PDFN5×6A N

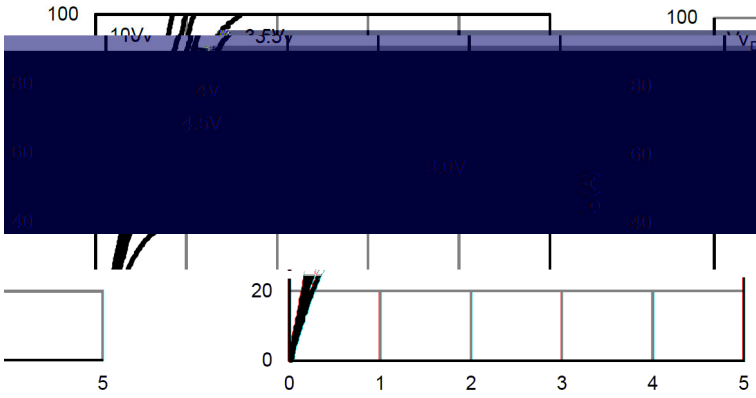
Dual N-CHANNEL MOSFET in a PDFN5×6A Plastic Package.

V_{DS}(V)=100V I_D=13.7A

R

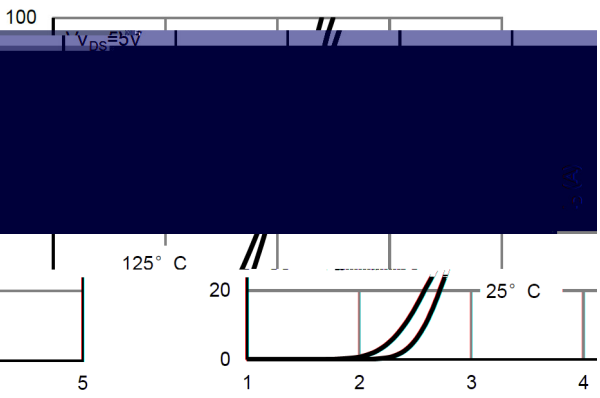
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Continuous Drain Current	I_D	13.7	A
Pulsed Drain Current	I_{DM}	48	A
Gate-Source Voltage	V_{GS}	±20	V
Power Dissipation	$P_D(T_c=25℃)$	35.7	W
Avalanche energy(L=0.5mH)	E_{AS}	2.7	mJ
Avalanche Current(L=0.5mH)	I_{AS}	3.3	A

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=50V R_L=10Ω R_{GEN}=3Ω		4		ns
Turn-On Rise Time	t_r			2		
Turn-Off Delay Time	$t_{d(off)}$			15		
Turn-Off Fall Time	t_f			2		



V_{DS} (Volts)

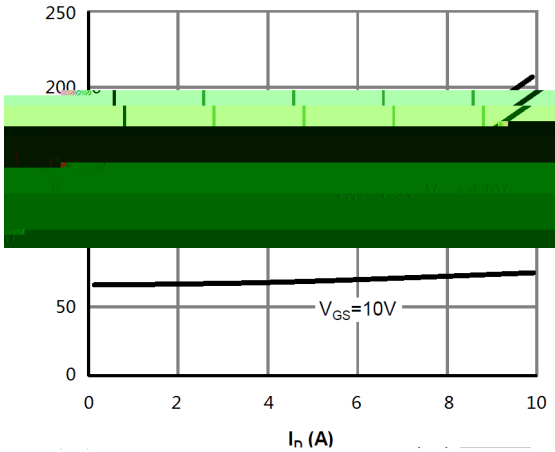
Figure 1: On-Region Characteristics



V_{GS} (Volts)

