TO-252 .> / / x N ?ú 3 « | • ’ož
N-CHANNEL MOSFET in a TO-252 Plastic Package.

V_{DS} (V) = 100V I_D =37A (V_{GS}

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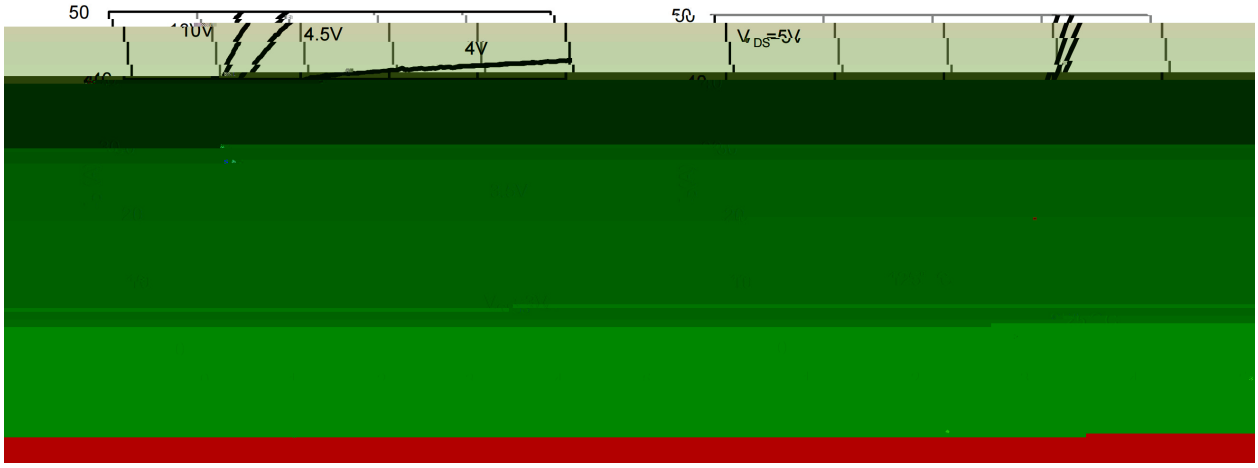
@ ƒ Parameter		… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage		V_{DSS}	100	V
Drain Current		I_D(Tc=25)	37	A
Drain Current - Pulsed		I_{DM}	117	A
Gate-Source Voltage		V_{GS}	±20	V
Avalanche Current		I_{AS}	7	A
Single Pulsed Avalanche Energy		E_{AS}	14.4	mJ
Power Dissipation		P_D(Tc=25)	68	W
Storage Temperature Range		T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	t 0 10s	R ©JA	20	/W
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	R ©JC	1.84	

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@ 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	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=100V V_{GS}=0V			1	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=20A		20	25	m
		V_{GS}=4.5V I_D=10A		25	35	m
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A			1.2	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		820		pF
Output Capacitance	C_{oss}			475		
Reverse Transfer Capacitance	C_{rss}			35		
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		1.9		
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=50V I_D=9A		17		nC
Total Gate Charge	$Q_{g(4.5V)}$			9		
Gate Source Charge	Q_{gs}			3		
Gate Drain Charge	Q_{gd}			3.5		

