

Rev.A Jun.-2023

TO-252 N-CHANNEL MOSFET in a TO-252 Plastic Package.

$V_{DS} = 100V$   $I_D = 37A$  ( $V_{GS} = 10V$ )  $R_{\theta(j-c)} = 1.52$   $R_{\theta(c-a)} = 0.00234$

参数表

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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	100	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	37	A
Drain Current - Pulsed	$I_{DM}$	117	A
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Avalanche Current	$I_{AS}$	7	A
Single Pulsed Avalanche Energy	$E_{AS}$	14.4	mJ
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	68	W
Storage Temperature Range	$T_{stg}$	-55 ~ 150	
Thermal Resistance-Junction to Ambient	t 0 10s	$R_{\theta JA}$	20
	Steady-State		50
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	1.84

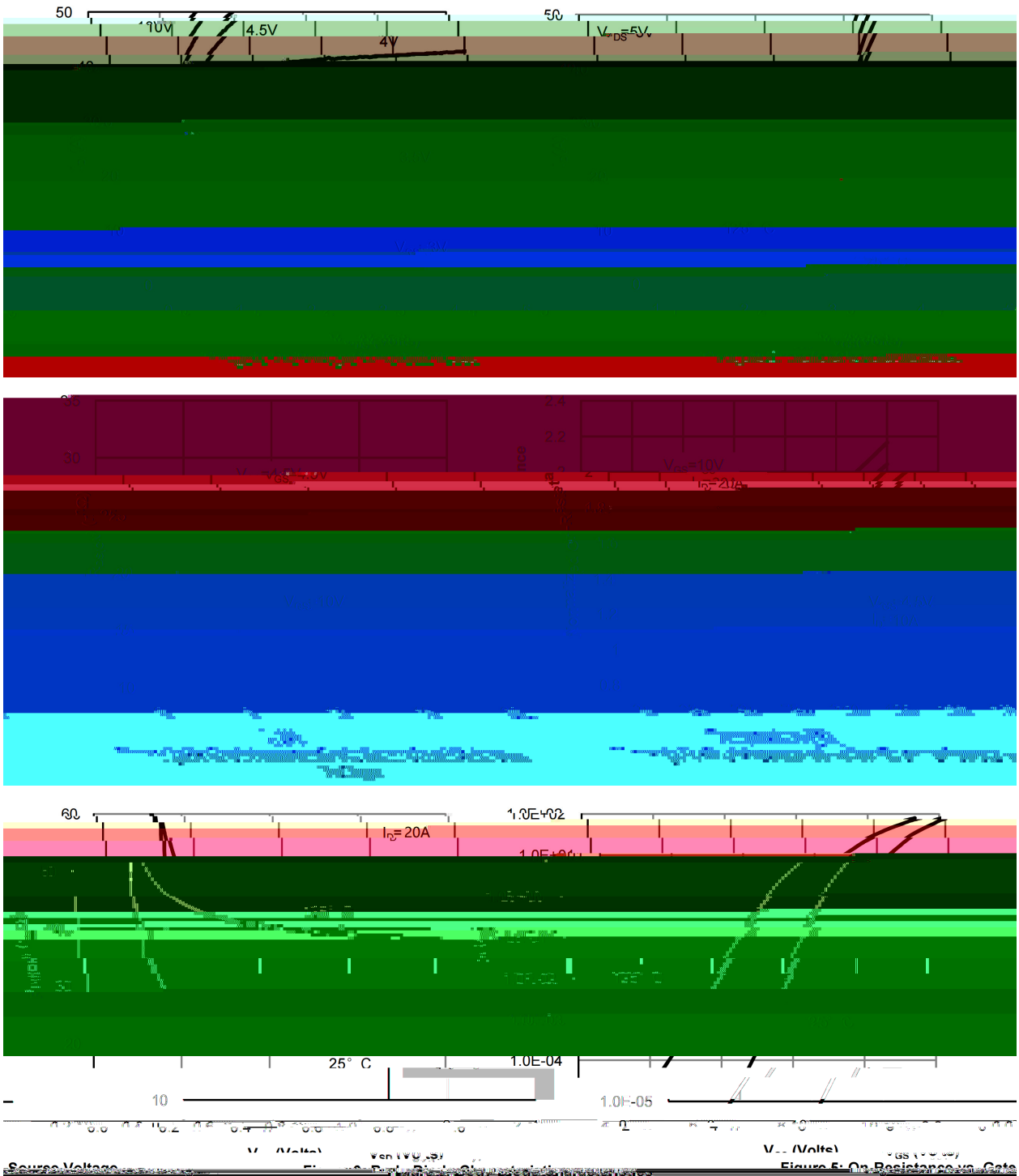
参数表

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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DS}$	$V_{GS}=0V$ $I_D=250\text{A}$	100	109		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=100V$ $V_{GS}=0V$			1	A
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 20V$ $V_{DS}=0V$			$\pm 0.1$	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\text{A}$	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	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		820		pF
Output Capacitance	$C_{oss}$			475		
Reverse Transfer Capacitance	$C_{rss}$			35		
Gate resistance	$R_g$	$V_{GS}=0V$ $V_{DS}=0V$ $f=1\text{MHz}$		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		



