

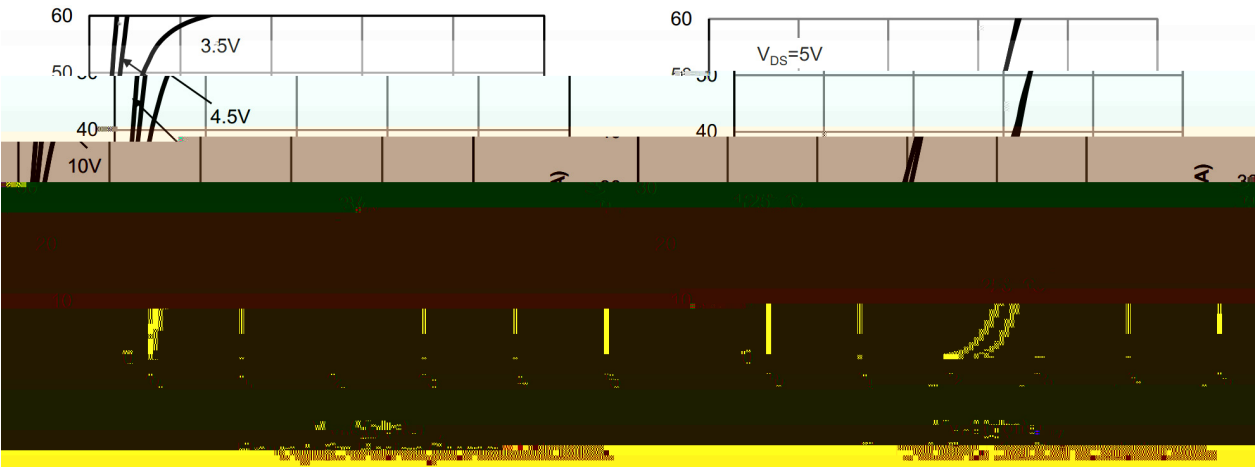
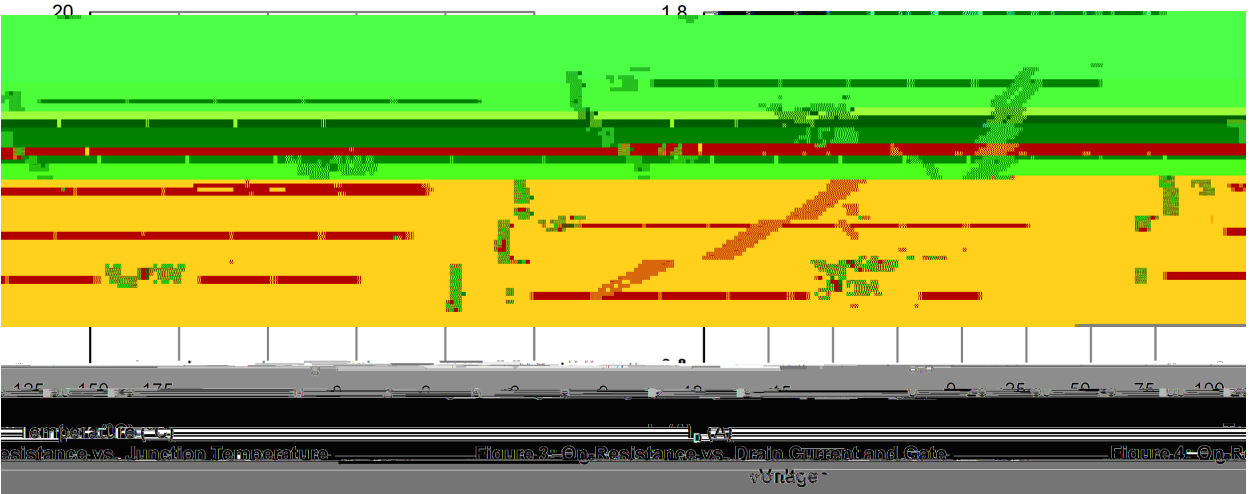
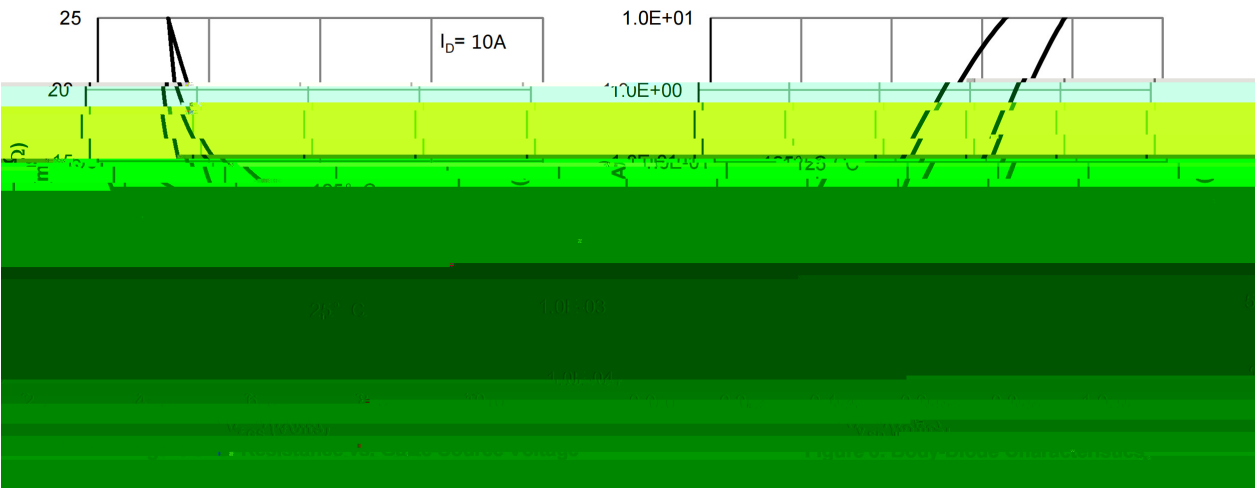
Absolute Maximum Ratings(Ta=25℃ ;)

Parameter	Symbol	Rating		Unit
		N-channel	P-channel	
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		°C/W

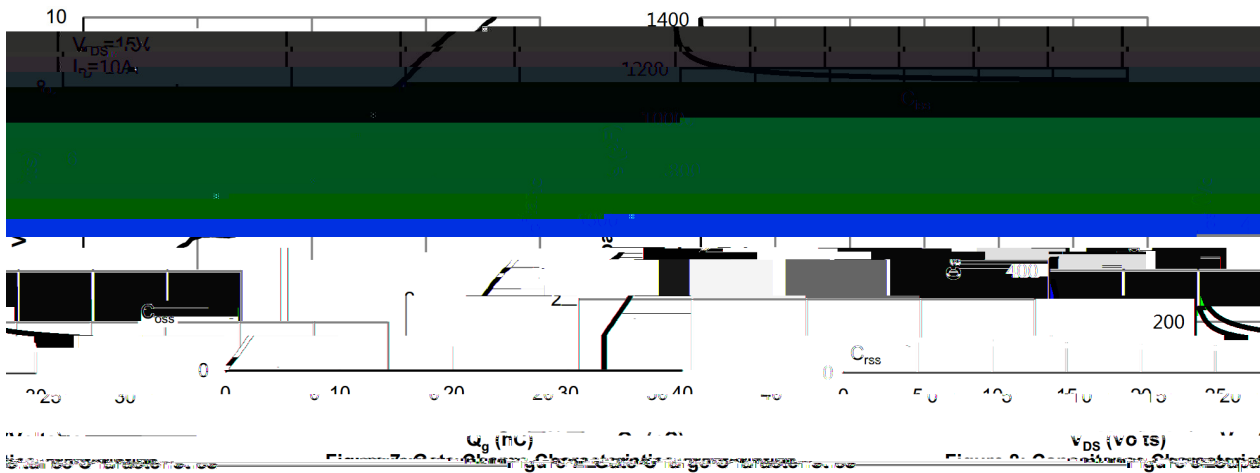
