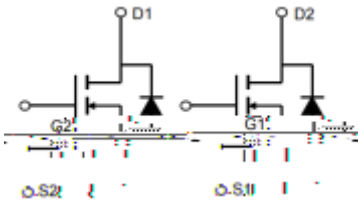
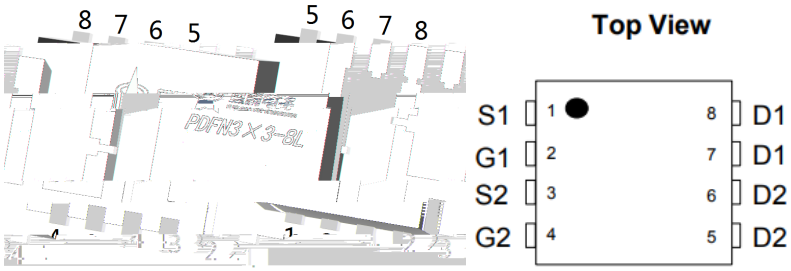
PDFN3×3-8L N MOS
Double N-CHANNEL MOSFET in a PDFN3×3-8L Plastic Package.

V_{DS}=40V I_D=19A
$R_{DS(ON)}$@10V<20mΩ(Typ.18mR)
$R_{DS(ON)}$@4.5V<35mΩ(Typ.24mR)
HF Product.

DC/DC
Synchronous Rectification,DC/DC Converter.





See Marking Instructions.

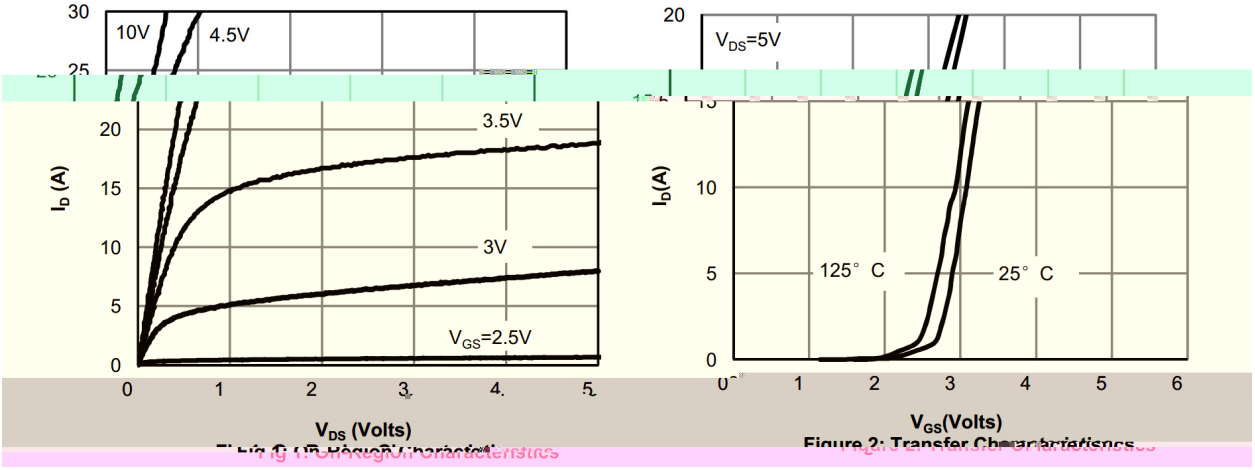
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	40	V
Drain Current		I_D(Tc=25)	19	A
Drain Current - Pulsed		I_{DM}	38	A
Gate-Source Voltage		V_{GS}	±20	V
Power Dissipation		P_D(Tc=25)	12	W
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to 150	
Junction-to-Ambient	Steady-State	$R_{\theta JA}$	95	/W
Junction-to-Case	Steady-State	$R_{\theta JC}$	10.4	

