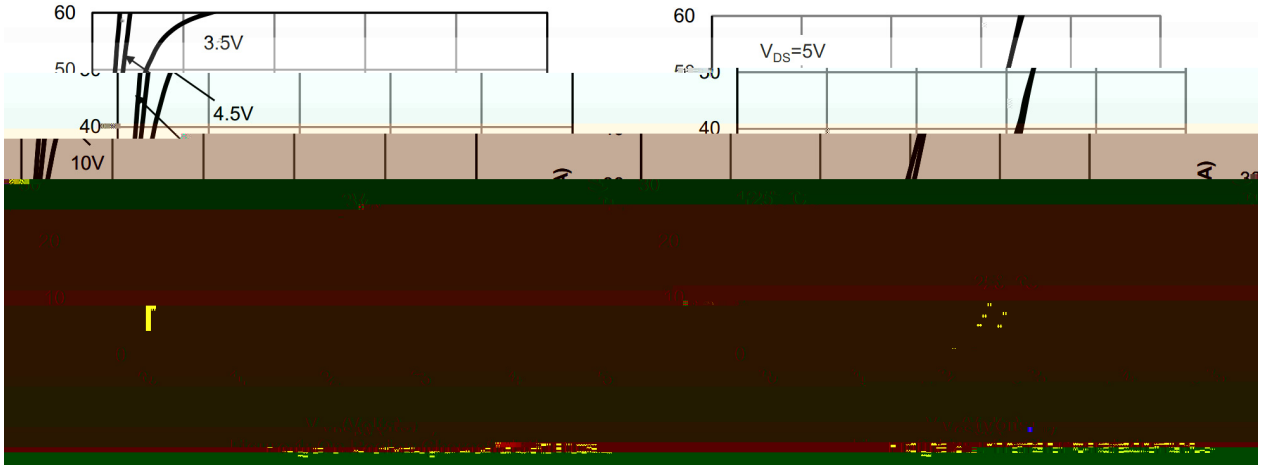
Ã a ? d / Absolute Maximum Ratings(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	ƒ › Rating		% y Unit
		N-channe	P-channell	
Drain-Source Voltage	V_{DSS}	30	-30	V
Gate-Source Voltage	V_{GSS}	±20		V
Continuous Drain Current	I_D	15.5	-11.5	A
Pulsed Drain Current	I_{DM}	49	-37	A
Power Dissipation	P_D	3.2	3	W
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150		
Maximum Junction-to-Ambient	R_{JA}	90		/W

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	30	35.5		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V V_{GS}=0V			1.0	A
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=250 A	1.0	1.8	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=10A		7.5	8	m
		V_{GS}=4.5V I_D=10A		11	15	m
Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		1170		pF
Output Capacitance	C_{oss}			110		pF
Reverse Transfer Capacitance	C_{rss}			100		pF
Gate resistance	Rg	V_{DS}=0V V_{GS}=0V f=1.0MHz		3.7		S
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=15V I_D=10A		40		nC
Total Gate Charge	$Q_{g(4.5V)}$			22		nC
Gate-Source Charge	Q_{gs}			11		nC
Gate-Drain Charge	Q_{gd}			5		nC
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=15 V V_{GS}=10V R_L=0.75 R_{GEN}=3		11		ns

