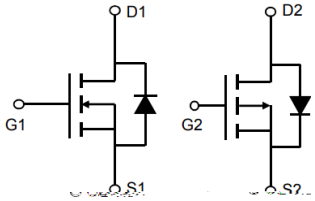
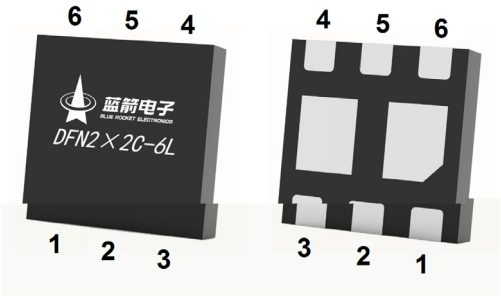
DFN2×2C-6L

Complementary Enhancement MOSFET in a DFN2×2C-6L Plastic Package.

N-channel	P-channel
$V_{DS(V)}$=16V	$V_{DS(V)}$=-16V
I_D=8.4A	I_D=-6.3A
$R_{DS(ON)}$@4.5V≤15mΩ(Typ.13mR)	$R_{DS(ON)}$@-4.5V≤25mΩ(Typ.21mR)
$R_{DS(ON)}$@2.5V≤18mΩ(Typ.16mR)	$R_{DS(ON)}$@-2.5V≤35mΩ(Typ.28mR))
HF Product.	

Power Management in Notebook Computer,Portable Equipment and Battery Powered Systems.





出脚	定义
PIN 1	S1
PIN 2	G1
PIN 3	D2
PIN 4	S2
PIN 5	G2
PIN 6	D1

See Marking Instructions.

Parameter	Symbol	Rating		Unit
		N-channe	P-channell	
Drain-Source Voltage	V_{DSS}	±16		V
Gate-Source Voltage	V_{GSS}	±10		V
Continuous Drain Current	I_D	8.4	-6.3	A
Pulsed Drain Current	I_{DM}	33	-24.5	A
Avalanche Current(L=0.1mH)	I_{AS}	7	14	A
Avalanche energy(L=0.1mH)	E_{AS}	6.5	26	mJ
Power Dissipation	P_D	1.6	1.5	W
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150		
Maximum Junction-to-Ambient	$R_{\theta JA}$(t≤10s)	78	83	/W
	$R_{\theta JA}$(Steady-State)	135		

N-

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	16	21		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=16V V_{GS}=0V			1.0	μA
Gate-Body leakage current	I_{GSS}	V_{GS}=±10V V_{DS}=0V			100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	0.45	0.75	0.95	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=4.5V I_D=3A		13	15	mΩ
		V_{GS}=2.5V I_D=2A		16	18	mΩ
Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1.0A			1.2	V
Input Capacitance	C_{iss}	V_{DS}=10V V_{GS}=0V f=1.0MHz		765		pF
Output Capacitance	C_{oss}			650		pF
Reverse Transfer Capacitance	C_{rss}			520		pF
Gate resistance	R_g	V_{DS}=0V V_{GS}=0V f=1.0MHz		3.5		Ω
Total Gate Charge	Q_g	V_{GS}=4.5V V_{DS}=8.0V I_D=8.4A		17.9		nC
Gate-Source Charge	Q_{gs}			1.5		nC
Gate-Drain Charge	Q_{gd}			4.7		nC
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=8.0V V_{GS}=10V R_L=1.2Ω R_{GEN}=3Ω		2.5		ns
Turn-On Rise Time	t_r			7.2		ns
Turn-Off Delay Time	$t_{d(off)}$			49		ns
Turn-Off Fall Time	t_f			10.8		ns

