TO-220 .> / / x N ?œ 3 « | o
N-CHANNEL MOSFET in a TO-220 Plastic Package.

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; R Z X G 2 U] 5 T - 8 K Y O Y Z G T I K , L G Y Z Y] O Z I N O T M .

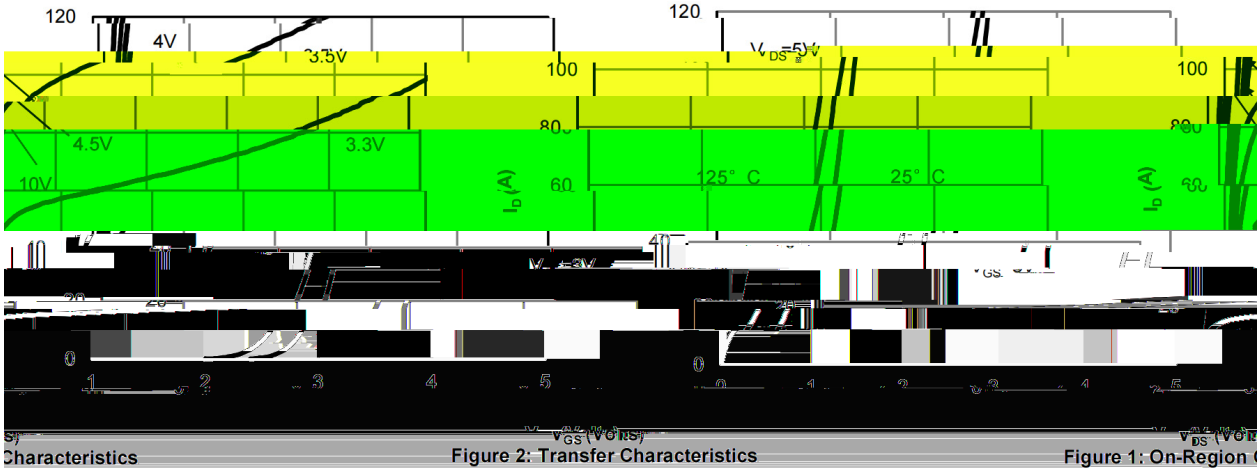
@ Parameter		Z Symbol	Rating	% y Unit
Drain-Source Voltage		V_{DSS}	40	V
Drain Current		I_D(Tc=25)	196	A
Pulsed Drain Current		I_{DM}	500	A
Gate-Source Voltage		V_{GS}	±20	V
Single Pulsed Avalanche Energy(L=0.5mH)		E_{AS}	561.8	mJ
Avalanche Current		I_{AS}	26.5	A
Total Power Dissipation		P_D(Tc=25)	347	W
Junction and Storage Temperature Range		T_J,T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	t 0 10s	R ' JA	15	- /W
	Steady-State		60	
Thermal Resistance-Junction to Case	Steady-State	R ' JC	0.36	

@ Parameter	Z Symbol	y ¡ Ú^ Test Conditions	´ 4 Min	` ” Typ	´ Ý Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	40			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=40V V_{GS}=0V			1	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V V_{DS}				

Q4ì ×? d / Electrical Characteristics(Ta=25 ;)

@ Parameter	Z Symbol	y ¡ Ú^ Test Conditions	´ 4 Min	` ” Typ	´ Ý Max	% y Unit
Total Gate Charge	Q_g(10V)	V_{GS}=10V V_{DS}=20V I_D=20A		70		nC
Total Gate Charge	Q_g(4.5V)			15		
Gate Source Charge	Q_{gs}			15		
Gate Drain Charge	Q_{gd}			22		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=20V R_L=1 R_{GEN}=3		15		ns
Turn-On Rise Time	t_r			30		
Turn-Off Delay Time	$t_{d(off)}$			54		
Turn-Off Fall Time	t_f			20		

