

描述 / Descriptions

PDFN 3×3A-8L 塑封封装 N 沟道 MOS 场效应管。

N-Channel Enhancement Mode Field Effect Transistor in a PDFN 3×3A-8L Plastic Package.

特征 / Features

$V_{DS} (V) = 100V$ $I_D = 9.0A$ ($V_{GS} = \pm 20V$)

$R_{DS(ON)} @ 10V \leq 125m\Omega$ (Typ. 112mΩ)

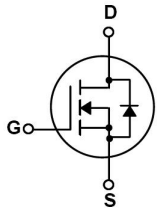
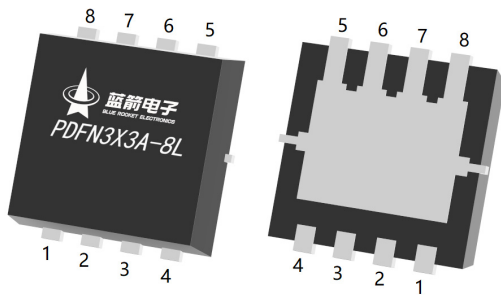
$R_{DS(ON)} @ 4.5V \leq 230m\Omega$ (Typ. 155mΩ)

无卤产品。HF Product.

用途 / Applications

DC/DC 和 AC/DC 转换器中的同步整流，电信和工业中的隔离 DC/DC 转换器。

Synchronous rectification in DC/DC and AC/DC converters, Isolated DC/DC Converters in Telecom and Industrial.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

出脚	定义
Pin1	S
Pin2	S
Pin3	S
Pin4	G
Pin5	D
Pin6	D
Pin7	D
Pin8	D

印章代码 / Marking

见印章说明。See Marking Instructions.

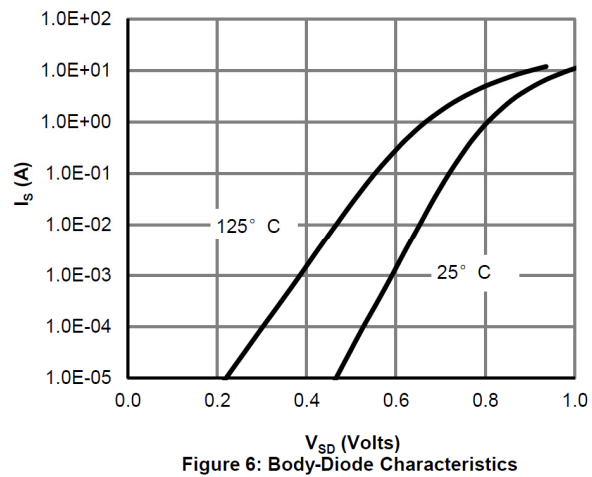
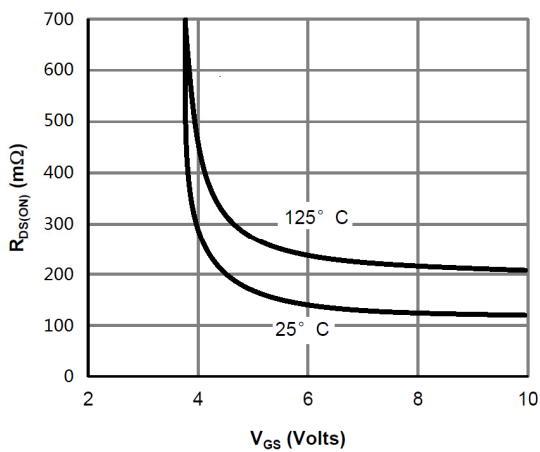
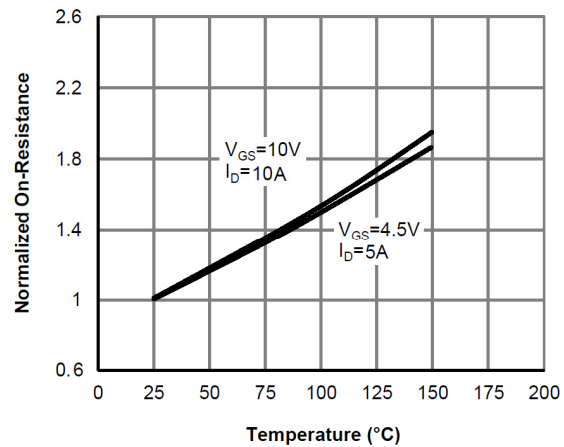
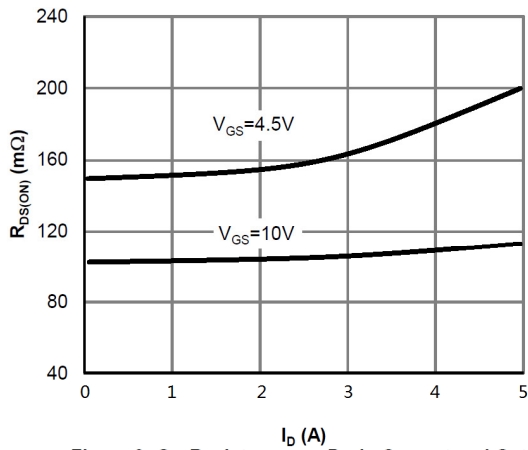
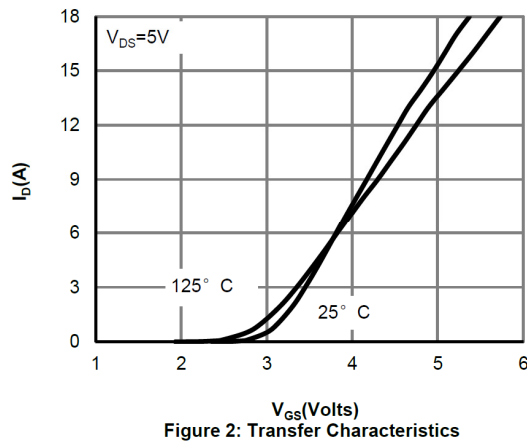
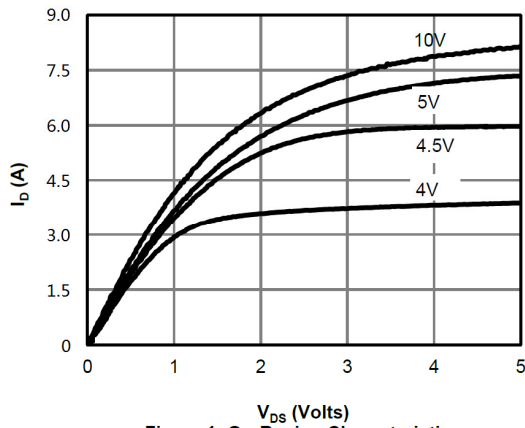
极限参数 / Absolute Maximum Ratings($T_c=25^{\circ}\text{C}$)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current	$I_D(T_c=25^{\circ}\text{C})$	9.0	A
Drain Current - Pulsed	I_{DM}	25	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(T_c=25^{\circ}\text{C})$	20	W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^{\circ}\text{C}$
Junction-to-Case	$R_{\theta JC}$	6.25	$^{\circ}\text{C/W}$