N-?è Ô ? d • Ž ¢ / N-CHANNEL Electrical Characteristic Curve



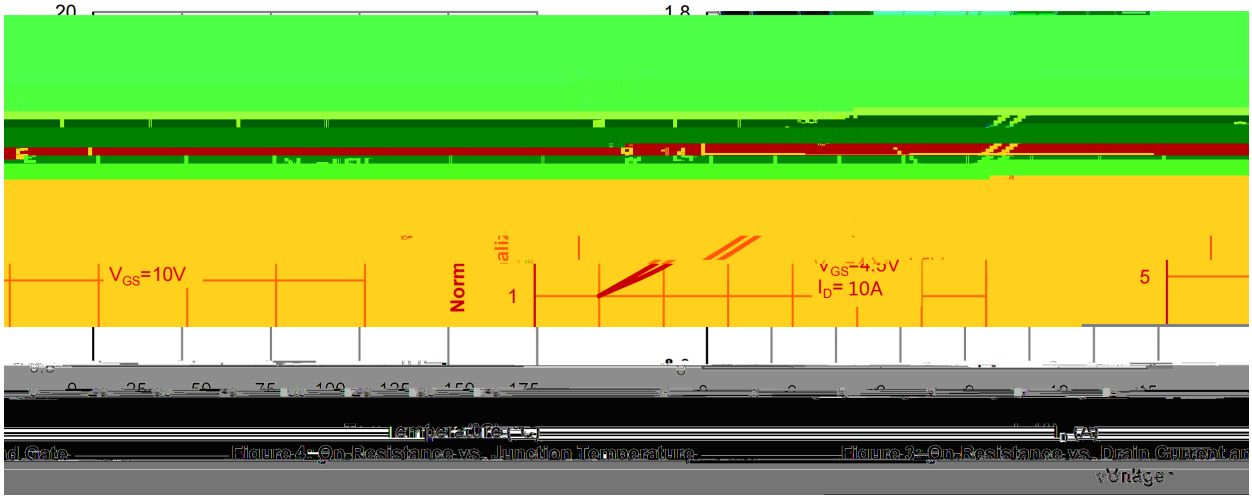
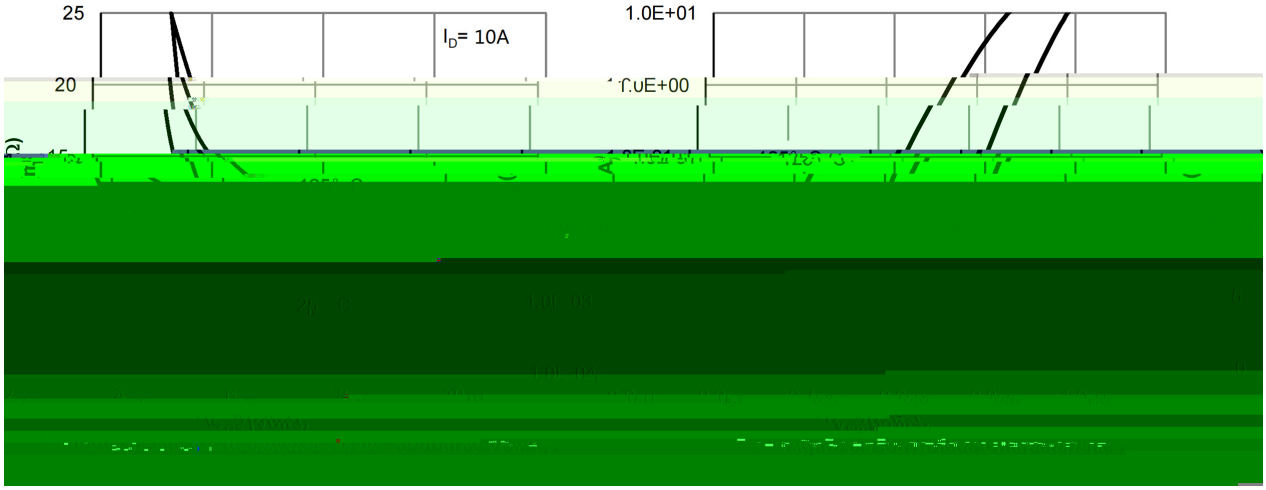
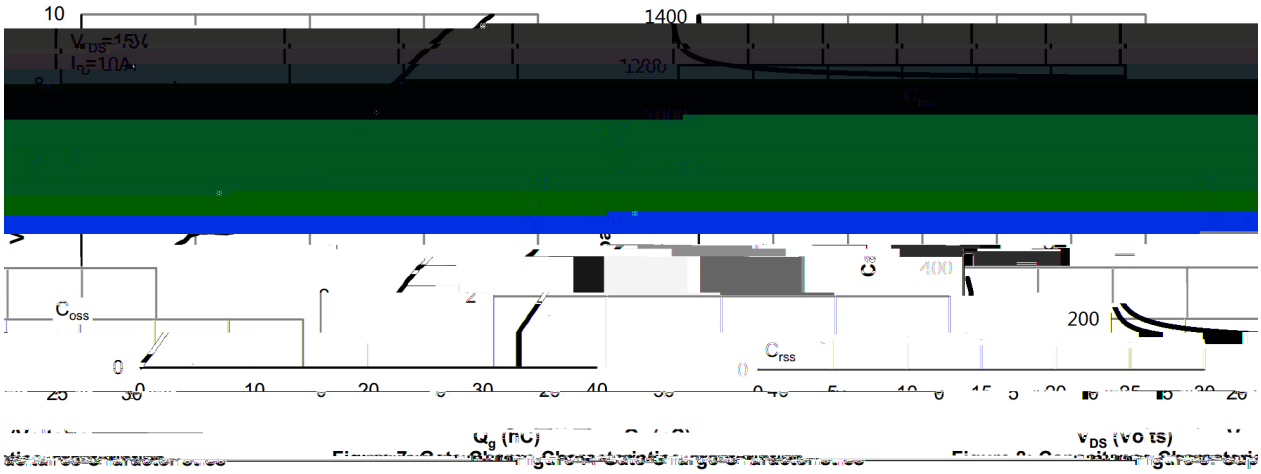