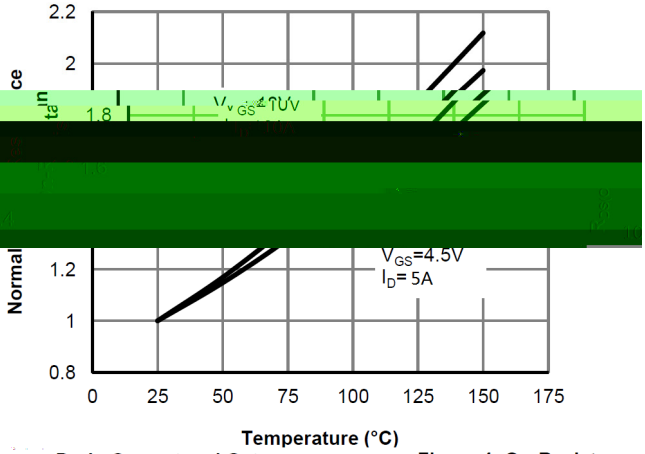
Figure 2: Transfer Characteris

tics



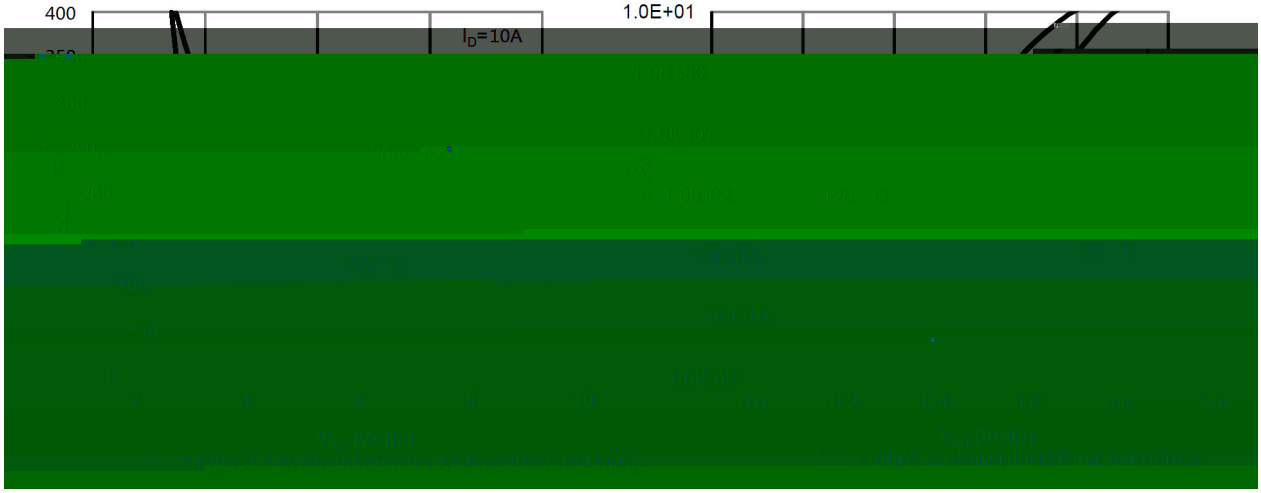
I_D (A)

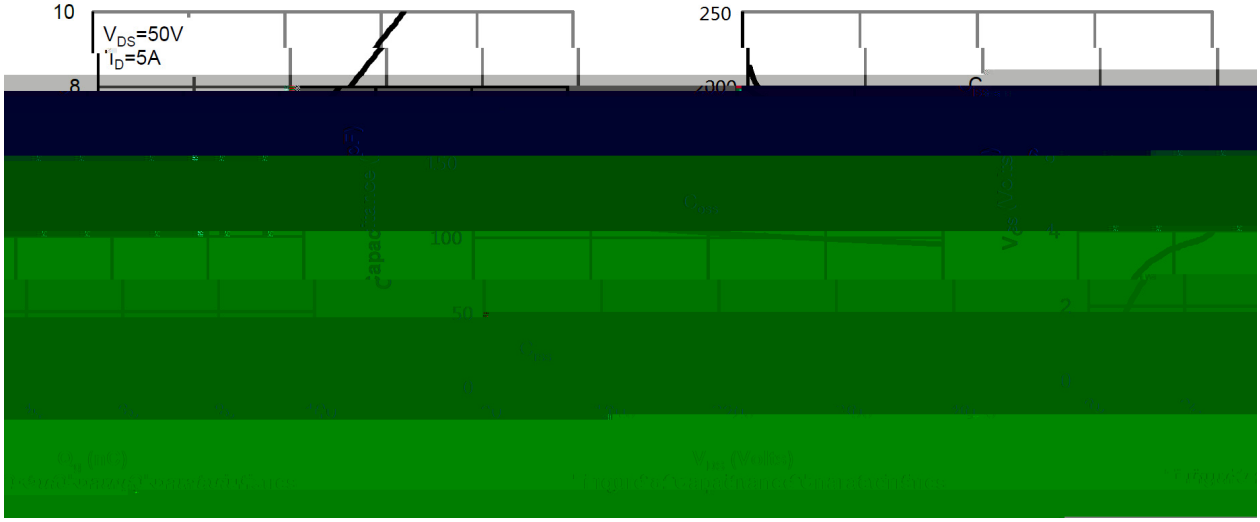
Figure 3: On-Resistance vs. Drain Current and Gate Voltage

