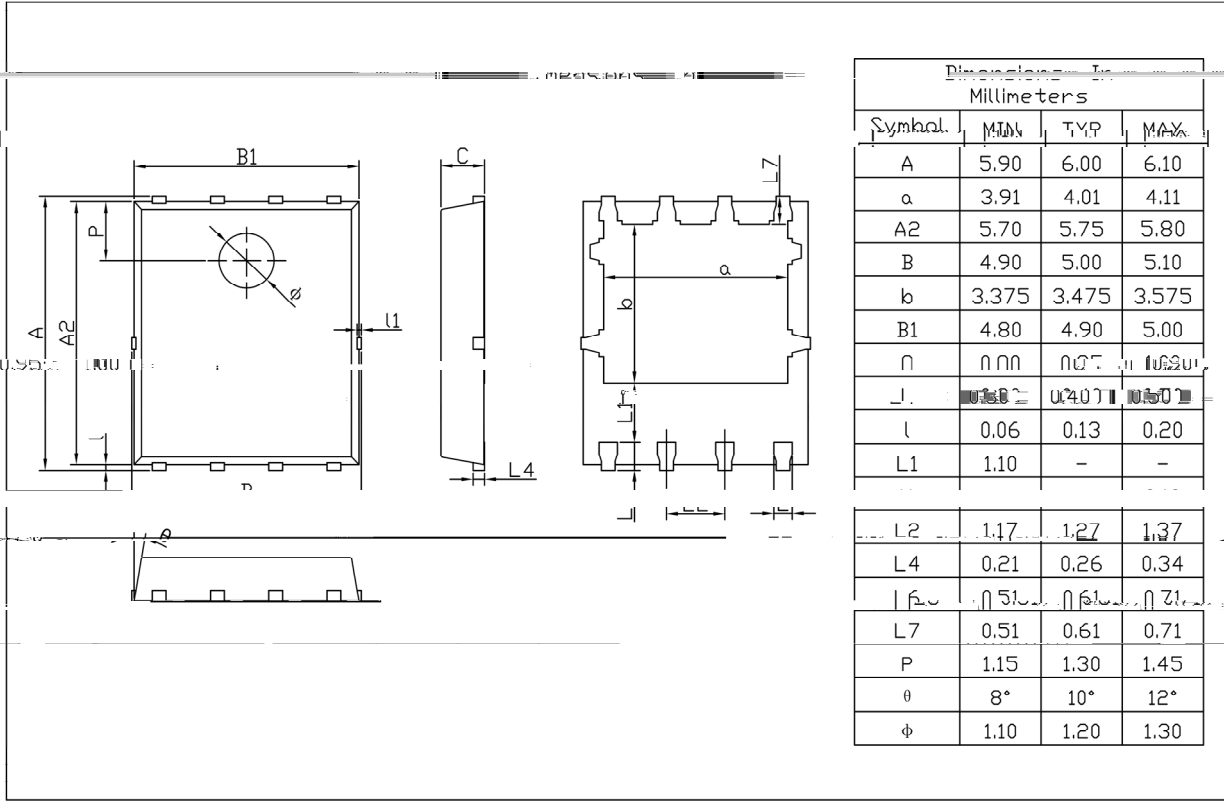


Figure 10: Normalized Maximum Transient Thermal Impedance

I Package Dimensions

PDFN5 X6

Unit:mm



Rev.01 202209

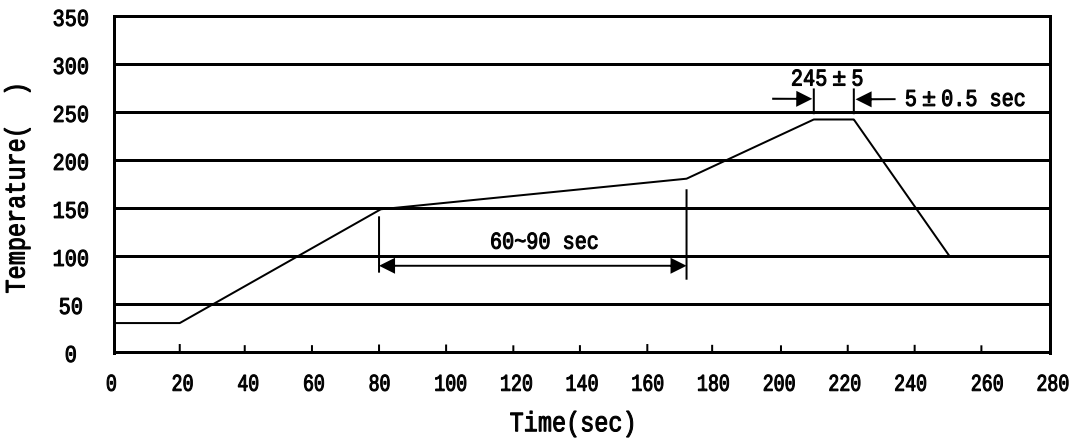
/ Marking Instructions



3N50AF

Note	
BR	Company Code
3N50AF	Product Type Code
****	Lot No. Code, code change with Lot No

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 °C , Time:60~90sec.
- 2

245 5

5 0.5sec;

2.Peak Temp.:245 ± 5 °C , Duration:5 ± 0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

260 ± 5 °C 10 ± 1 sec. Temp.:260±5 °C Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
PDFN5×6	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366

/ Notices