Rev.A Jun.-2023

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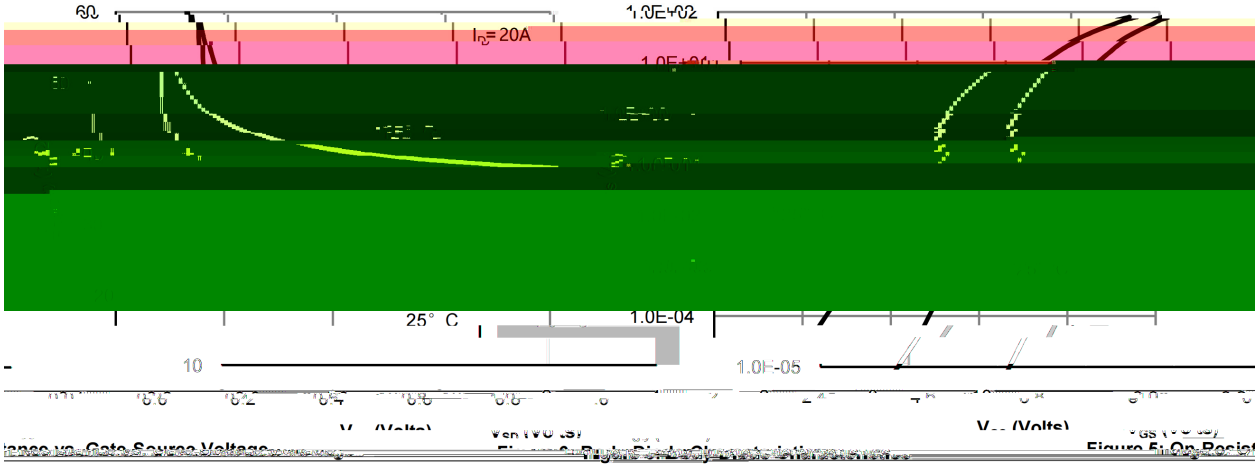