Figure 4 On-Resistance vs. Junction Temperature

Figure 3 On-Resistance vs. Drain Current



N-?è Ô ? d • Ž ¢ / N-CHANNEL Electrical Characteristic Curve



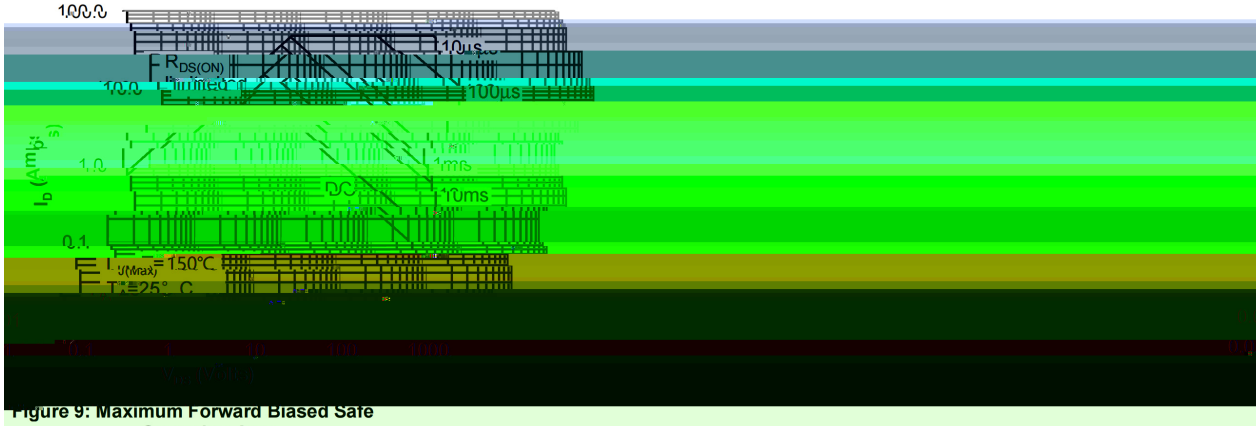
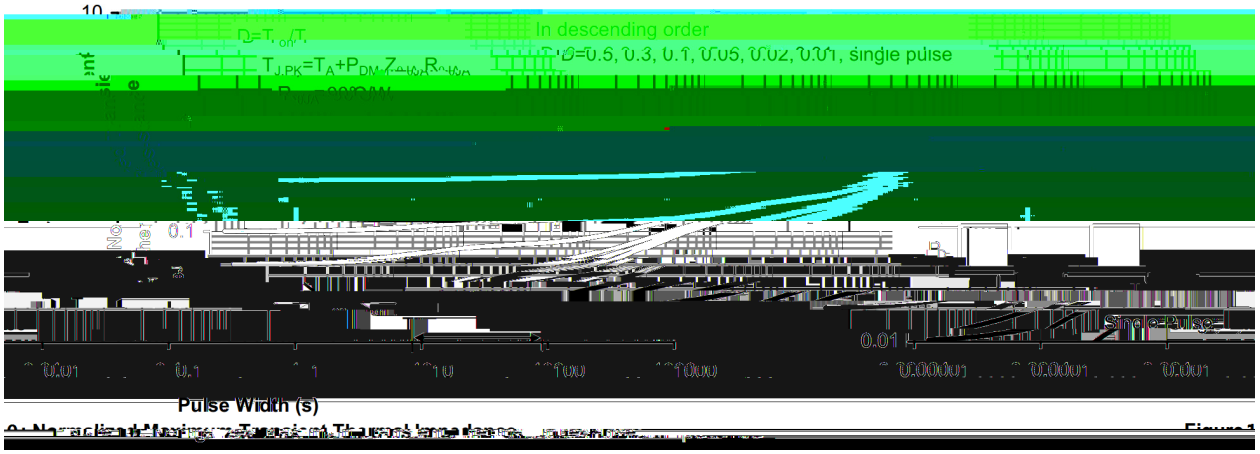