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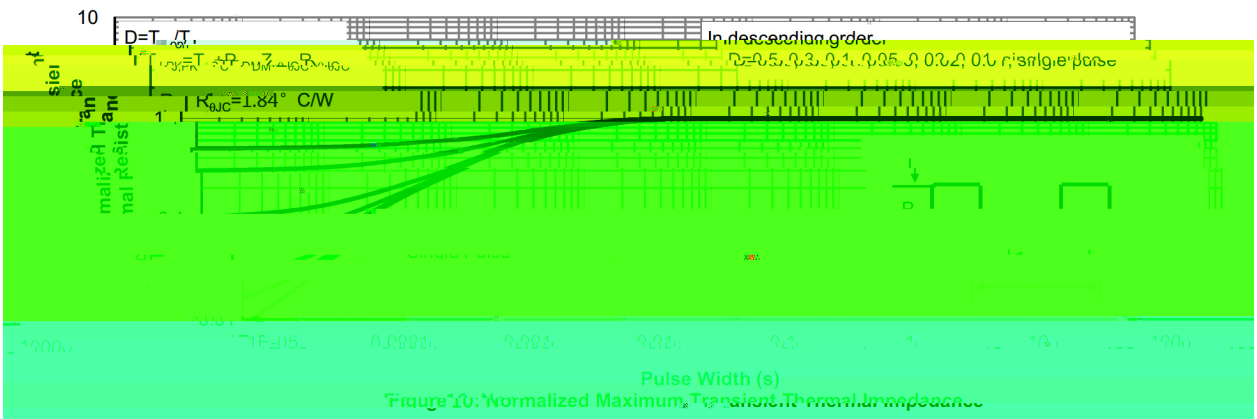
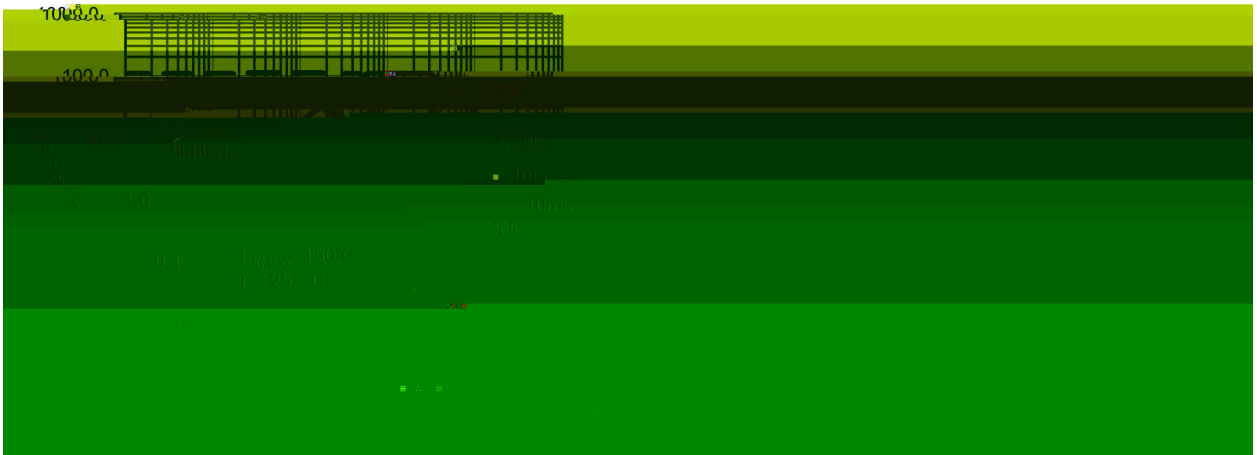
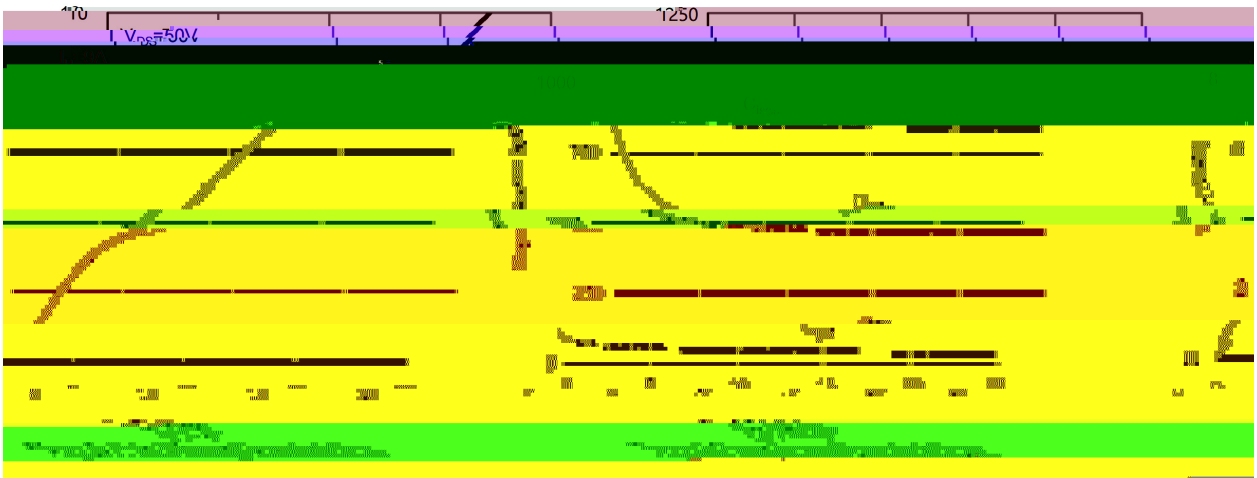
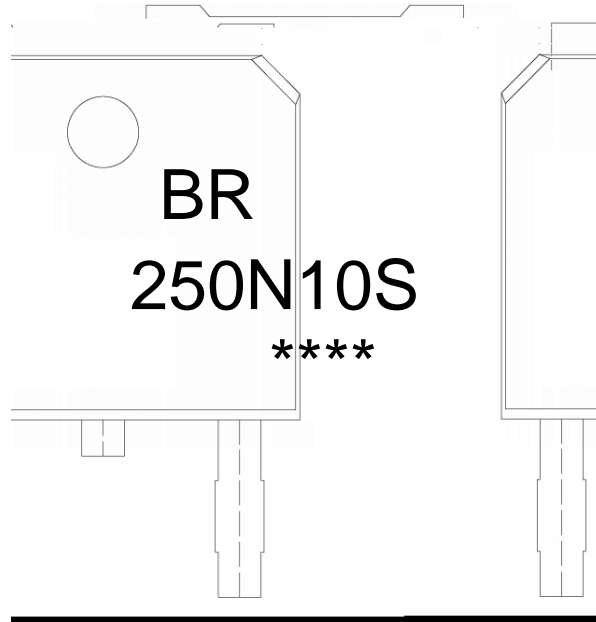


Figure 10: Normalized Maximum Transient Thermal Impedance



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Note:

BR:                    Company Code  
 250N10S:            Product Type Code  
 \*\*\*\*:                 Lot No. Code, code change with Lot No

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