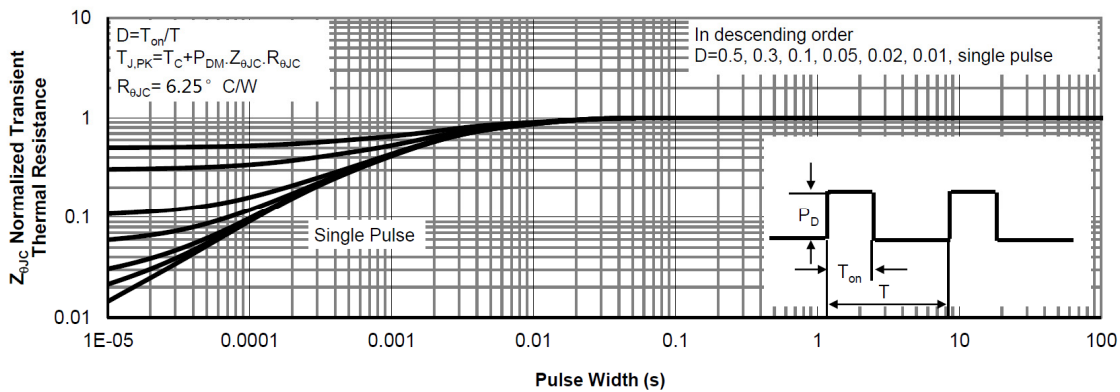
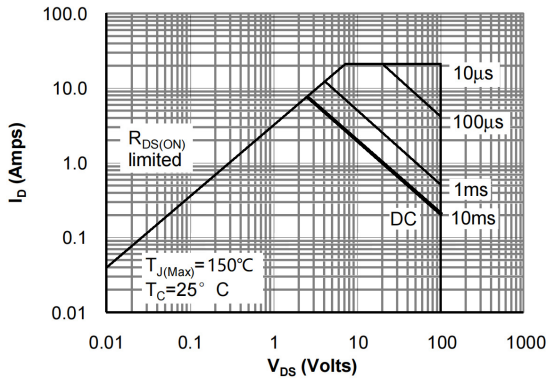
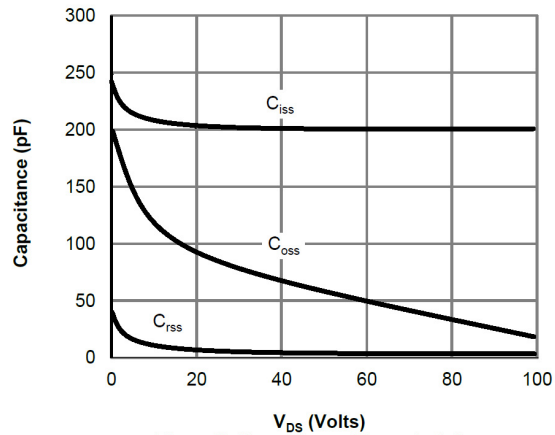
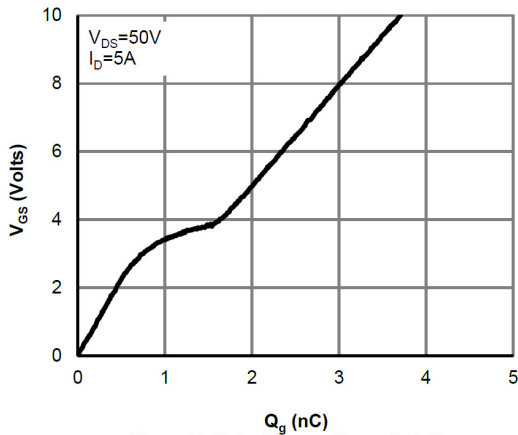
电性能参数 / Electrical Characteristics($T_c=25^{\circ}\text{C}$)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.6	3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=5A$		112	125	$m\Omega$
		$V_{GS}=4.5V$ $I_D=2A$		155	230	$m\Omega$
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.2	V
Reverse Recovery Time	t_{rr}	$I_{SD}=3A$, $dI_{SD}/dt=100A/\mu s$		27		ns
Reverse Recovery Charge	Q_{rr}			35		nC
Input Capacitance	C_{iss}	$V_{DS}=50V$ $V_{GS}=0V$ $f=1.0MHz$		165		pF
Output Capacitance	C_{oss}			55		
Reverse Transfer Capacitance	C_{rss}			7.5		
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$ $f=1MHz$		2.5		Ω
Total Gate Charge	Q_g	$V_{GS}=10V$ $V_{DS}=50V$ $I_D=3A$		3.3		nC
Gate Source Charge	Q_{gs}			0.35		
Gate Drain Charge	Q_{gd}			0.87		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=50V$ $I_D=3A$ $R_G=2\Omega$		13.2		ns
Turn-On Rise Time	t_r			2.2		
Turn-Off Delay Time	$t_{d(off)}$			11		
Turn-Off Fall Time	t_f			1.1		