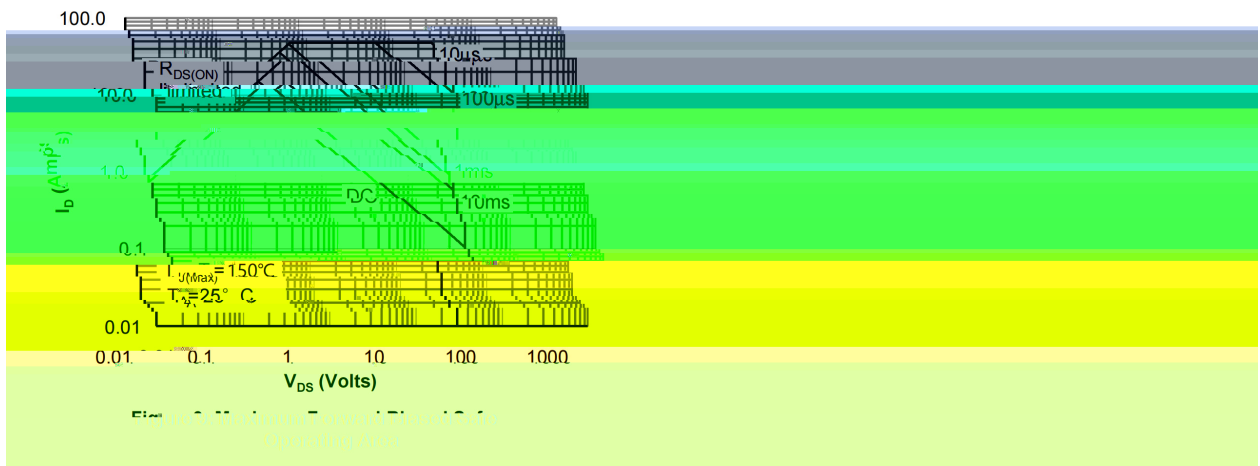
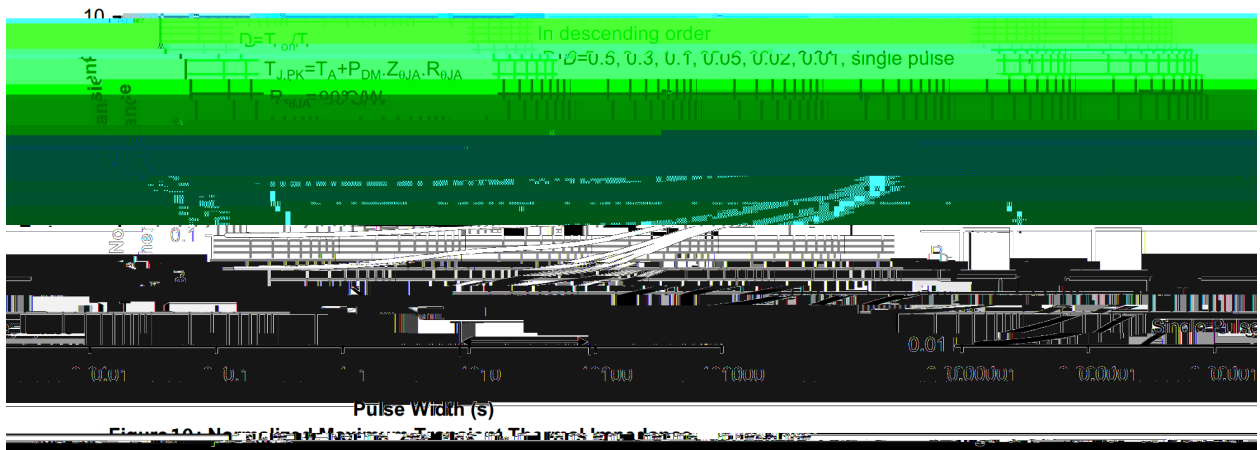
@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 > Min	Á ° > Typ	Â Ý > Max	% y Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =250 A	30	35.5		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =30V V _{GS} =0V			1.0	A