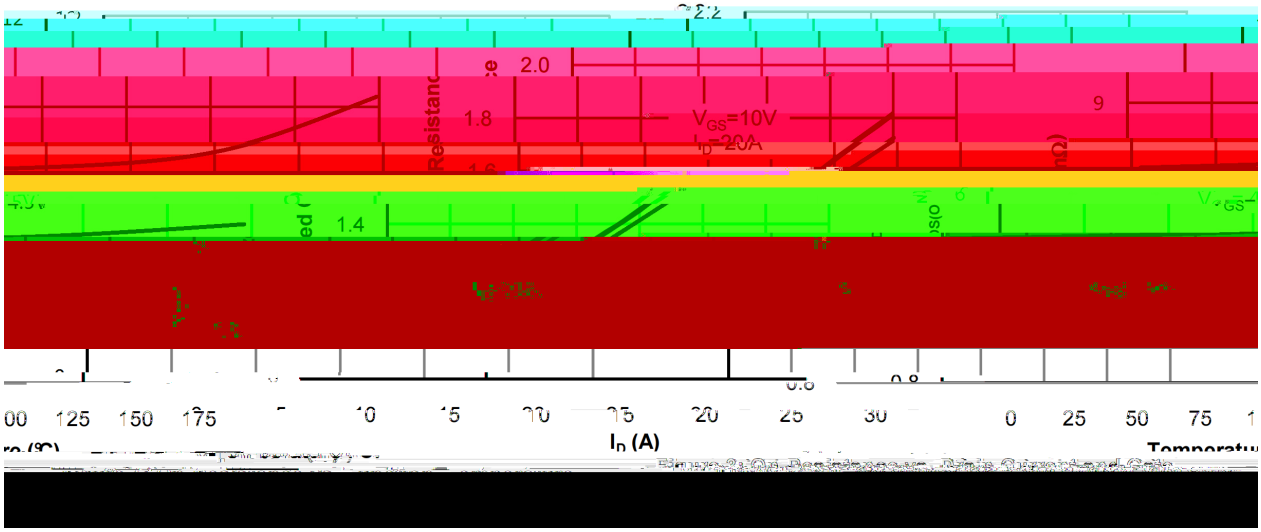
Ô? d ¢ / Electrical Characteristic Curve