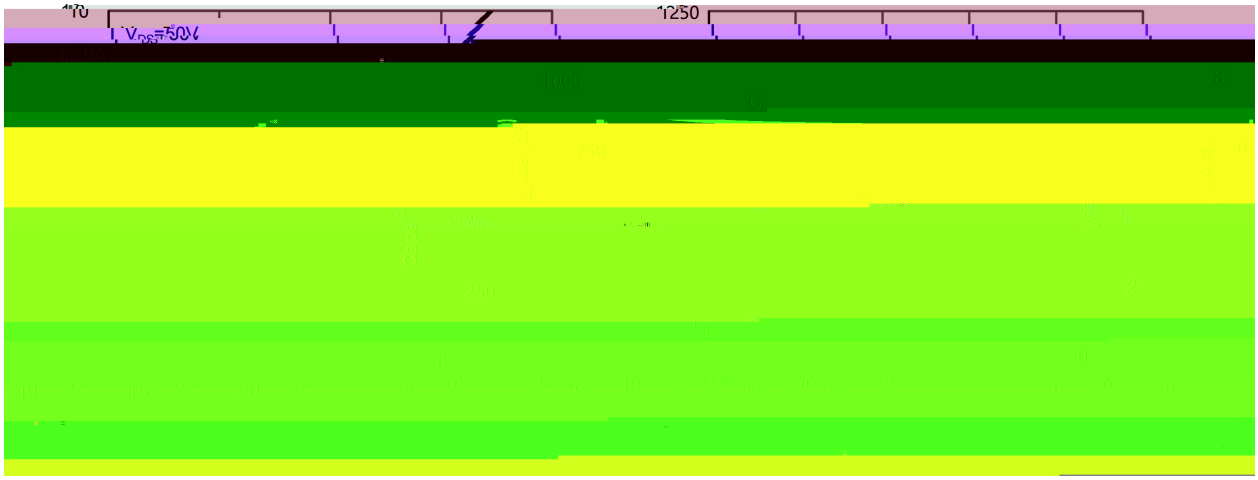
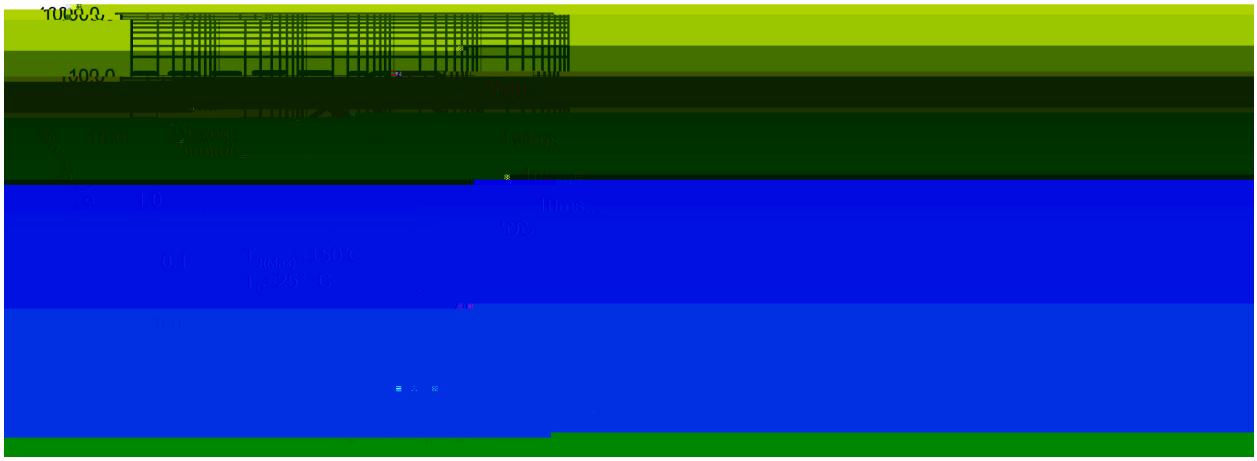
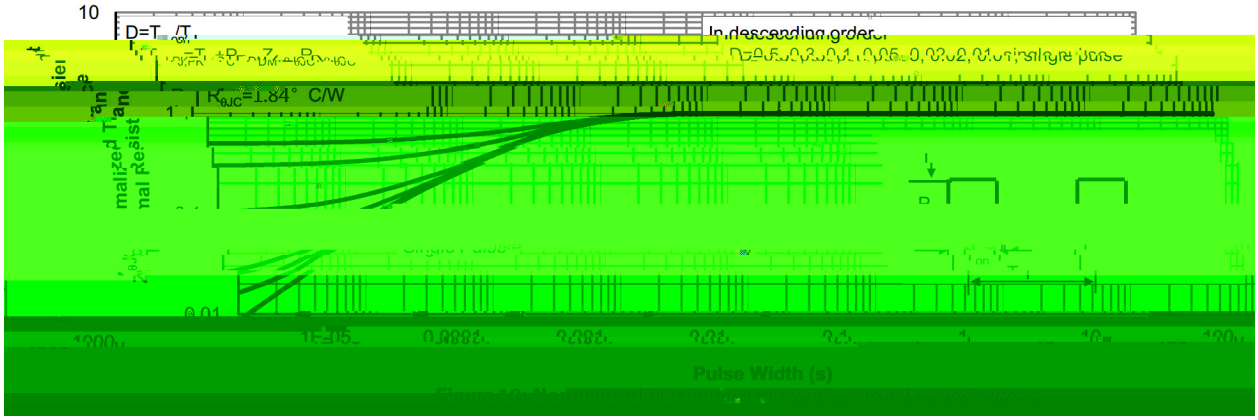


