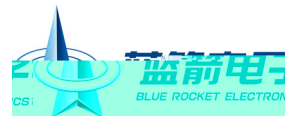


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DATA SHEET

/ Descriptions

PDFN5×6A N

Dual N-CHANNEL MOSFET in a PDFN5×6A Plastic Package .

/ Features

V_{DS} (V) =100V I_D =30A ($V_{GS} = \pm 20V$)

$R_{DS(ON)}$ @10V 25mR(Typ.20mR)

$R_{DS(ON)}$ @4.5V 35mR(Typ.25mR)

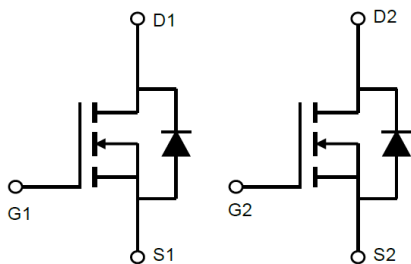
HF Product.

/ Applications

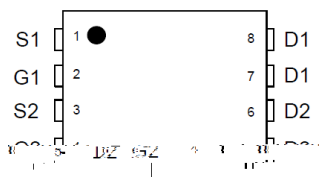
DC/DC

DC/DC Converter, Ideal for high-frequency switching and synchronous rectification.

/ Equivalent Circuit



/ Pinning

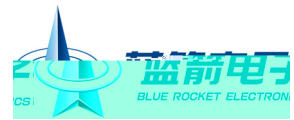


/ Marking

See Marking Instructions.

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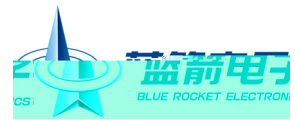
DATA SHEET

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	30	A
Drain Current - Pulsed		I_{DM}	113	A
Gate-Source Voltage		V_{GS}	± 20	V
Avalanche Current		I_{AS}	7	A
Single Pulsed Avalanche Energy		E_{AS}	24.5	mJ
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	45	W
Storage Temperature Range		T_{stg}	-55 ~ 150	
Thermal Resistance-Junction to Ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	40	/W
	Steady-State		63	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	2.78	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0\text{V}$ $I_D=250\text{ }\mu\text{A}$	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100\text{V}$ $V_{GS}=0\text{V}$			1	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20\text{V}$ $V_{DS}=0\text{V}$			± 0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\text{ }\mu\text{A}$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}$ $I_D=20\text{A}$		20	25	m Ω
		$V_{GS}=4.5\text{V}$ $I_D=10\text{A}$		25	35	m Ω
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0\text{V}$ $I_S=1\text{A}$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}$ $V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		820		pF

