

Rev.A Jun.-2023

TO-252 3-pin N-channel MOSFET in a TO-252 Plastic Package.

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

参数表

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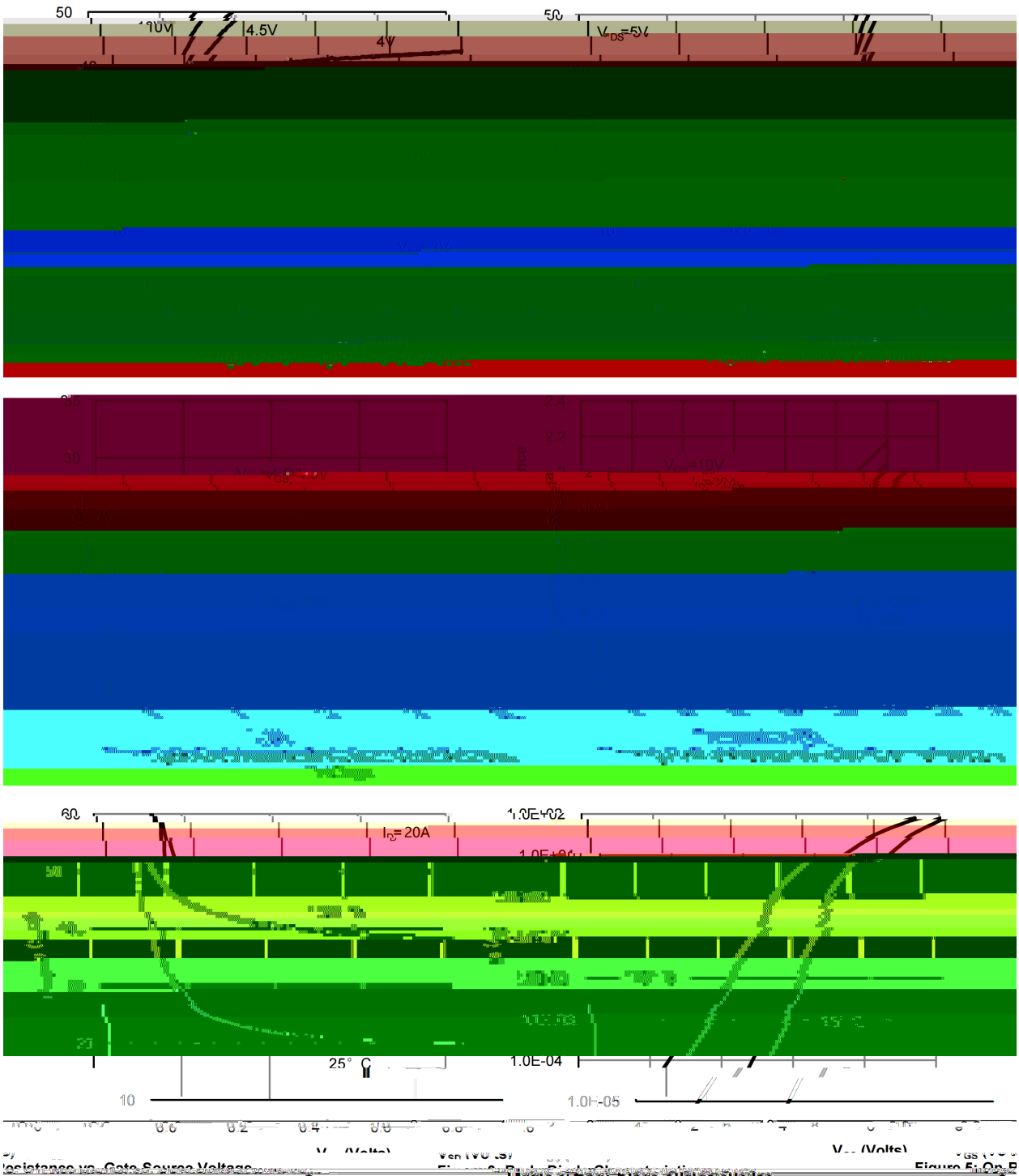
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	37	A
Drain Current - Pulsed	I_{DM}	117	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AS}	7	A
Single Pulsed Avalanche Energy	E_{AS}	14.4	mJ
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	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