Gate-Body leakage current	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±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	R _g	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)}			11		ns

V_{DS}=15 V V_{GS}=10V
R_L=0.75 R_{GEN}=3

N-CH / N-CHANNEL Electrical Characteristic Curve



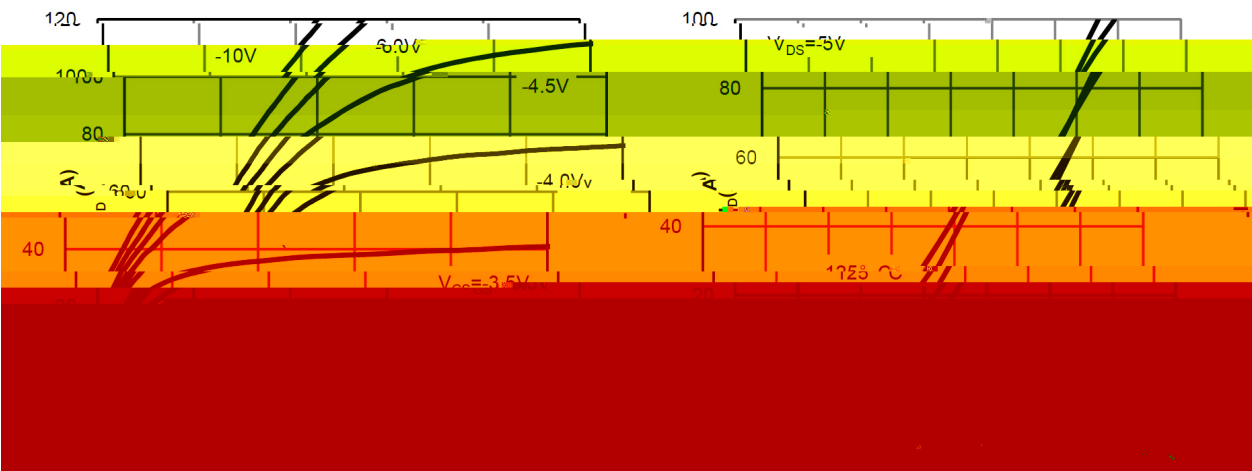
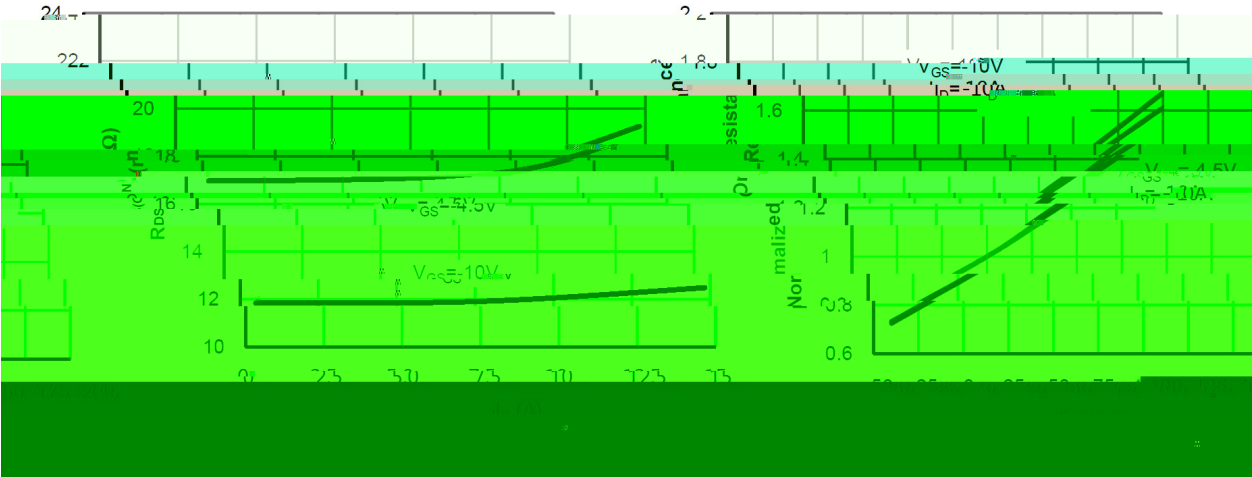