电参数曲线图 / Electrical Characteristic Curve



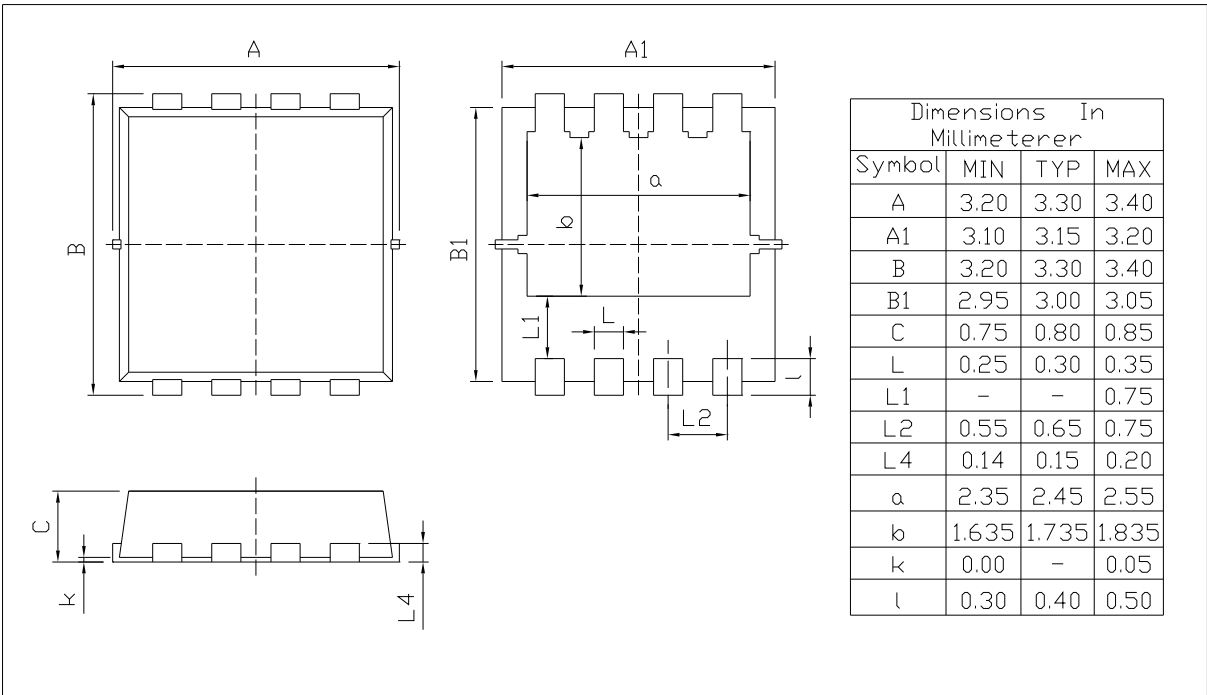
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

