

/ Descriptions

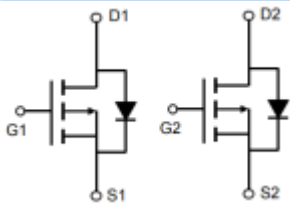
/ Features

$V_{DS}=-20V$ $I_D=-22.8A$
 $R_{DS(ON)}@-4.5V$ 22m (Type.20m)
 $R_{DS(ON)}@-2.5V$ 30m (Type.26m)
 $R_{DS(ON)}@-1.8V$ 100m (Type.35m)
HF Product.

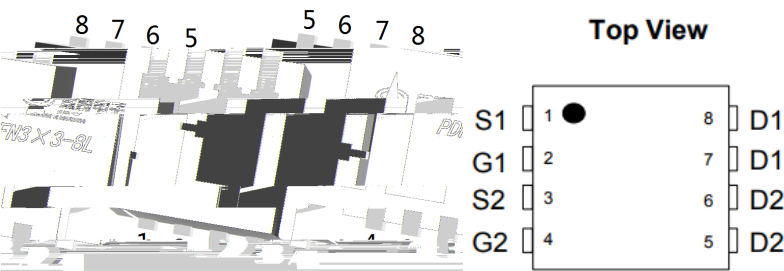
/ Applications

Protection Circuits Applications,Logic/Load Switch Circuits Applications.

/ Equivalent Circuit



/ Pinning



/ Marking

See Marking Instructions.