Figure 5: On-Resistance vs. Gate-Source Voltage Figure 6: Body-Diode Characteristics Figure 7: On-Region

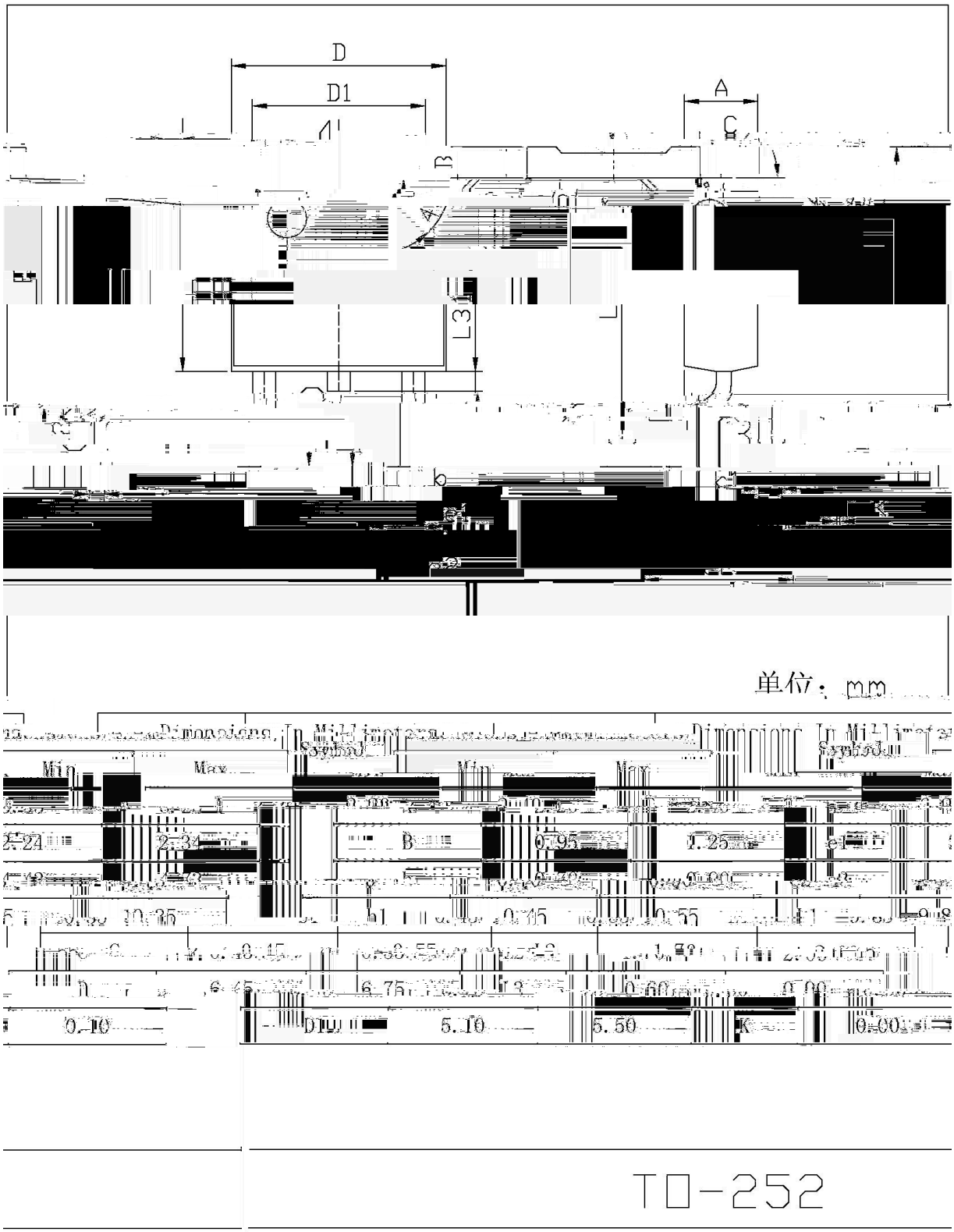
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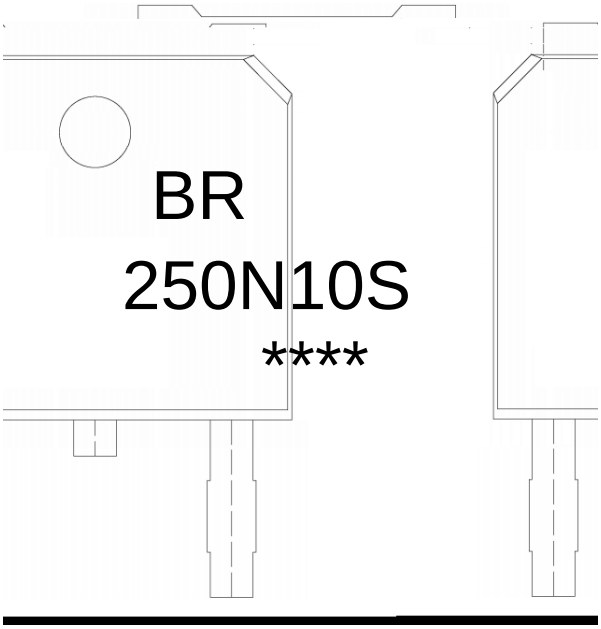




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