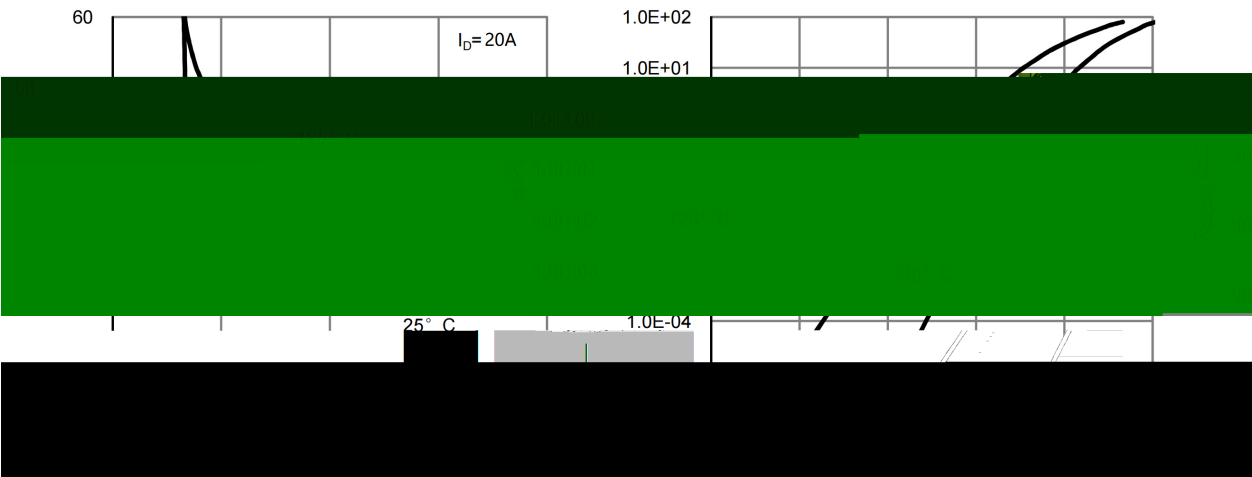
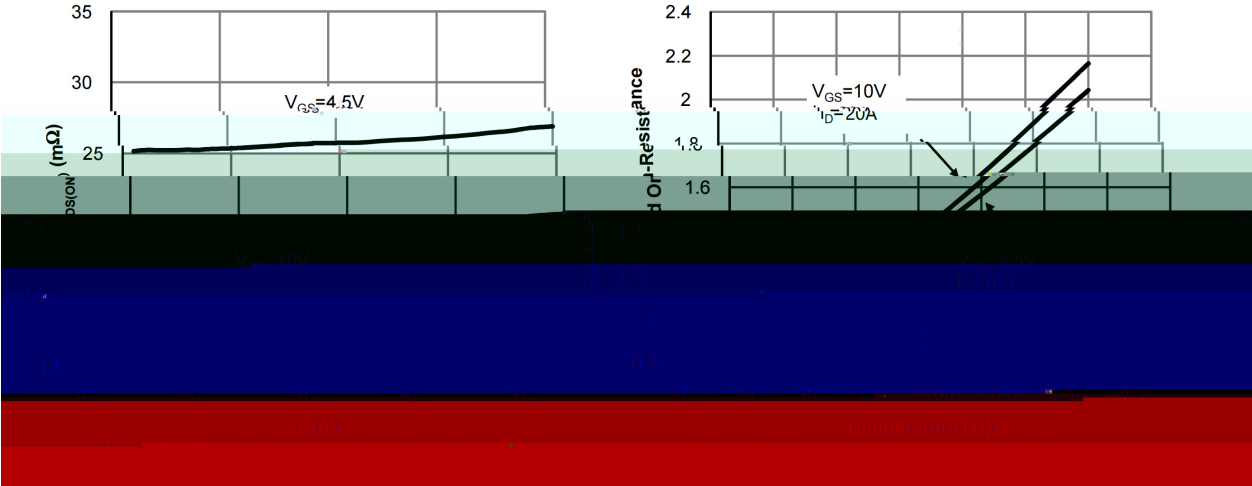
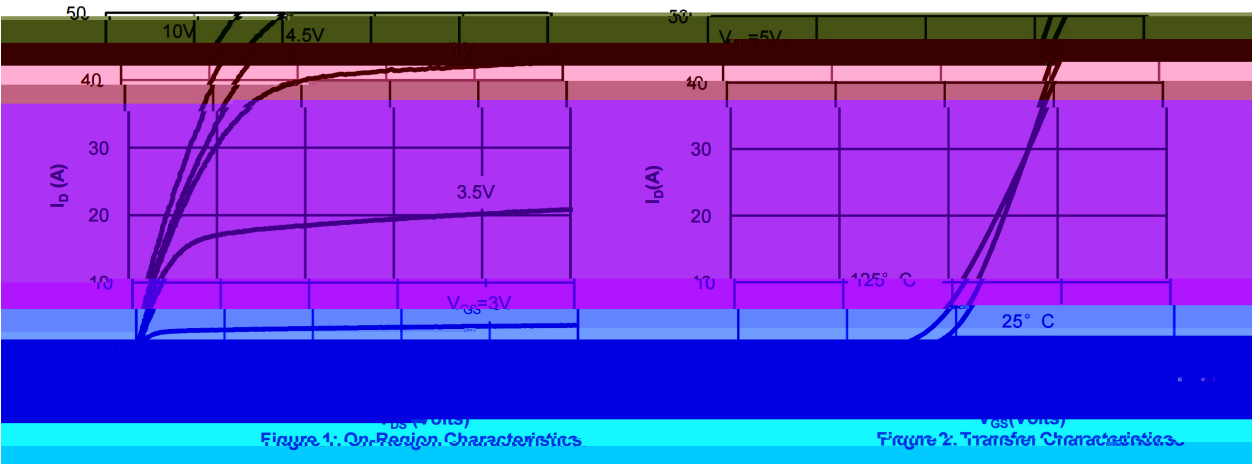
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DATA SHEET