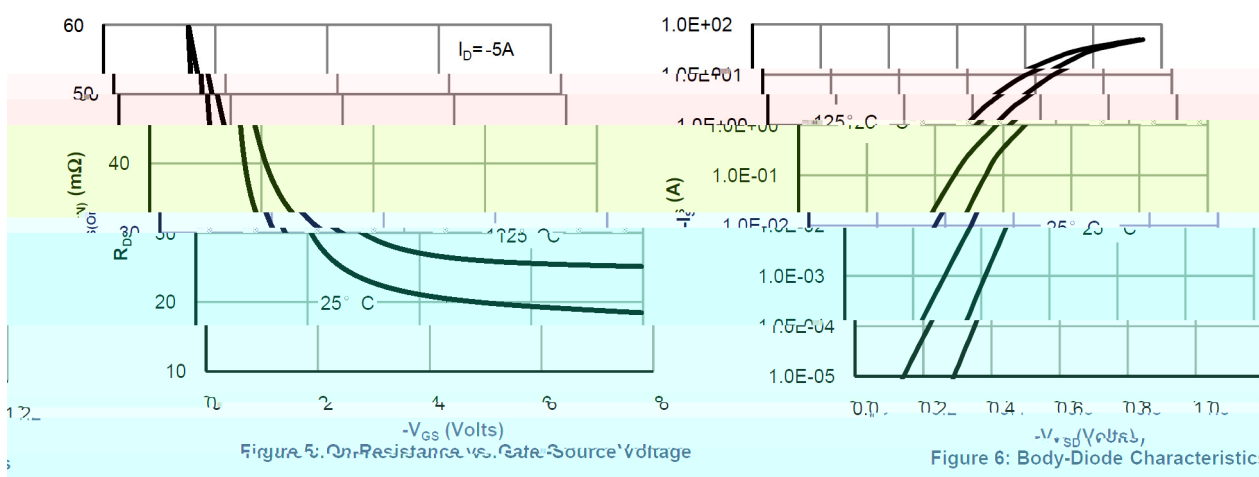
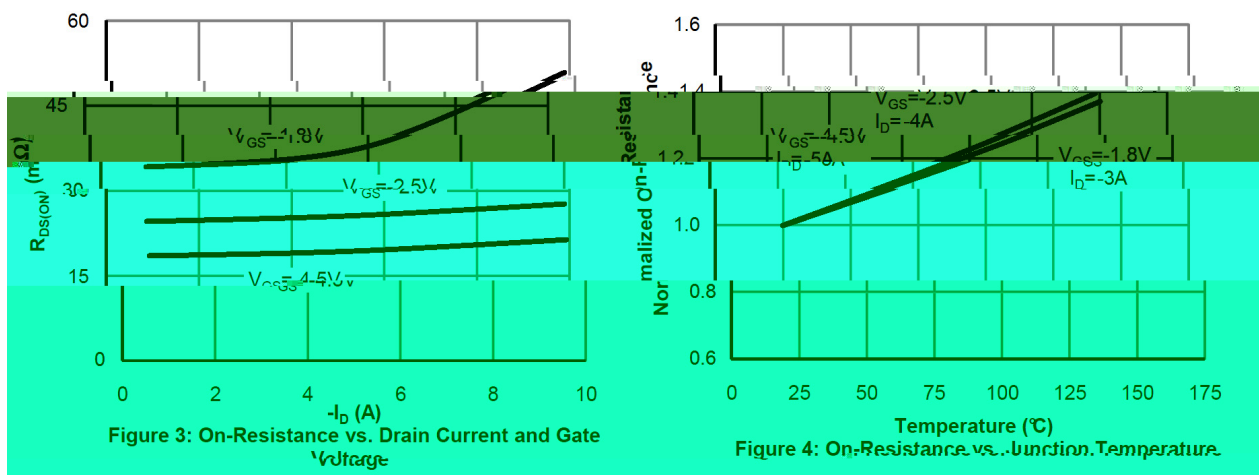
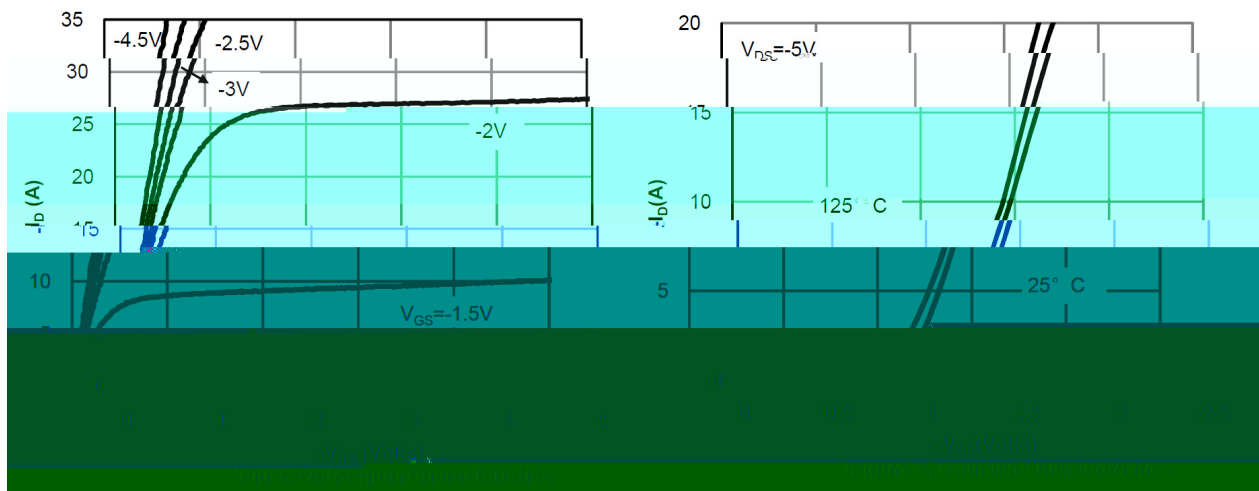
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	$I_D(T_c=25)$	-22.8	A
Pulsed Drain Current	I_{DM}	-37.5	A
Power Dissipation	$P_D(T_c=25)$	16	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	
Maximum Junction-to-Ambient	$R_{JA}(\text{Steady-State})$	65	/W
Maximum Junction-to-Case	$R_{JC}(\text{Steady-State})$	7.8	/W