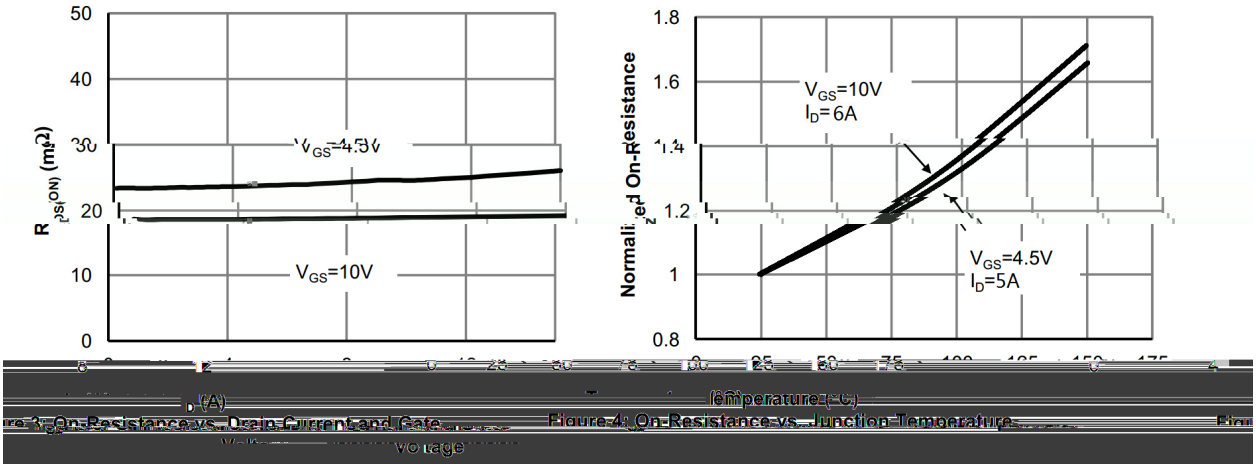
/

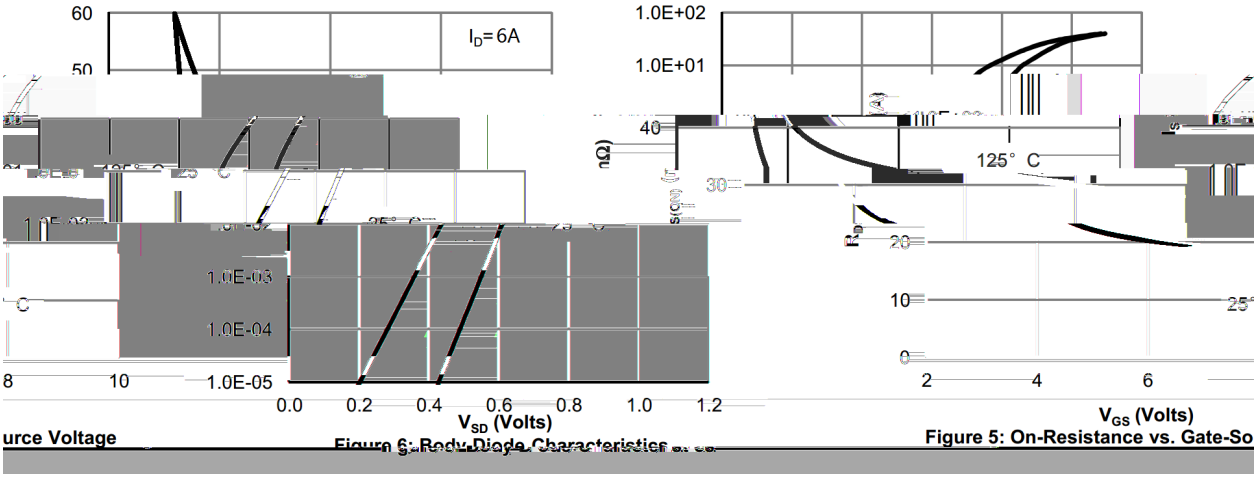
Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V	I_D=250μA	40	45		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=40V	V_{GS}=0V			1.0	μA
Gate-Body leakage current	I_{GSS}	V_{GS}=±20V	V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=250μA	1	1.8	3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V	I_D=6.0A		18	20	mΩ
		V_{GS}=4.5V	I_D=5.0A		24	35	mΩ
Diode Forward Voltage	V_{SD}	V_{GS}=0V	I_S=1.0A			1.2	V
Input Capacitance	C_{iss}	V_{DS}=25V f=1.0MHz	V_{GS}=0V		1200		pF
Output Capacitance	C_{oss}				350		pF
Reverse Transfer Capacitance	C_{rss}				250		pF
Gate resistance	R_g	V_{DS}=0V f=1.0MHz	V_{GS}=0V		2.5		Ω
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V I_D=6A	V_{DS}=20V		9.2		nC
Total Gate Charge	$Q_{g(4.5V)}$				4.5		
Gate-Source Charge	Q_{gs}				2.5		nC
Gate-Drain Charge	Q_{gd}				1.5		nC