N-

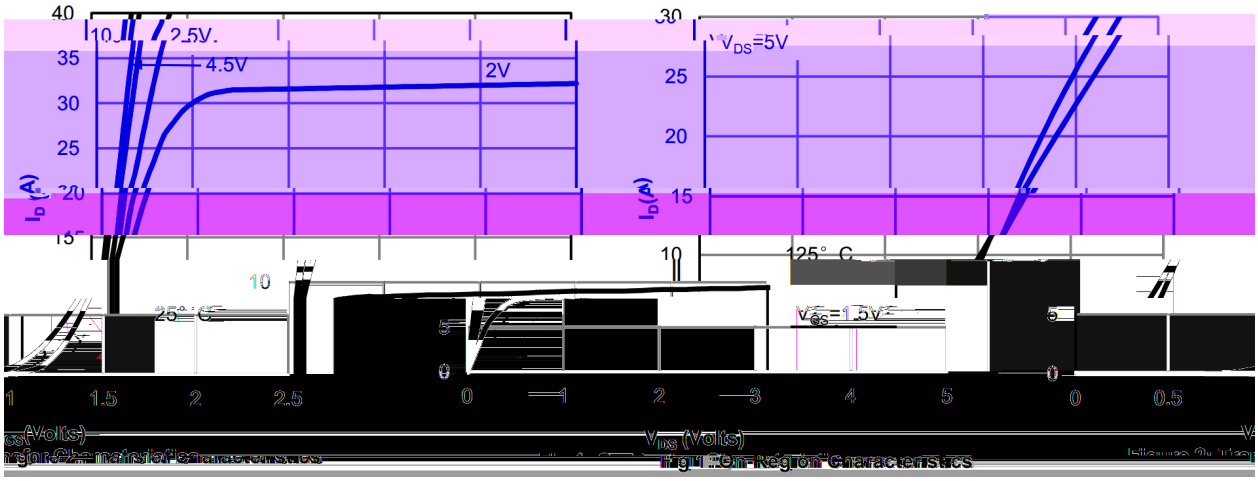
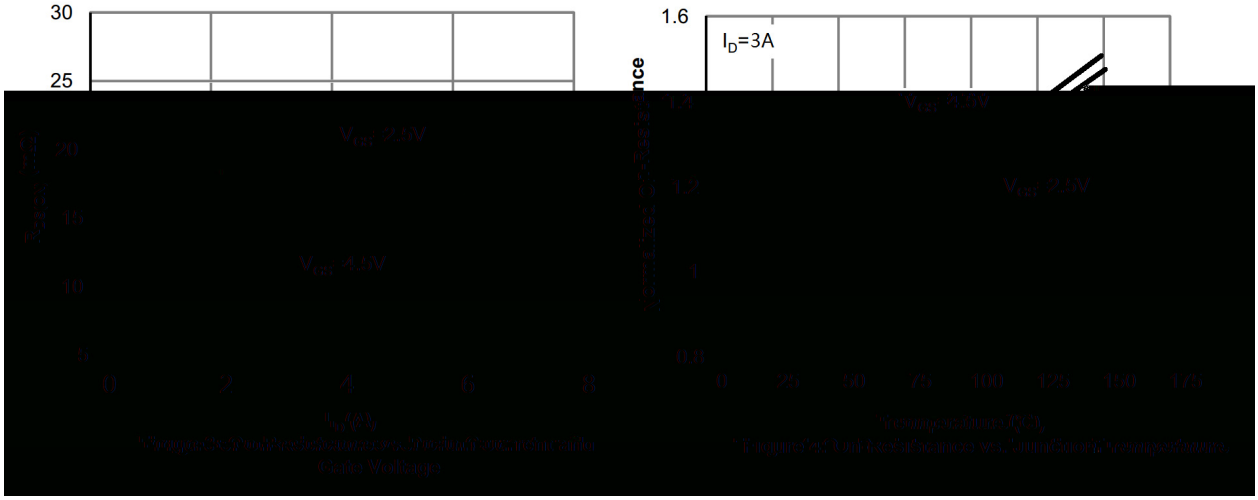