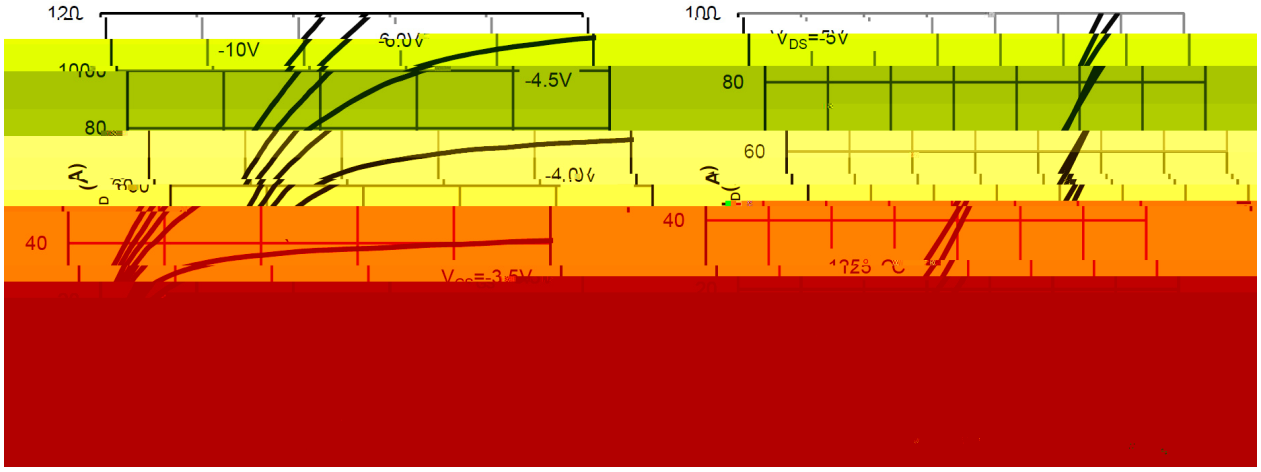
Figure 9: Maximum Forward Biased Safe Operating Area