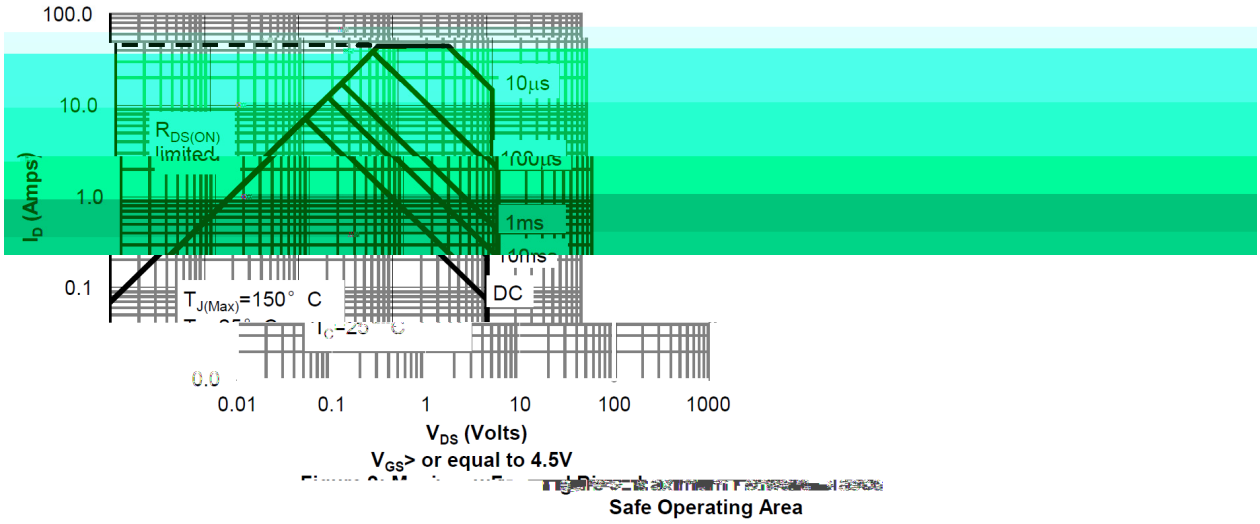


Temperature (°C)

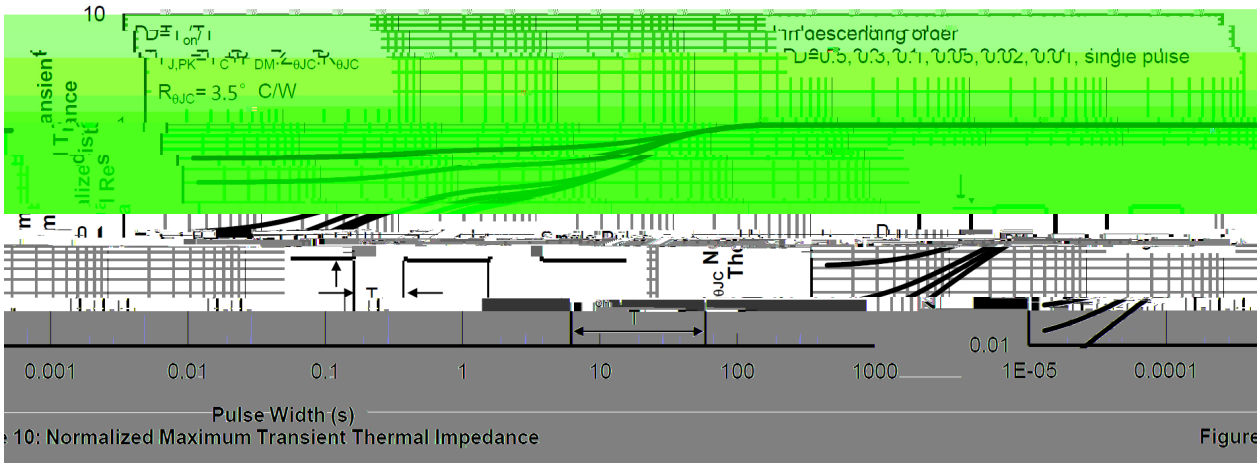
Figure 4: On-Resistance vs. Junction Temperature