Fig 1: On-Region Characteristics



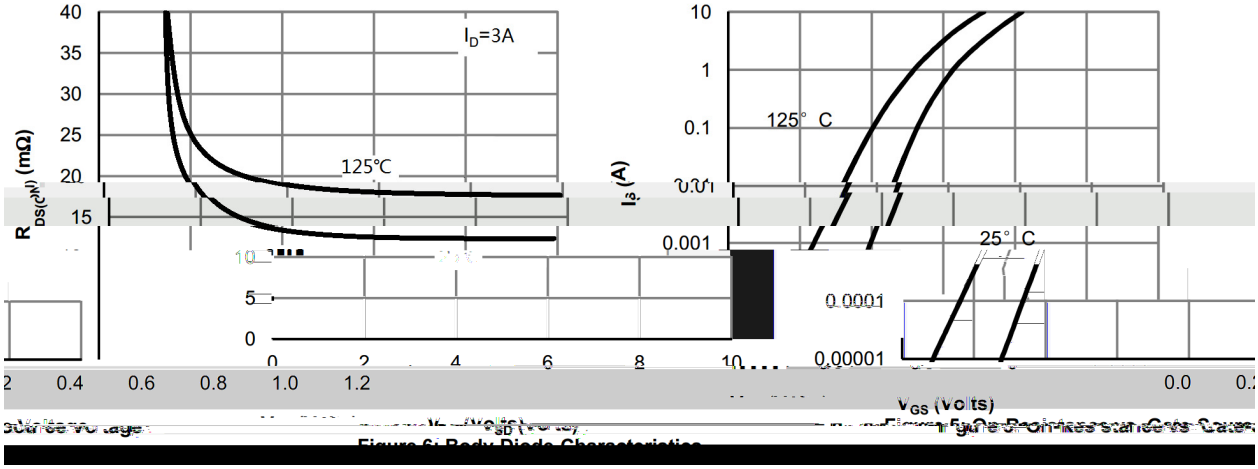
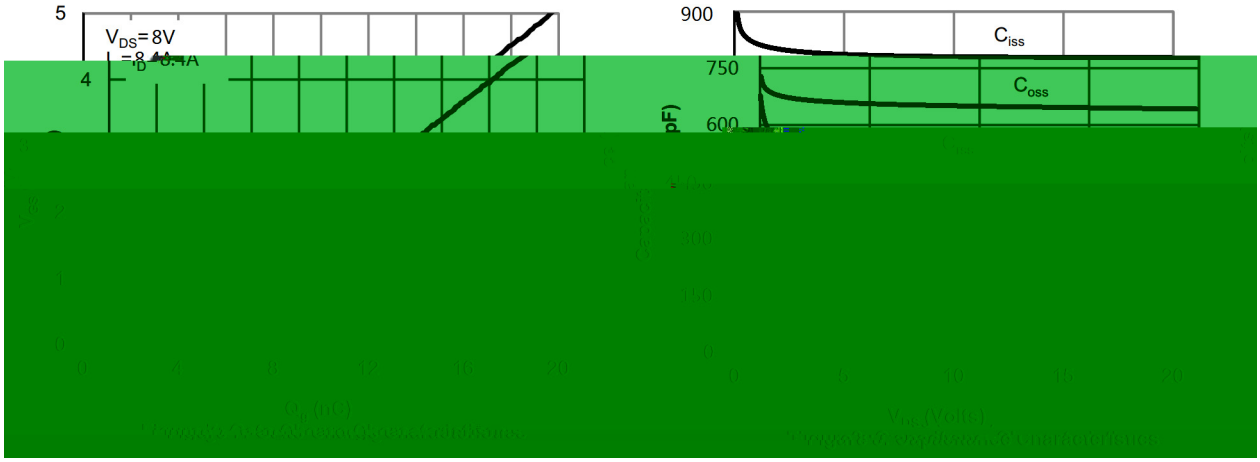