/

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=20V V_{GS}=10V R_L=3.3Ω R_{GEN}=3Ω		6.5		ns
Turn-On Rise Time	t_r			3.7		ns
Turn-Off Delay Time	$t_{d(off)}$			18.2		ns
Turn-Off Fall Time	t_f			7.1		ns


10V
4.5V
3.5V
3V
V_{GS}=2.5V
I_D (A)
V_{DS} (Volts)
V_{DS}=5V
125° C
25° C
I_D(A)
V_{GS}(Volts)


V_{GS}=10V
V_{GS}=4.5V
I_D=6A
I_D=5A
Normalized On-Resistance


I_D=6A
125° C
25° C
1.0E-03
1.0E-04
1.0E-05
V_{SD} (Volts)
V_{GS} (Volts)

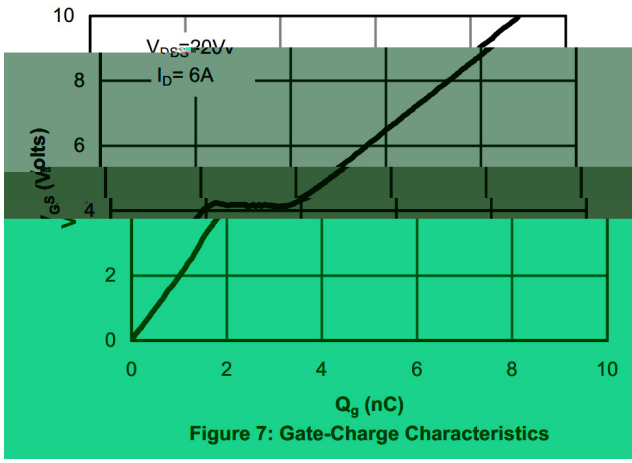


Figure 7: Gate-Charge Characteristics

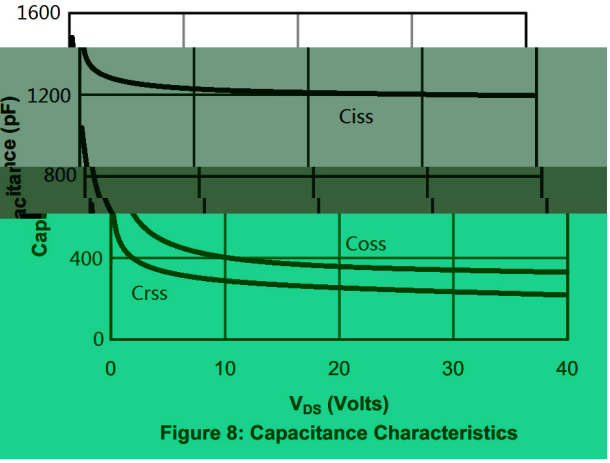


Figure 8: Capacitance Characteristics

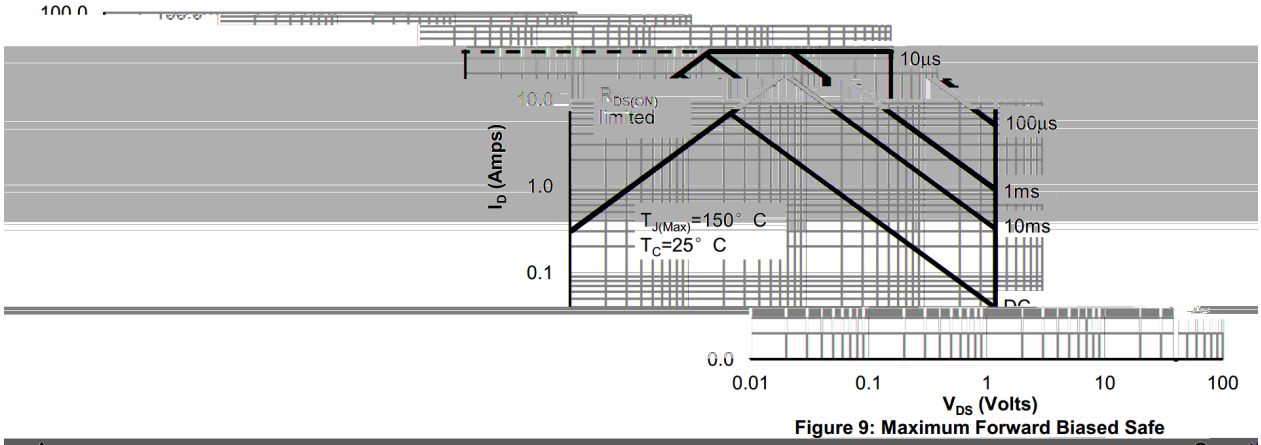


Figure 9: Maximum Forward Biased Safe

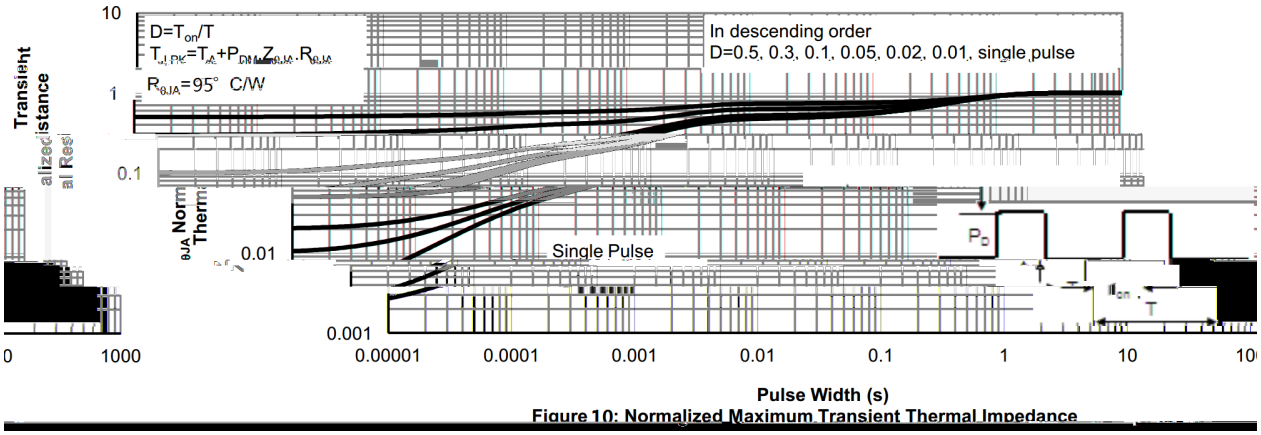
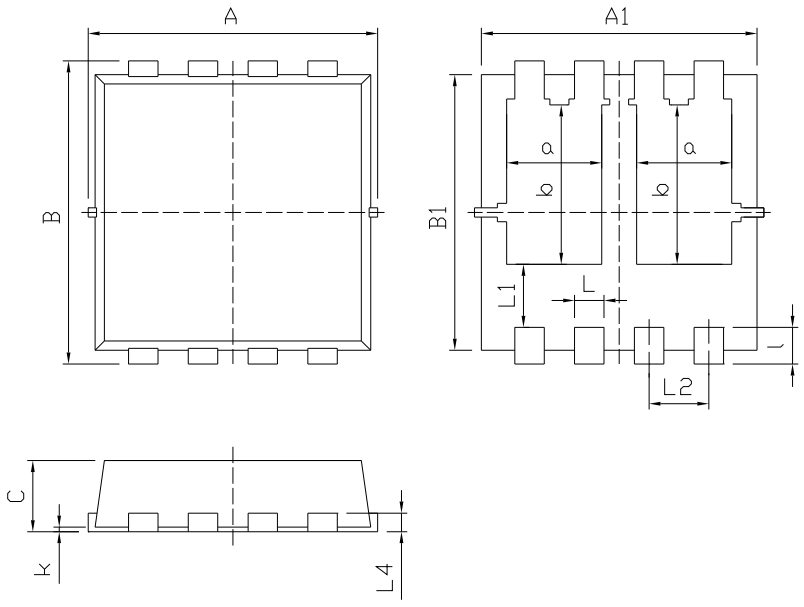