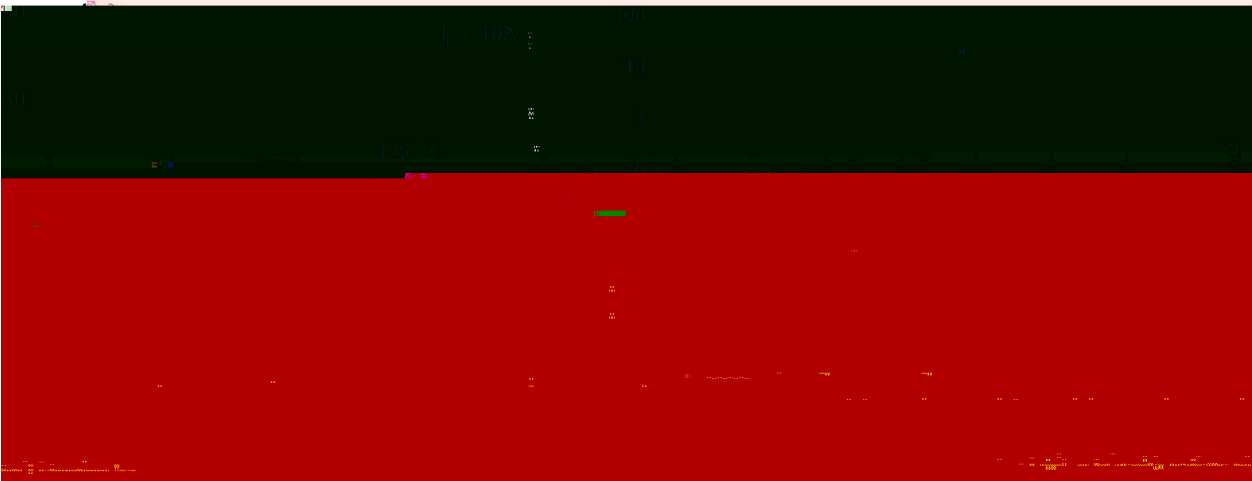
N-è Ò ? d • Ž ¢ / N-CHANNEL Electrical Characteristic Curve



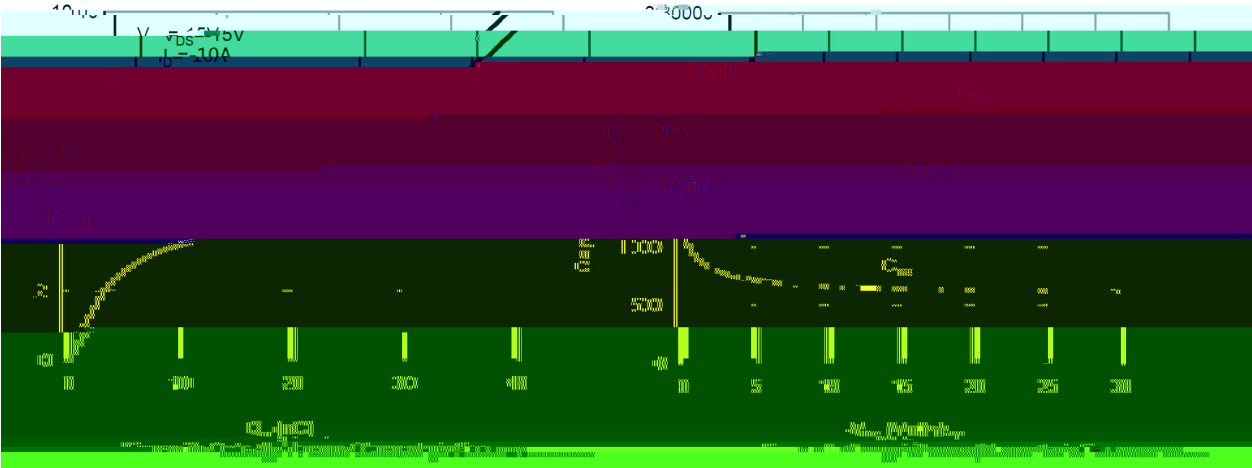
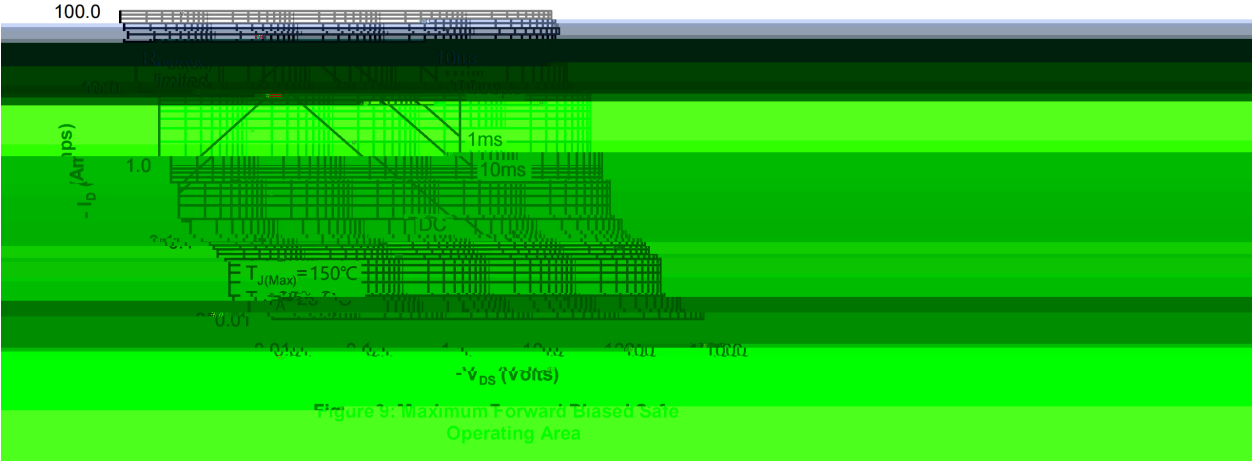
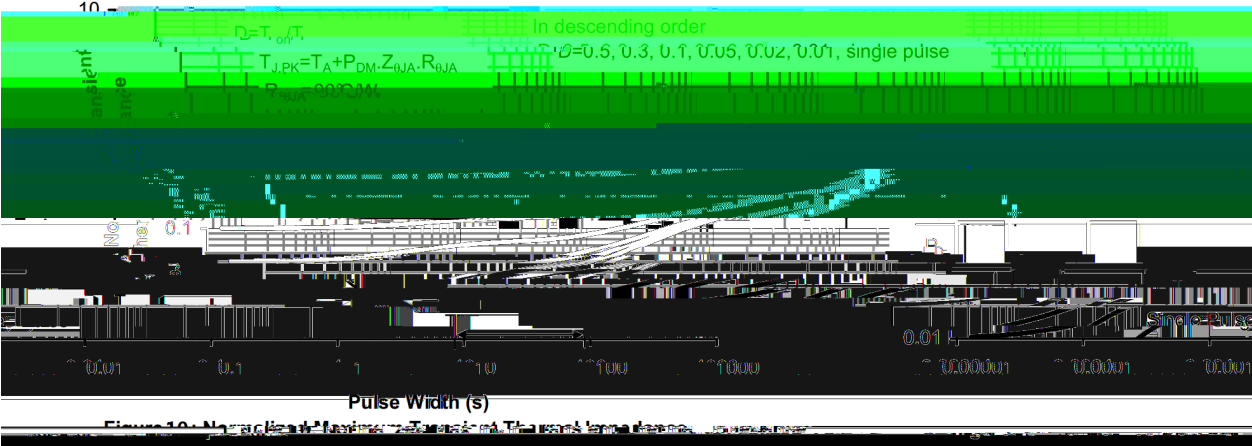
P-CHANNEL Electrical Characteristics(Ta=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=-250\mu A$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-40V$ $V_{GS}=0V$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-1.0	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V$ $I_D=-10A$		12	13	m Ω
		$V_{GS}=-4.5V$ $I_D=-10A$		17	20	m Ω
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		Ω
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	$t_{d(on)}$	$V_{DS}=-15V$ $V_{GS}=-10V$ $R_L=1\Omega$ $R_{GEN}=3\Omega$		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



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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 Åmm³)	
	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