Figure 6: Body Diode Characteristics

N-



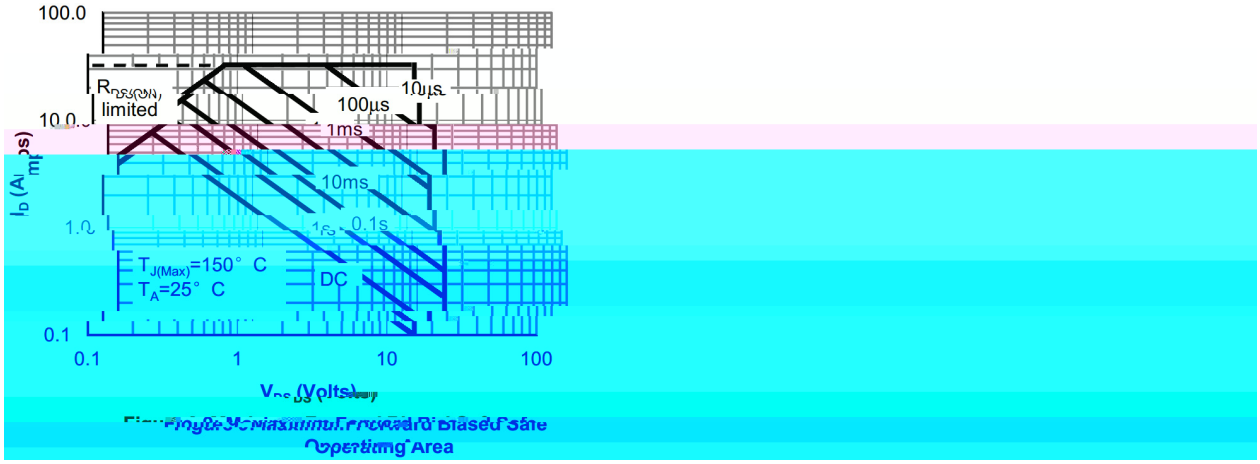


Figure 9: Maximum Forward Biased Safe Operating Area

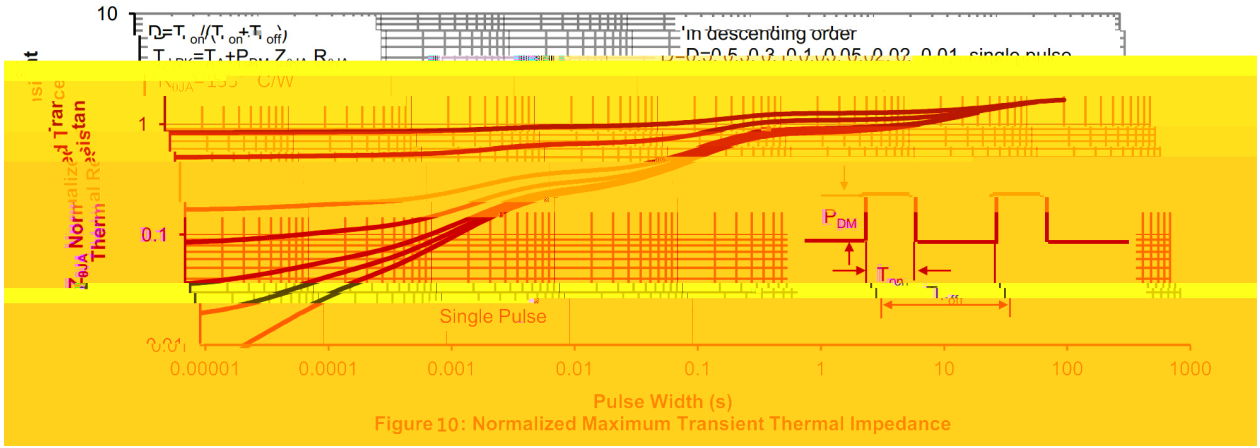


Figure 10: Normalized Maximum Transient Thermal Impedance