Figure 10: Normalized Maximum Transient Thermal Impedance

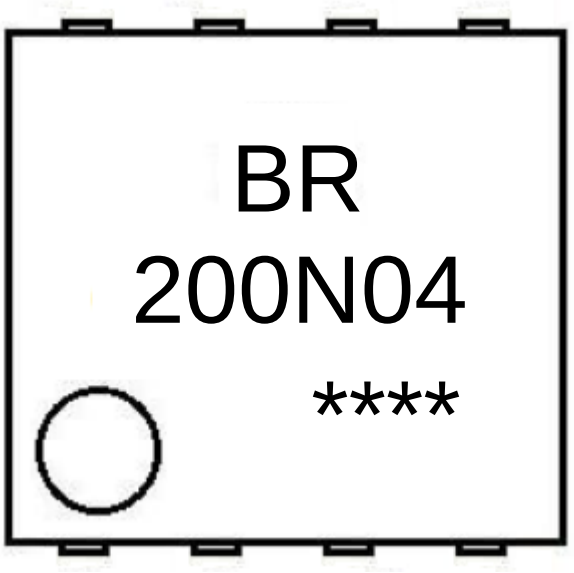
PDFN3X3-8L

Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.10	3.15	3.20
B	3.20	3.30	3.40
B1	2.95	3.00	3.05
C	0.75	0.80	0.85
L	0.25	0.30	0.35
L1	-	-	0.75
L2	0.55	0.65	0.75
L4	0.14	0.15	0.20
a	0.935	1.035	1.135
b	1.635	1.735	1.835
K	0.00	-	0.05
l	0.30	0.40	0.50

Rev.00 202011



BR

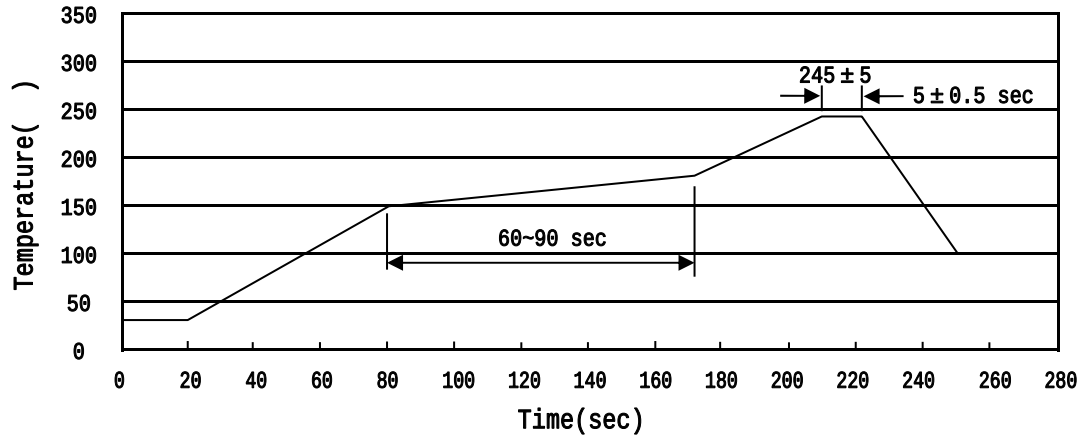
200N04

****

Note:

BR:	Company Code
200N04:	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.

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

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit：mm³)		
	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
PDFN3×3-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366