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

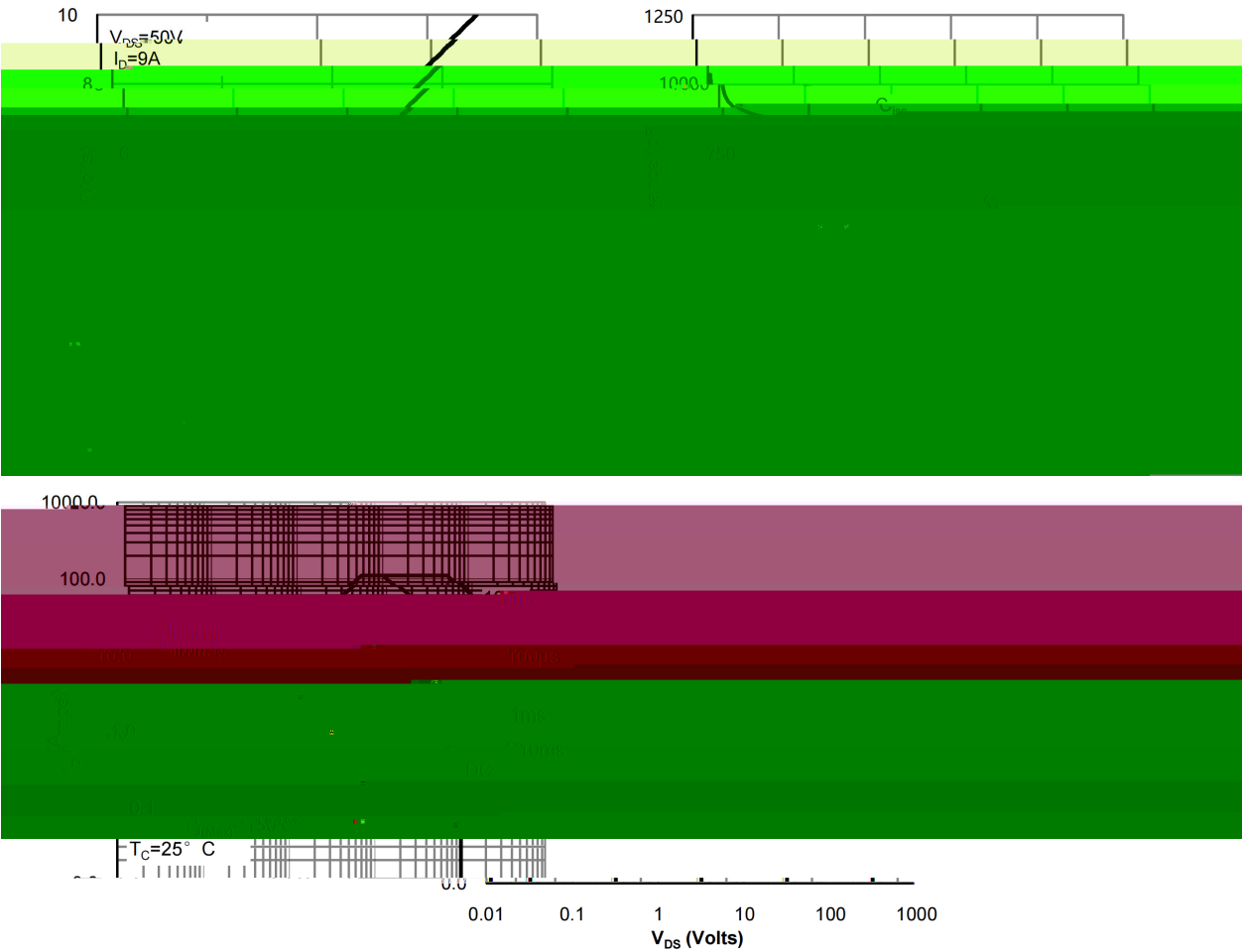


Figure 9: Maximum Forward Bias Safe Operating Area

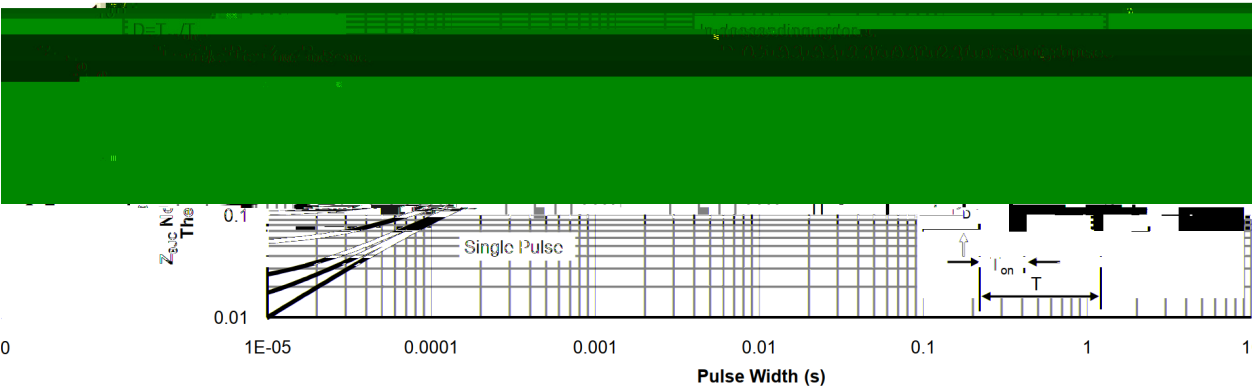


Figure 10: Normalized Maximum Transient Thermal Impedance

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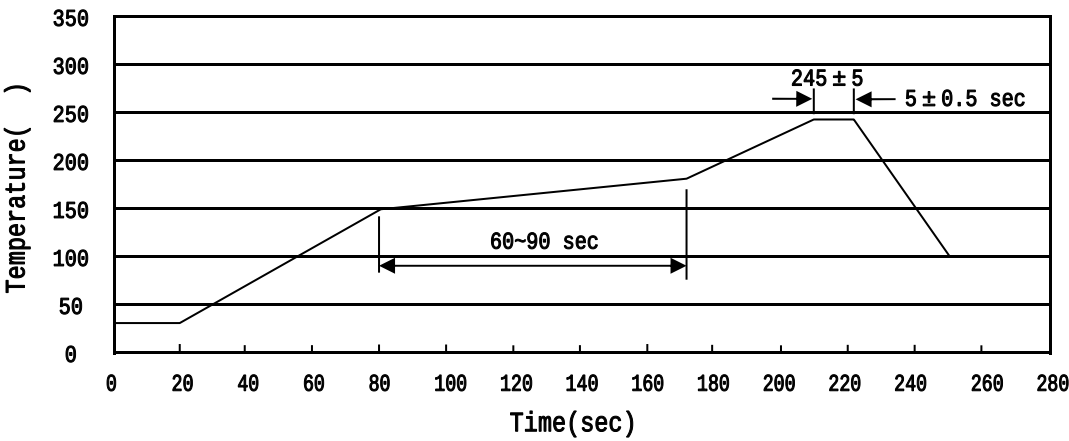
/ Marking Instructions



BR	
250N10S	

Note	
BR	Company Code
250N10S	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 , Time:60~90sec.
- 2

245±5

5±0.5sec;

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

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 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
PDFN5×6A	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366

/ Notices