Safe Operating Area

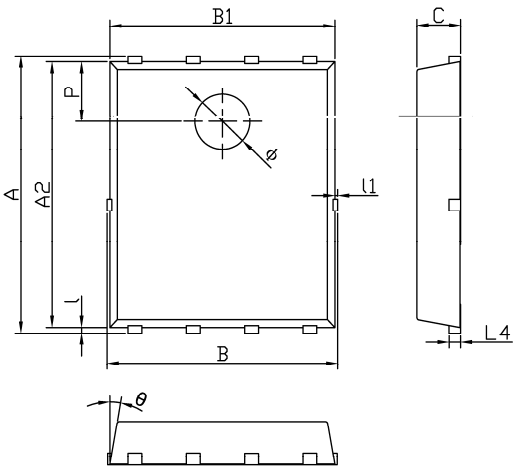


10: Normalized Maximum Transient Thermal Impedance

Figure

PDFN5X6A

Unit:mm



Dimensions In Millimeters			
Symbol	MIN	TYP	MAX
A	5.90	6.00	6.10
α	1.605	1.705	1.805
A2	5.70	5.75	5.80
B	4.90	5.00	5.10
b	3.375	3.475	3.575
B1	4.80	4.90	5.00
C	0.90	0.95	1.00
L	0.30	0.40	0.50
l	0.06	0.13	0.20
L1	1.10	–	–
l1	–	–	0.10
L2	1.17	1.27	1.37
L4	0.21	0.26	0.34
L6	0.51	0.61	0.71
L7	0.45	0.55	0.65
P	1.15	1.30	145
θ	8°	10°	12°
ϕ	1.10	1.20	1.30

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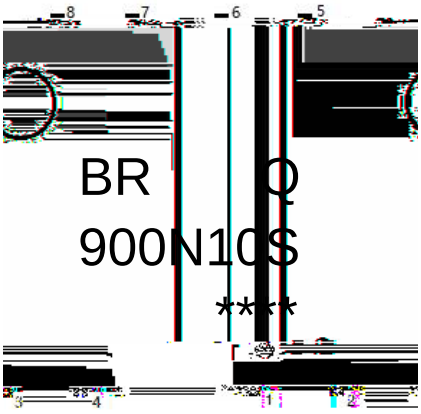


BR

Q

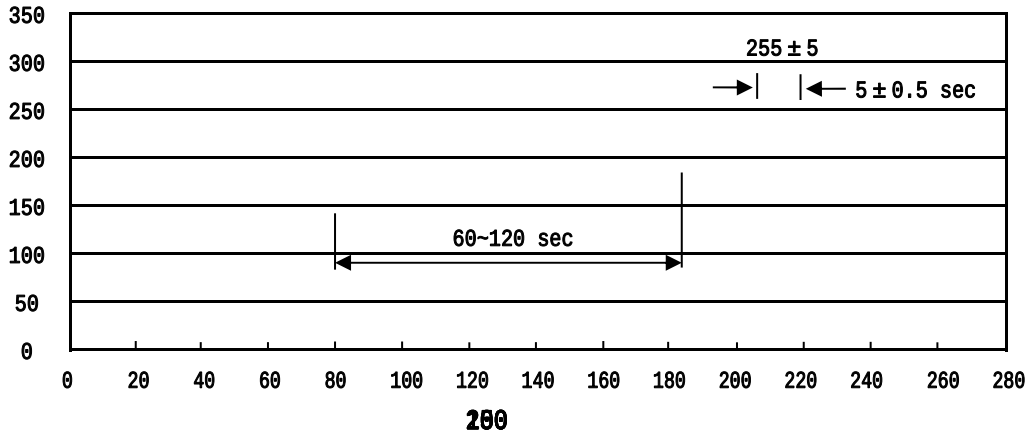
900N10S

****

Note

BR	Company Code
Q:	Automobile halogen-free product Code
900N10S	Product Type Code
****:	Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1 150 200 60 120sec;

2 255±5 5±0.5sec;

3 2 10 /sec.

1.Preheating:150~200 , Time:60~120sec.

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

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

/ REEL

Package Type	Units					Dimension		(unit mm³)
	/	/	/	/	/			
PDFN5×6A	5,000	2	10,000	6	60,000	13''×12	360×360×50	380×335×366