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit

P–

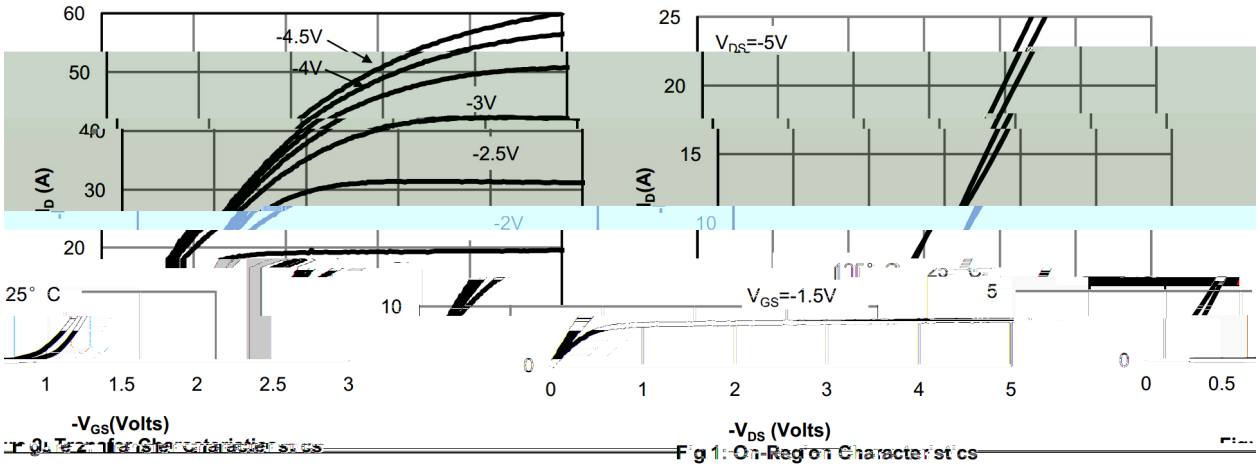


Fig 2: Transfer Characteristics

Fig 1: On-Region Characteristics

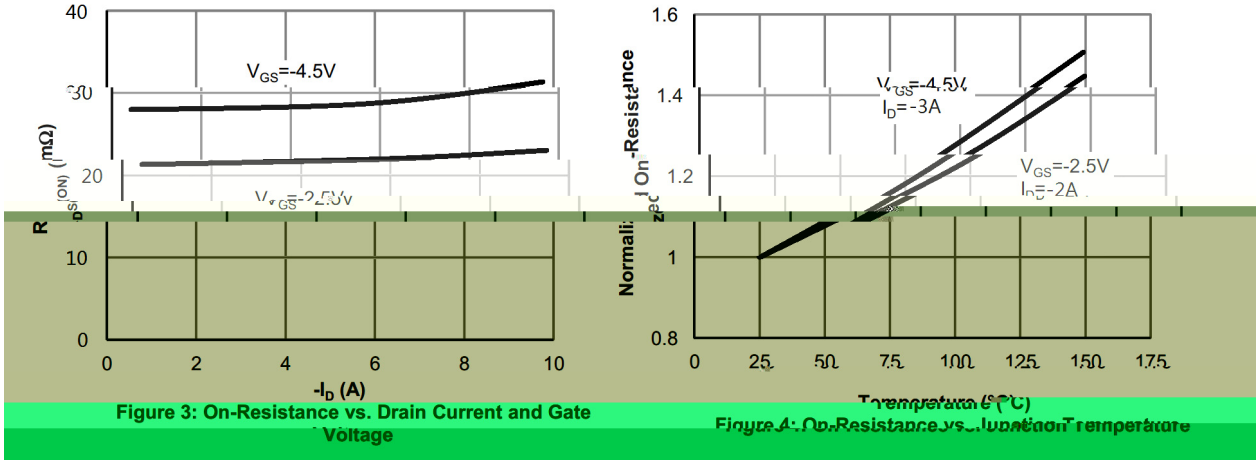
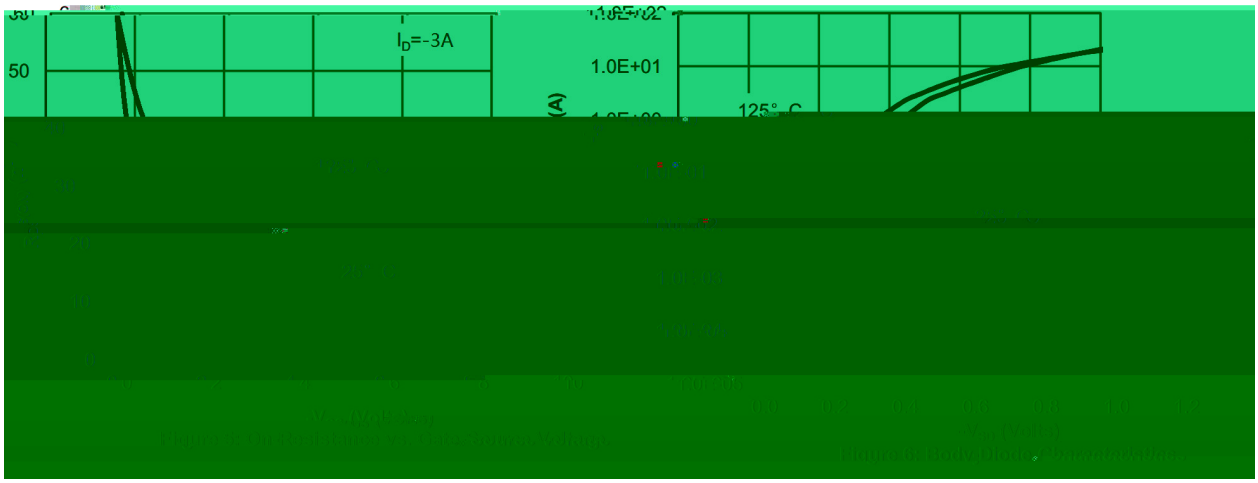