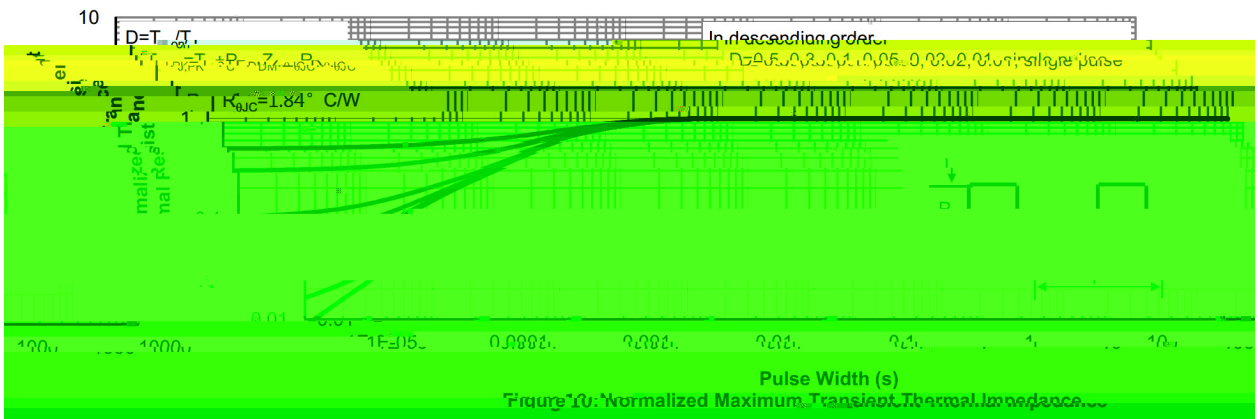
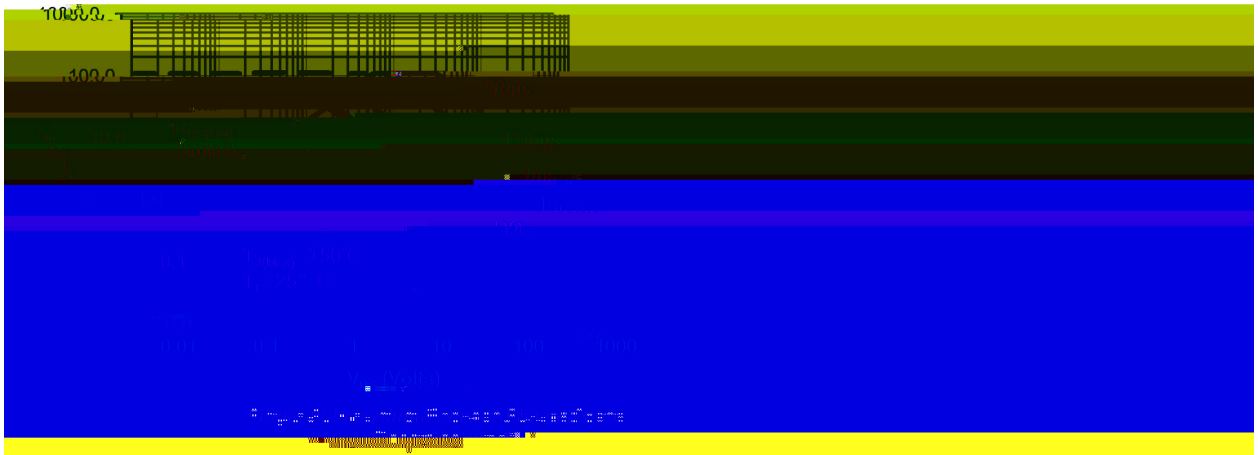
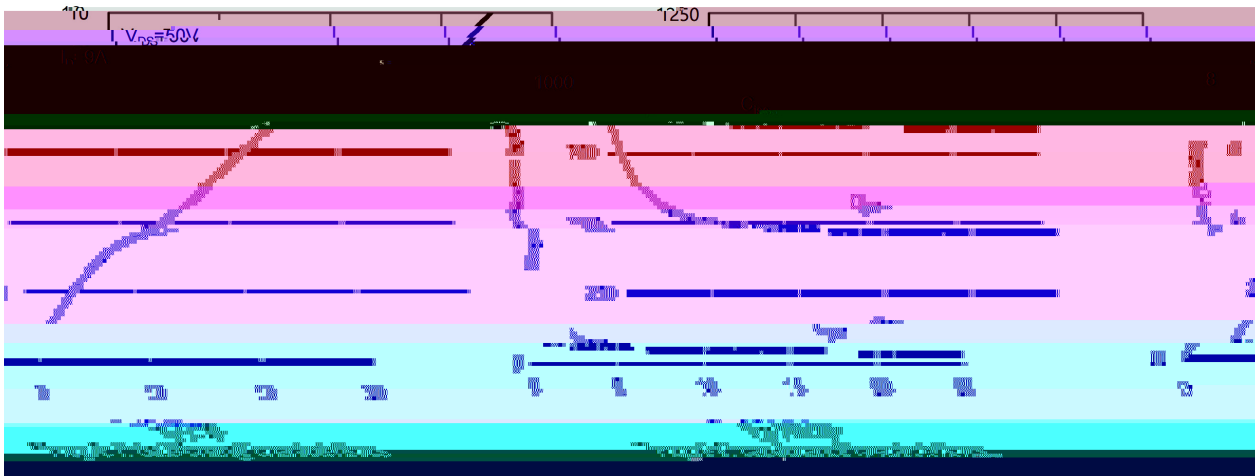
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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=250\text{A}$	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$ $V_{GS}=0V$			1	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 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		

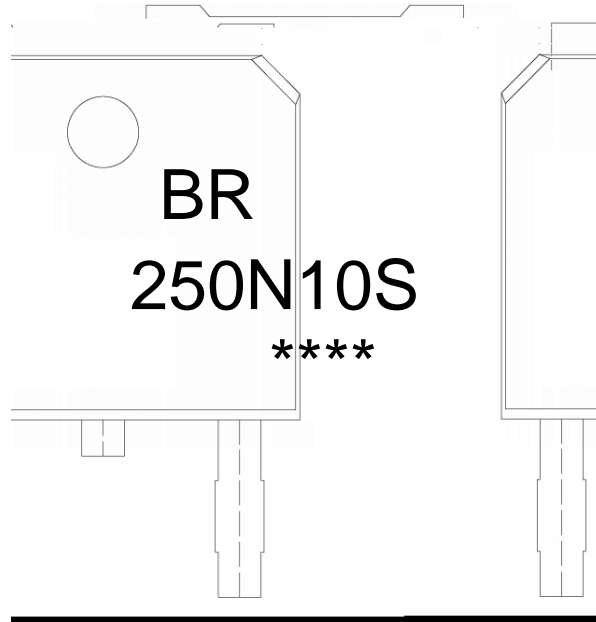
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Note:

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

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