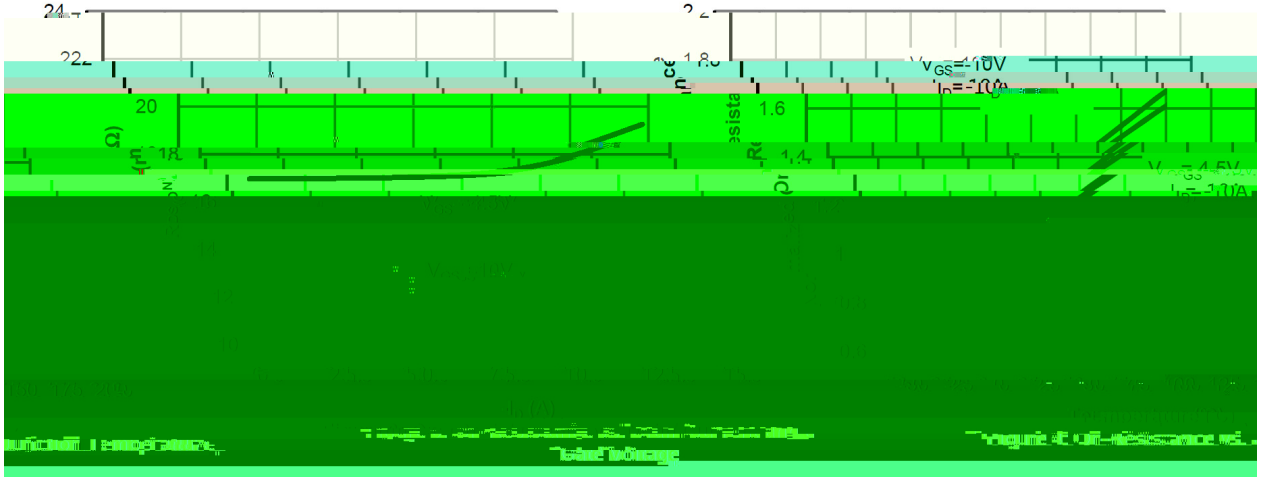


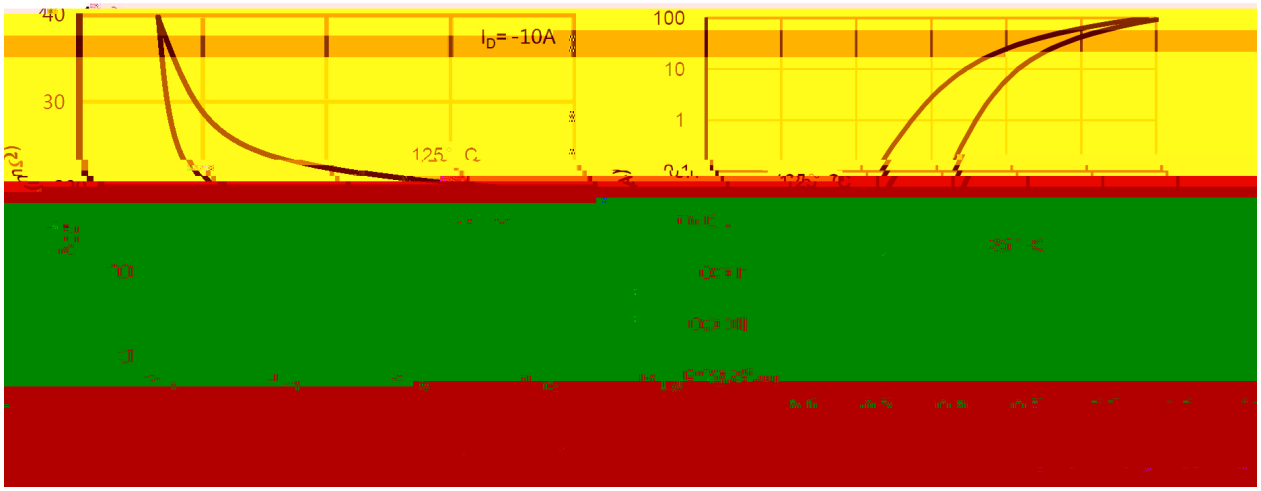
P-?è Ô4ì × ? d P-CHANNEL Electrical Characteristics(Ta=25)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=-250 A	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-4030V_{GS}=0V			-1.0	A
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=-250 A	-1.0	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=-10V I_D=-10A		12	13	m
		V_{GS}=-4.5V I_D=-10A		17	20	m
Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=-1.0A			-1.4	V
Input Capacitance	C_{iss}	V_{DS}=-25V V_{GS}=0V f=1.0MHz		2100		pF
Output Capacitance	C_{oss}			1900		pF
Reverse Transfer Capacitance	C_{rss}			640		pF
Gate resistance	R_g	V_{DS}=0V V_{GS}=0V f=1.0MHz		4		S
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=-10V V_{DS}=-15V I_D=-10A		35		nC
Total Gate Charge	$Q_{g(4.5V)}$			17		nC
Gate-Source Charge	Q_{gs}			5.7		nC
Gate-Drain Charge	Q_{gd}			8.8		nC
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=-15 V V_{GS}=-10V R_L=1 R_{GEN}=3		11		ns
Turn-On Rise Time	t_r			7.5		ns
Turn-Off Delay Time	$t_{d(off)}$			43.5		ns
Turn-Off Fall Time	t_f			17.5		ns