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature



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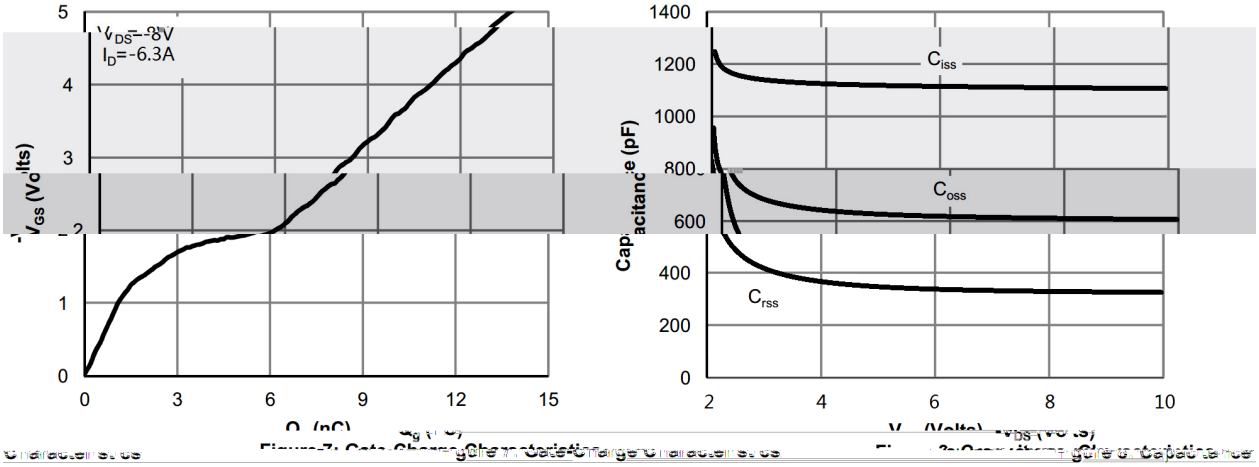
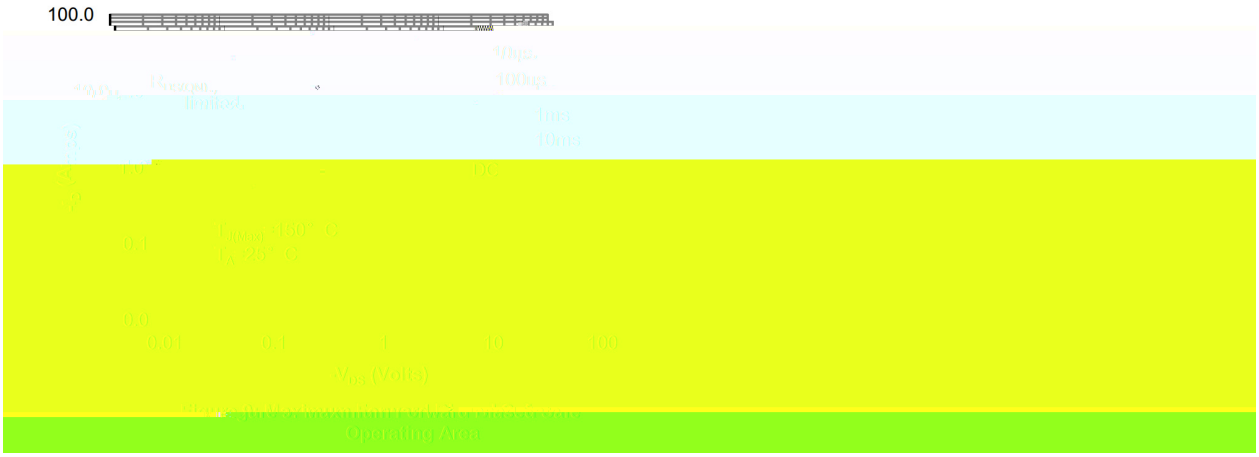




