

Rev.A Nov.-2022

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

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;RZXG 2U] 5T-8KYOYZGTIK,LGYZ Y]OZINOTM.

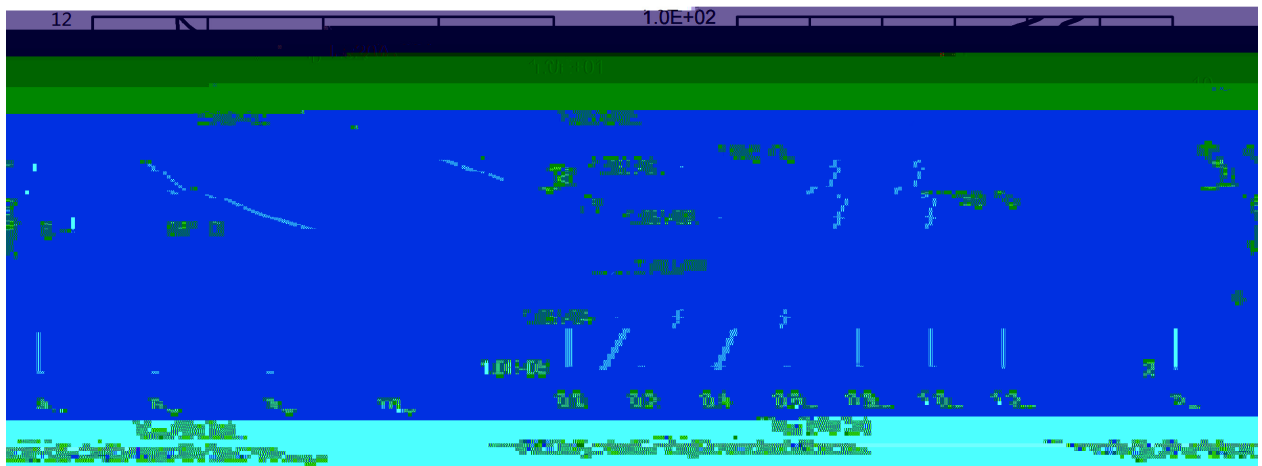
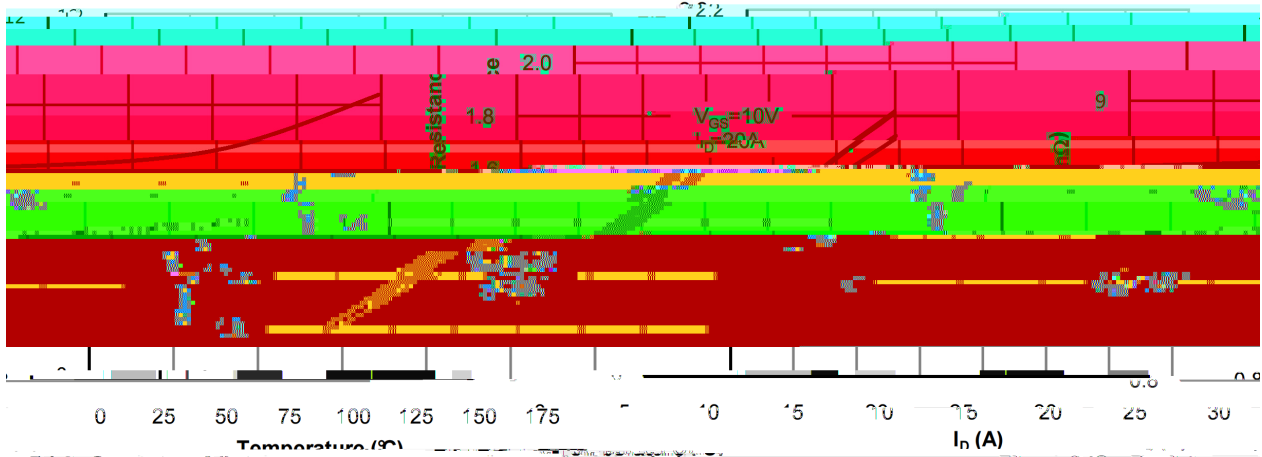
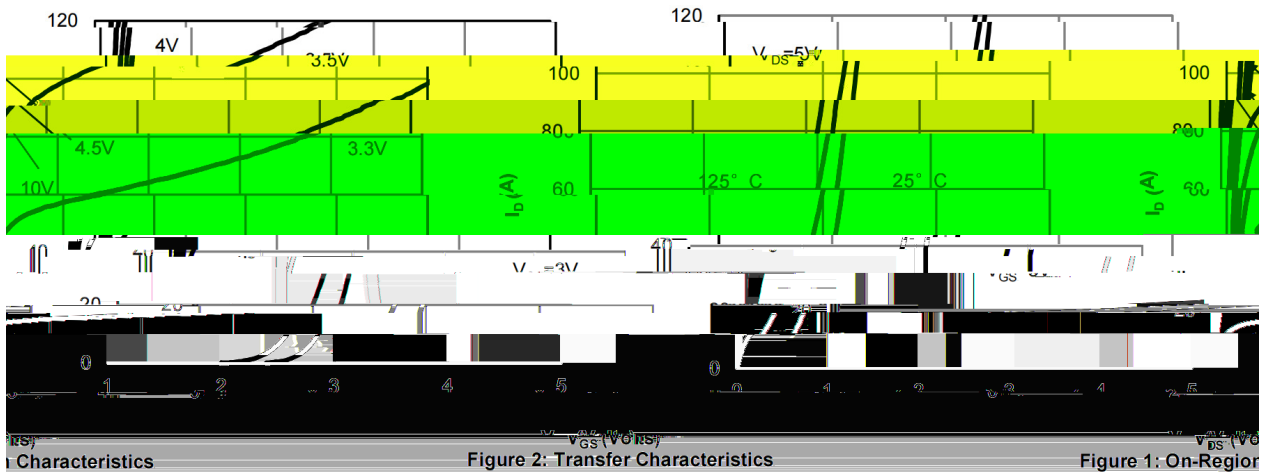
@ Parameter	Z Symbol	Rating	% y Unit
Drain-Source Voltage	V_{DSS}	40	V
Drain Current	$I_D(T_c=25^\circ C)$	196	A
Pulsed Drain Current	I_{DM}	500	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy(L=0.5mH)	E_{AS}	561.8	mJ
Avalanche Current	I_{AS}	26.5	A
Total Power Dissipation	$P_D(T_c=25^\circ C)$	347	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	t 010s	$R_{\theta JA}$	15
	Steady-State		60
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	0.36