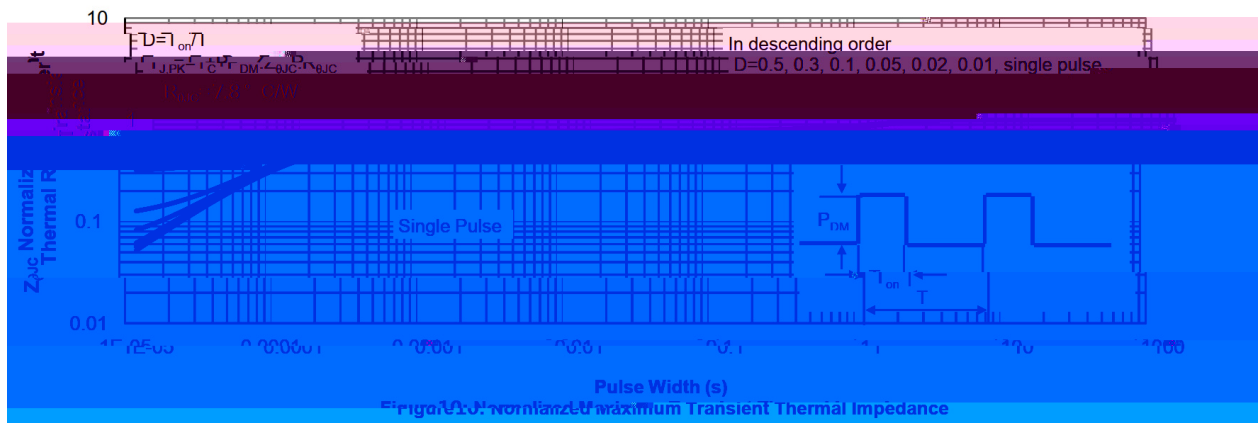
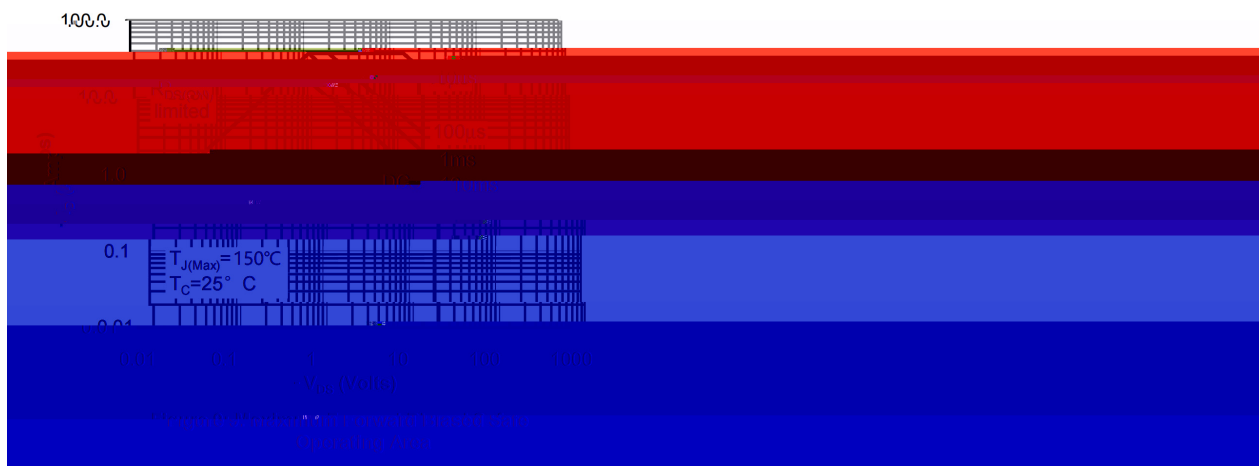
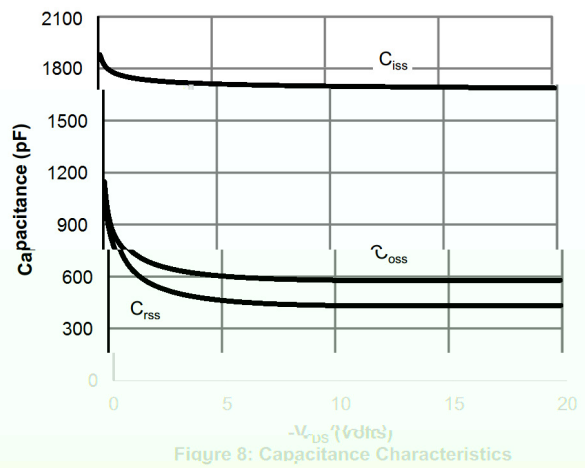
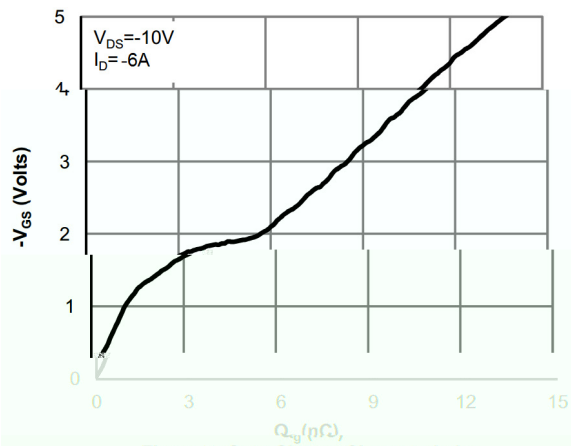
/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$I_D=-250$ A $V_{GS}=0V$	-20	-22.5		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-20V$ $V_{GS}=0V$			-1.0	A
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250$ A	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-4.5V$ $I_D=-5A$		20	22	m Ω
		$V_{GS}=-2.5V$ $I_D=-4A$		26	30	
		$V_{GS}=-1.8V$ $I_D=-3A$		35	100	
Diode Forward Voltage	V_{SD}	$I_S=-1A$ $V_{GS}=0V$			-1.2	V
Gate resistance	R_g	$V_{GS}=0V$, $f=1MHz$ $V_{DS}=0V$,		11		Ω
Input Capacitance	C_{iss}	$V_{GS}=0V$ $V_{DS}=-5V$ $f=1MHz$		1700		pF
Output Capacitance	C_{oss}			600		
Reverse Transfer Capacitance	C_{rss}			450		
Total Gate Charge	Q_g	$V_{GS}=-4.5V$, $V_{DS}=-10V$, $I_D=-6A$		13		nC
Gate Source Charge	Q_{gs}			2.5		
Gate Drain Charge	Q_{gd}			4.2		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V$ $R_L=1.25$ $V_{DS}=-10V$ $R_{GEN}=3$		7.5		ns
Turn-On Rise Time	t_r			29.2		
Turn-Off Delay Time	$t_{d(off)}$			103		
Turn-Off Fall Time	t_f			50		