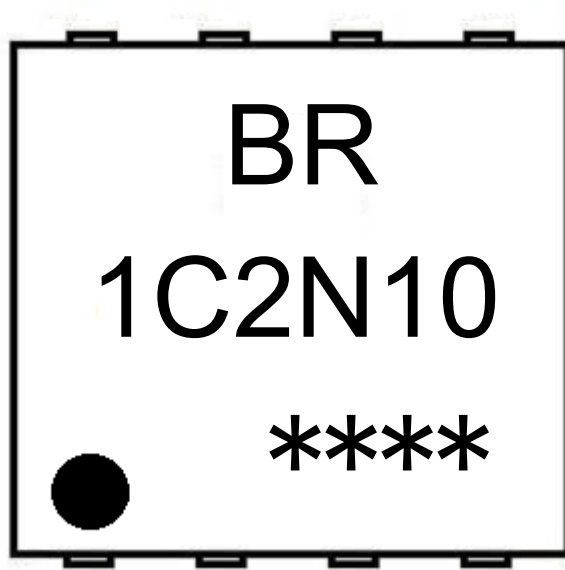
PDFN3X3A-8L

Unit:mm



Rev.00 202011

印章说明 / Marking Instructions



说明：

BR： 为公司代码

1C2N10： 为型号代码

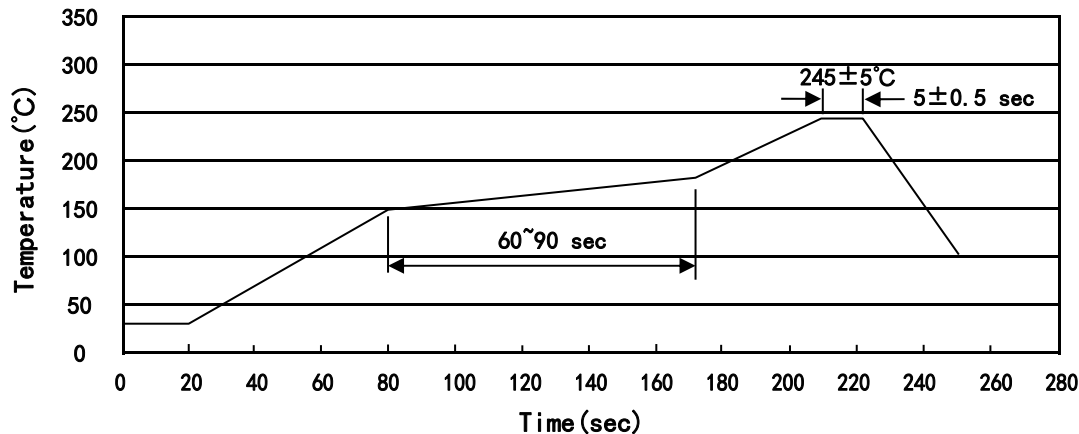
****： 为生产批号代码，随生产批号变化

Note:

BR: Company Code

1C2N10: Product Type Code

****: Lot No. Code, code change with Lot No.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)


说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
PDFN 3×3A-8L	5,000	2	10,000	6	60,000	13" ×12	360×360×50	380×335×366

使用说明 / Notices

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