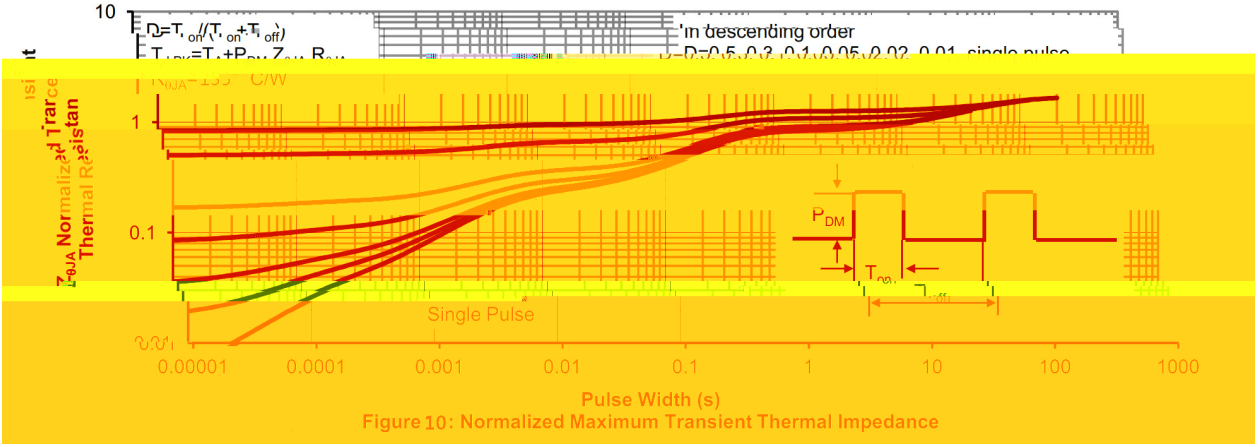
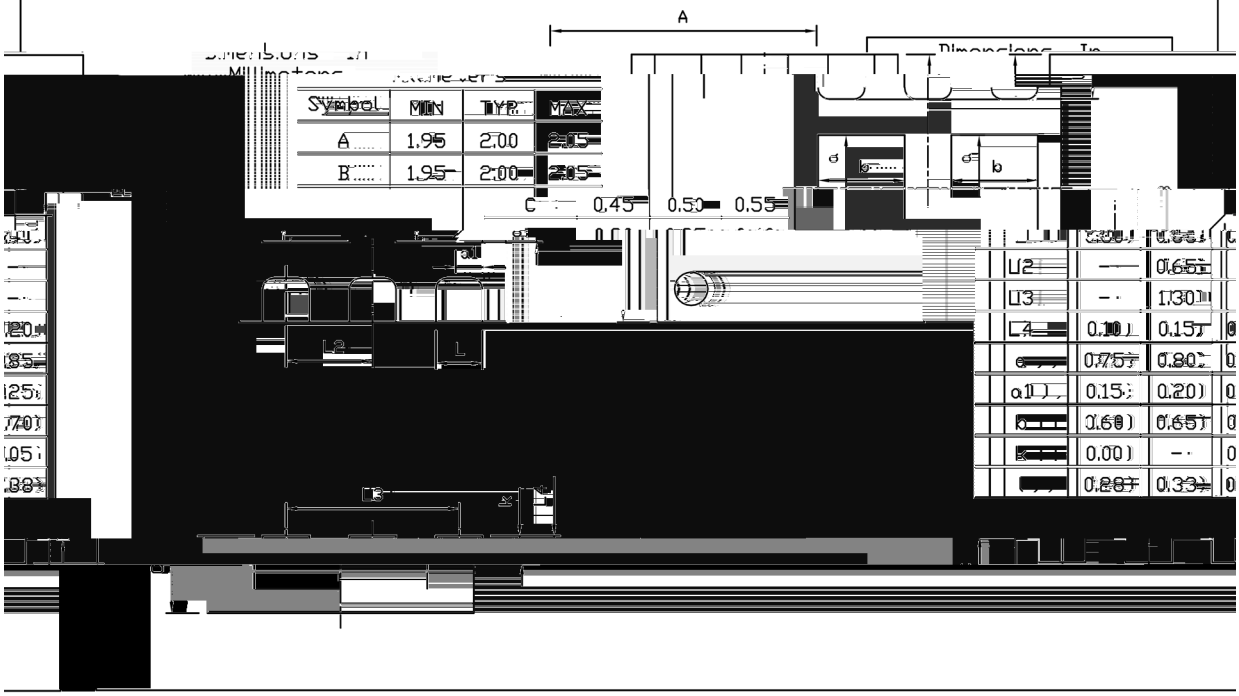