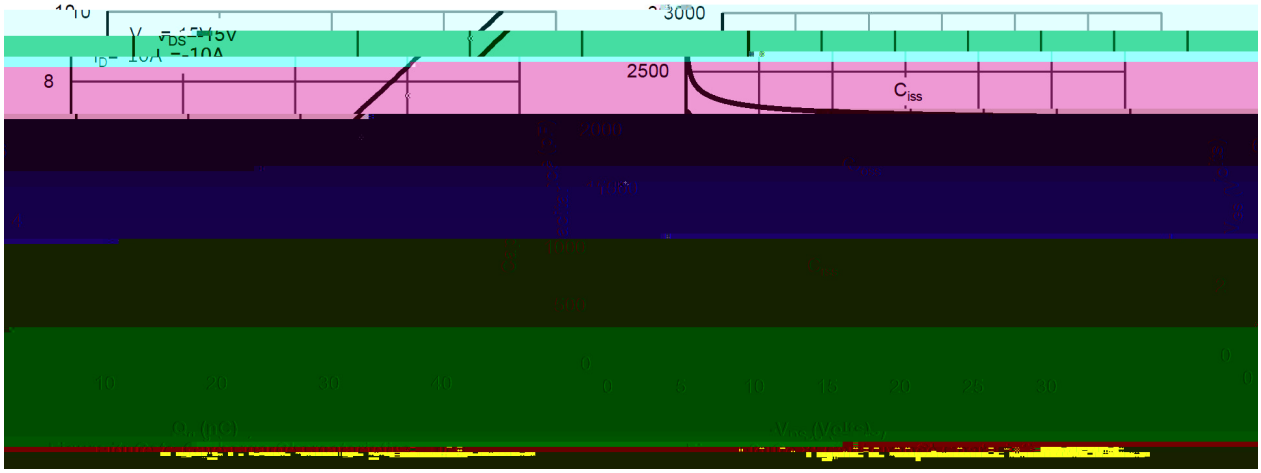
P-?è Ô ? d • Ž ¢ / P-CHANNEL Electrical Characteristic Curve