/ Electrical Characteristic Curve



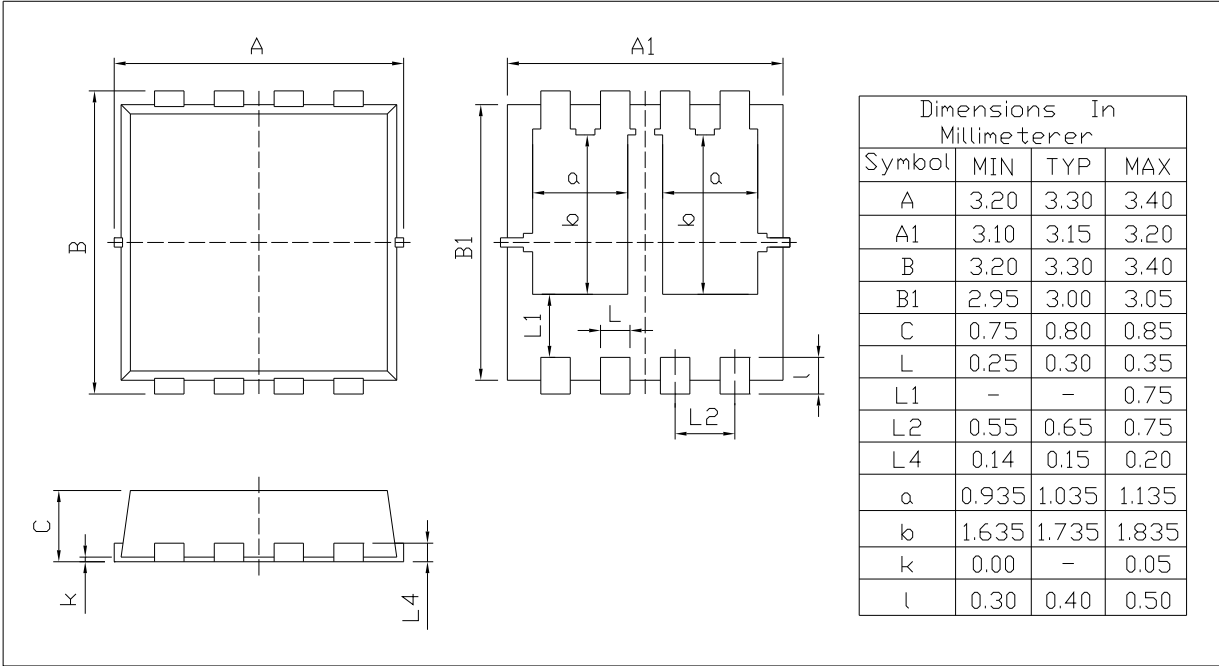
/ Electrical Characteristic Curve



/ Package Dimensions

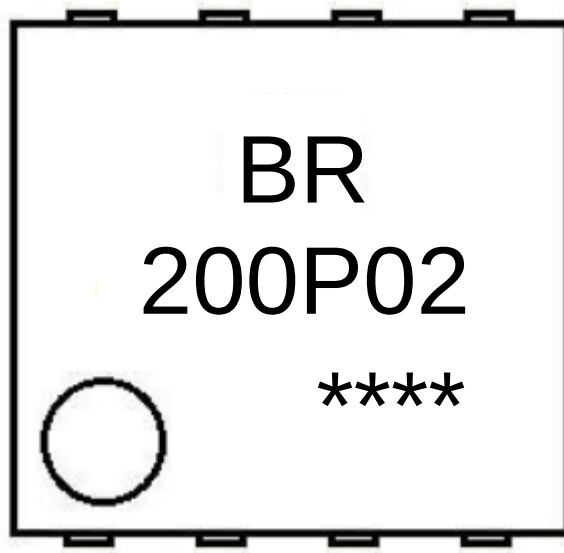
PDFN3X3-8L

Unit:mm



Rev.00 202011

/ Marking Instructions



BR

200P02

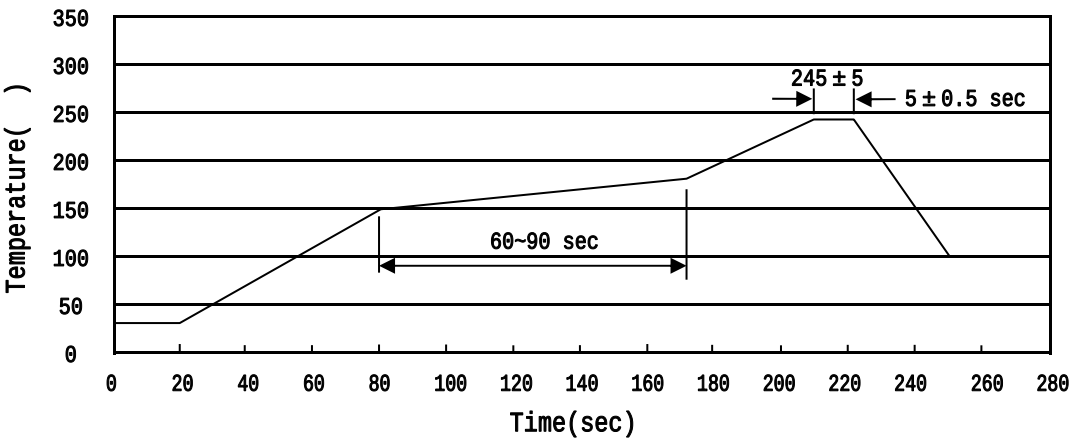
Note:

BR: Company Code

200P02: 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
PDFN3×3-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

/ Notices