Figure 10: Normalized Maximum Transient Thermal Impedance

DFN2×2C-6L-0.5 Unit:mm



02204 Rev.00 2

BR
150C016
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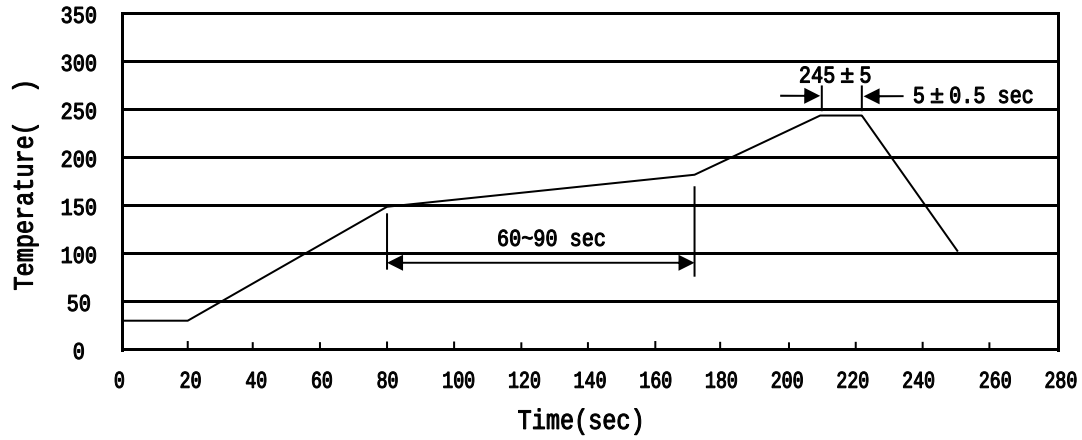
Note:

BR:	Company Code
150C016:	Product Type
****:	Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



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.

Note:

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

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
DFN 2×2C-6L	4,000	10	40,000	4	160,000	7 ×8	210×205×205	445×435×230