P-?è Ô ? d • Ž ¢ / P-CHANNEL Electrical Characteristic Curve



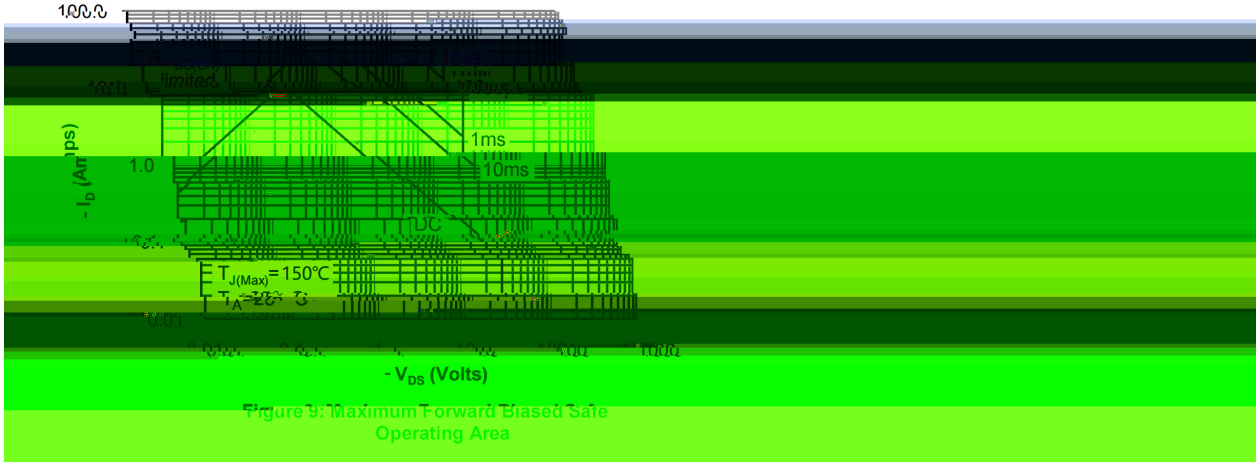
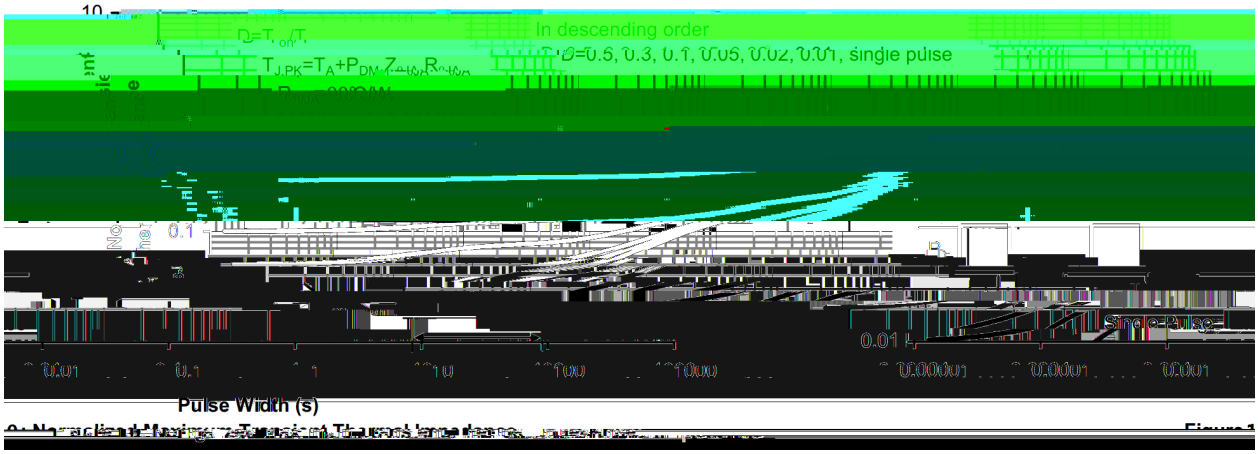


Figure 9: Maximum Forward Biased Safe Operating Area



š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 - ž • y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)	
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box‹q`ÐÀ©vn±' •7hPÐÀÓ p