@ Parameter	Z Symbol	y i 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}	$V_{GS}=\pm 20V$ V_{DS}				

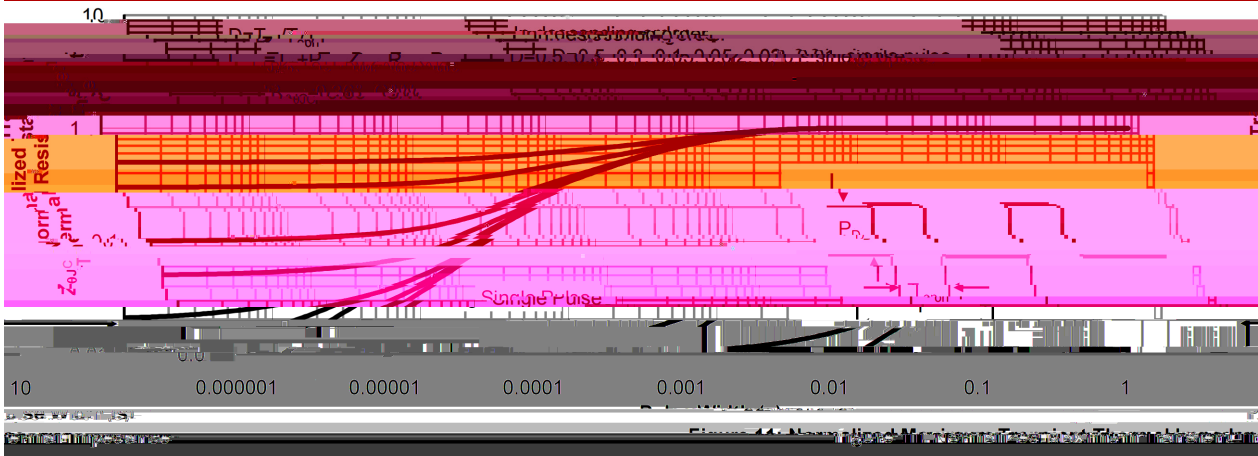
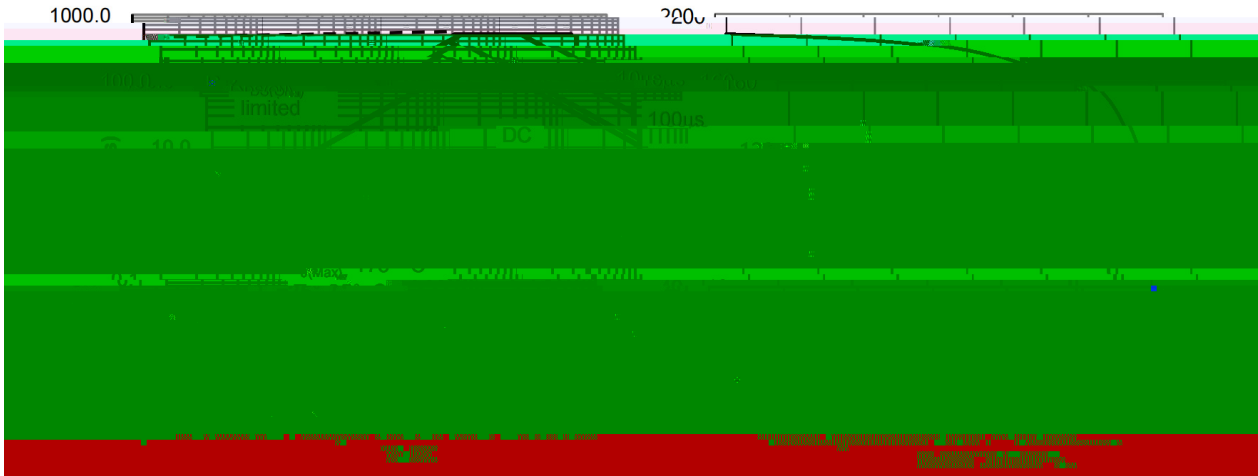
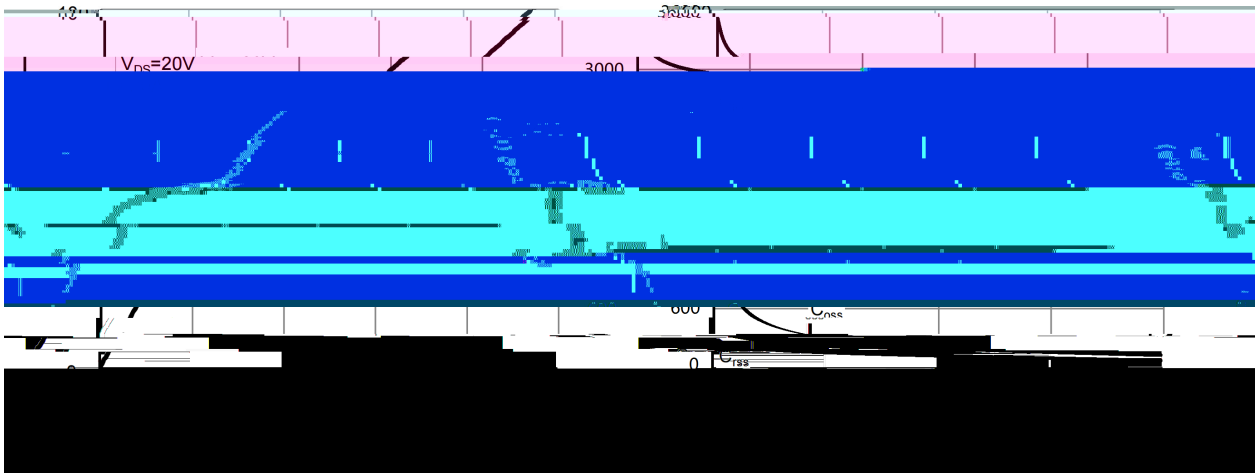
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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_g(10V)$	$V_{GS}=10V$ $V_{DS}=20V$ $I_D=20A$		70		nC
Total Gate Charge	$Q_g(4.5V)$			15		
Gate Source Charge	Q_{gs}			15		
Gate Drain Charge	Q_{gd}			22		
Turn-On Delay Time	$t_{d(on)}$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

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| <p>“ ¢ y</p> <p>1o ~ %o 25 %b50 - k 60 %@0sec;</p> <p>2o Q 255 r5 - k 4 Ò 5 r0.5sec;</p> <p>3o D N ò i ÒÒ , 2 %b0 - /sec.</p> | <p>Note:</p> <p>1.Preheating:25~150 - , Time:60~90sec.</p> <p>2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.</p> <p>3. Cooling Speed: 2~10 - /sec.</p> |
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‘D /Cª p fl »]

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

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Package Type 7>β E	Units ;>β fH					Dimension ;>β p . (unit ~ 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>β E	Units ;>β fH					Dimension ;>β p . (unit ~ mm³)		
	Units/Tube / 1x	Tubes/Inner Box 1x/-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Tube 1x	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

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