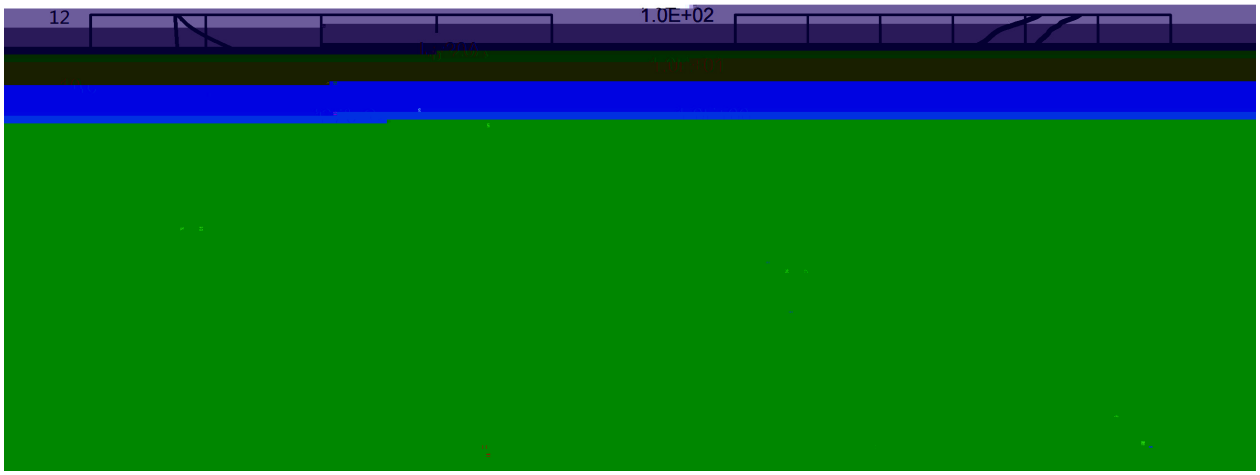


Characteristics

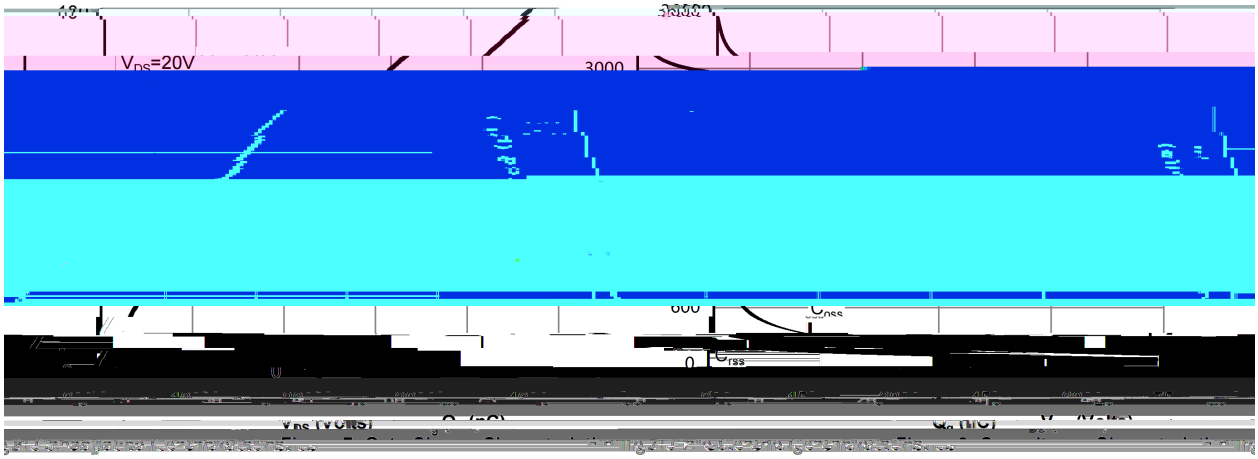
Figure 2: Transfer Characteristics

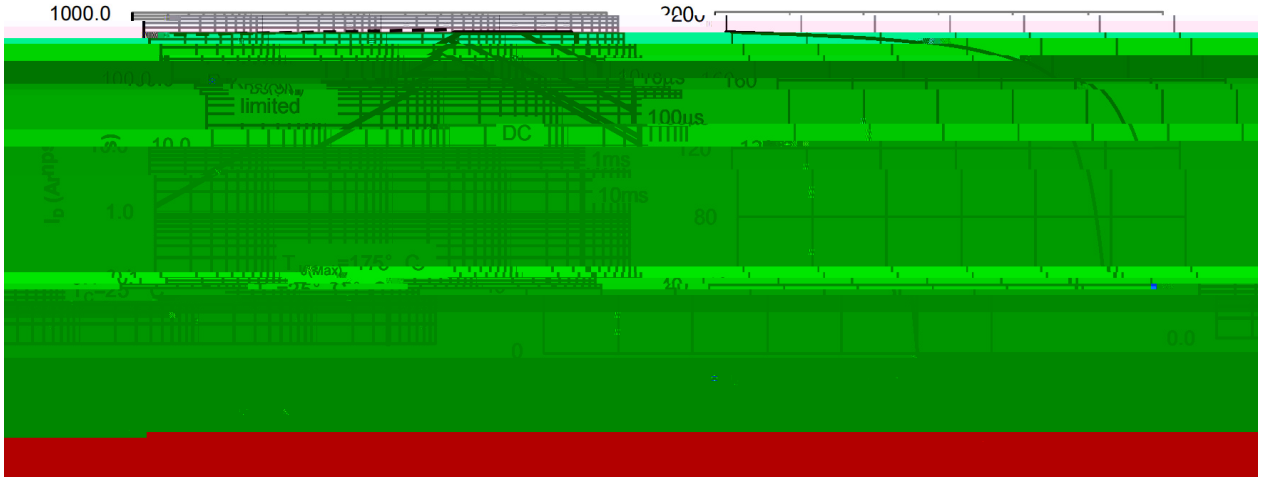
Figure 1: On-Region

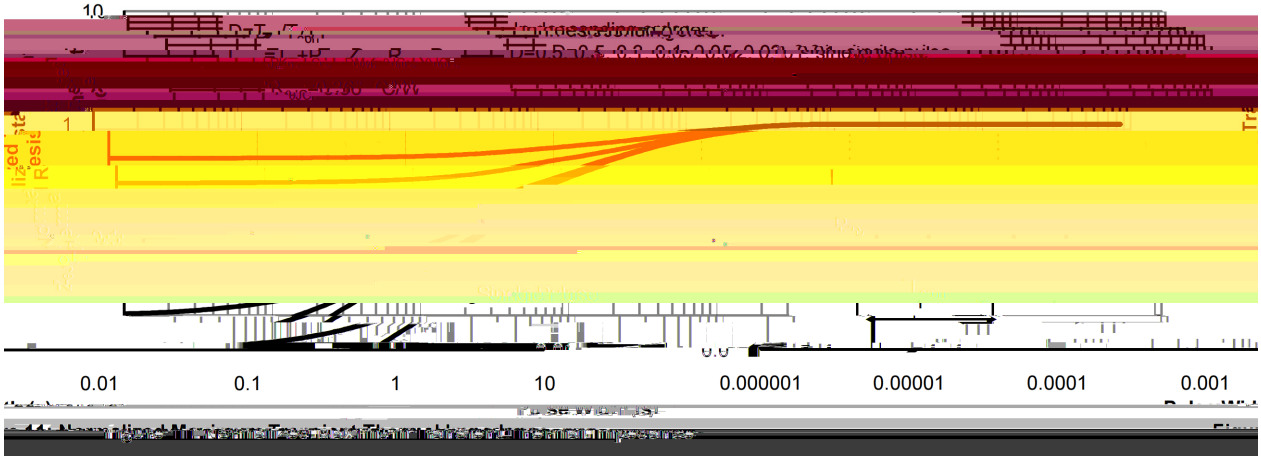




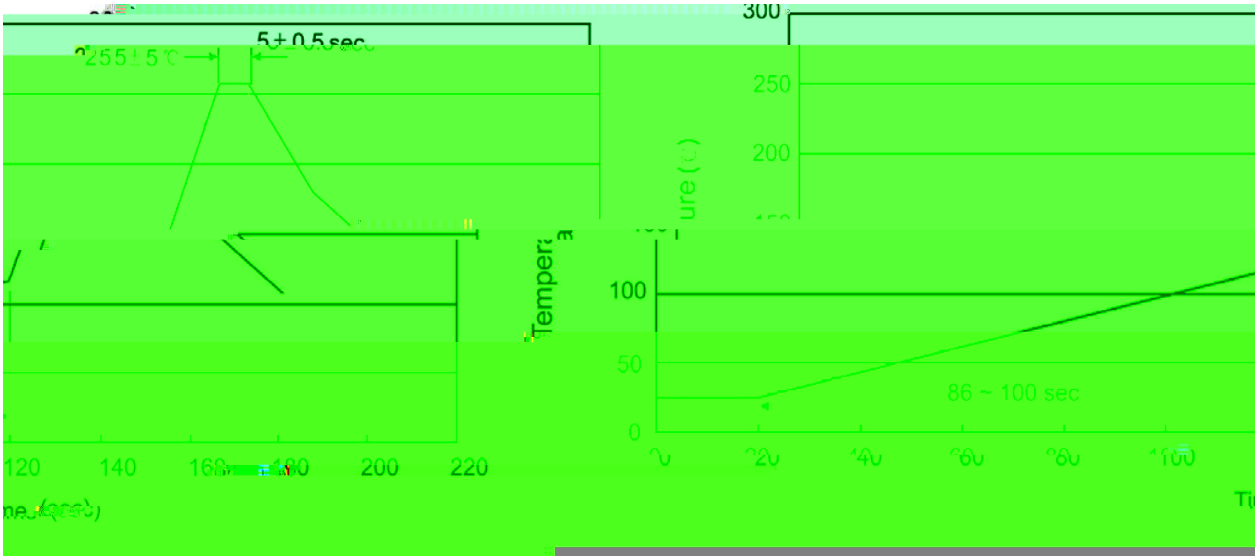
Ô? d ¢ / Electrical Characteristic Curve







G PD t ¢ (x /) / Temperature Profile for Dip Soldering(Pb-Free)



“ ¢ y

1o ˜ ‰ 25 ‰150 - k 60 ‰90sec;

2o Q 255 r5 - k 4 Ò 5 r0.5sec;

3o D N òi Ò0 , 2 ‰10 - /sec.

Note:

1.Preheating:25~150 - , Time:60~90sec.

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

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

´D /Cª p fl »] / Resistance to Soldering Heat Test Conditions

y 270 r5 - y 10 r1 sec. Temp.:270±5 Time:10±1 sec

G P Æ / Packaging SPEC.

^ x / BULK

Package Type 7>ß E	Units ;>ß ƒH					Dimension ;>ß p . (unit ˇ mm³)		
	Units/Bag />`	Bags/Inner Box >`/-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Bag >`	Inner Box -	Outer Box 1ç
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

ì x / TUBE

Package Type 7>ß E	Units ;>ß ƒH					Dimension ;>ß p . (unit ˇ mm³)		
	Units/Tube / 1×	Tubes/Inner Box 1× /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Tube 1×	Inner Box -	Outer Box 1ç
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

— y / Notices