

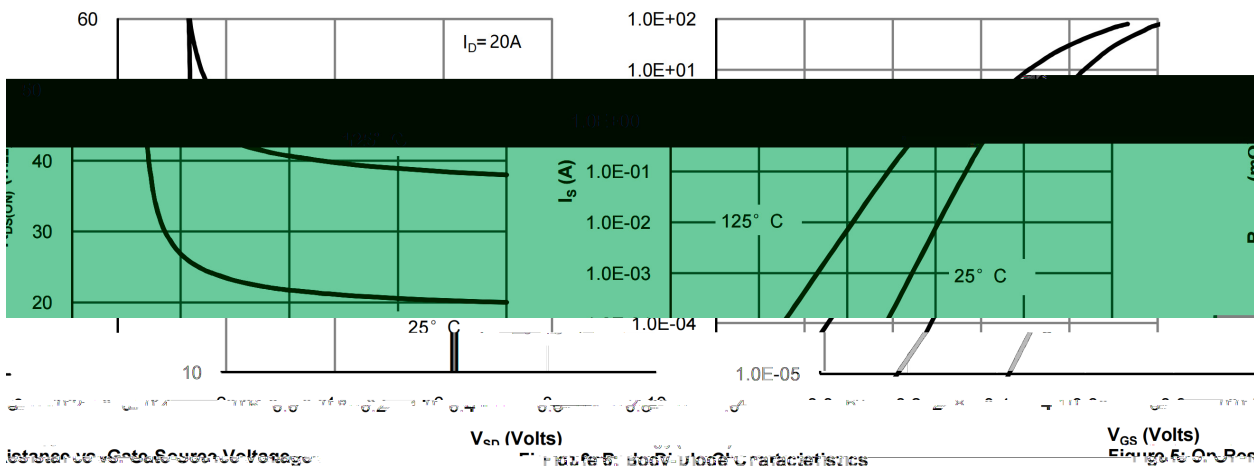
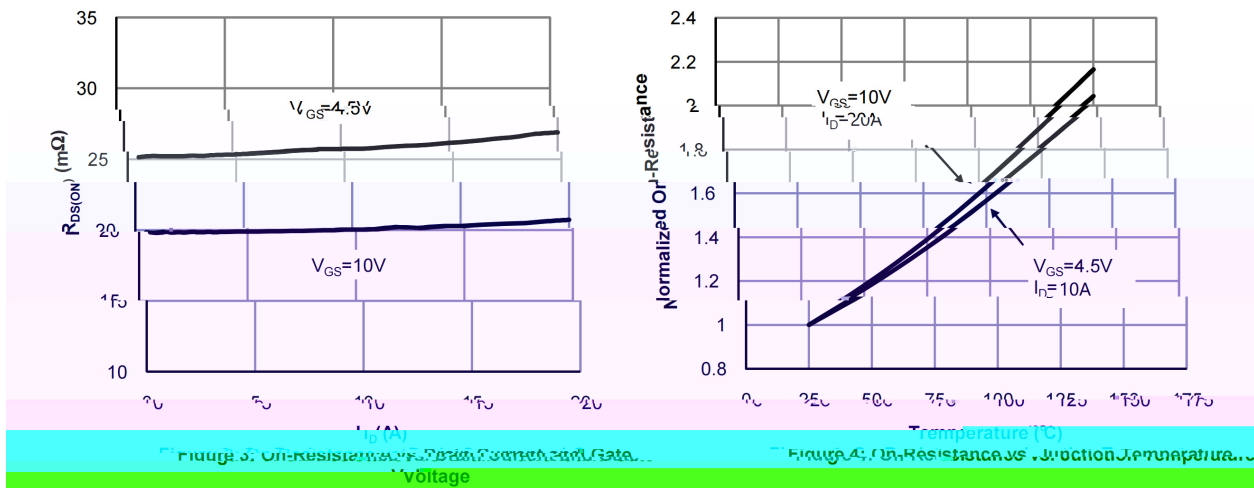
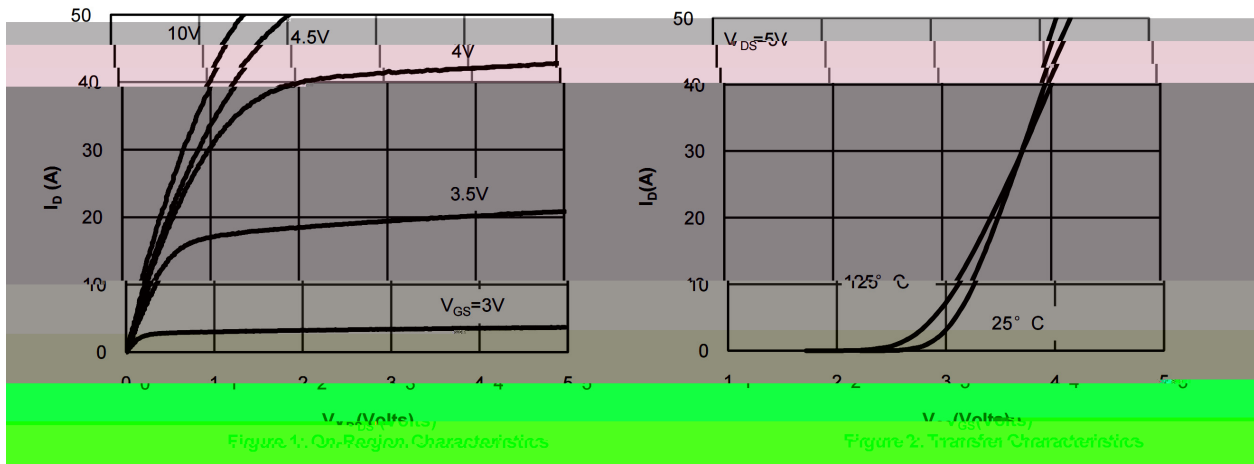
Rev.A Jun.-2023

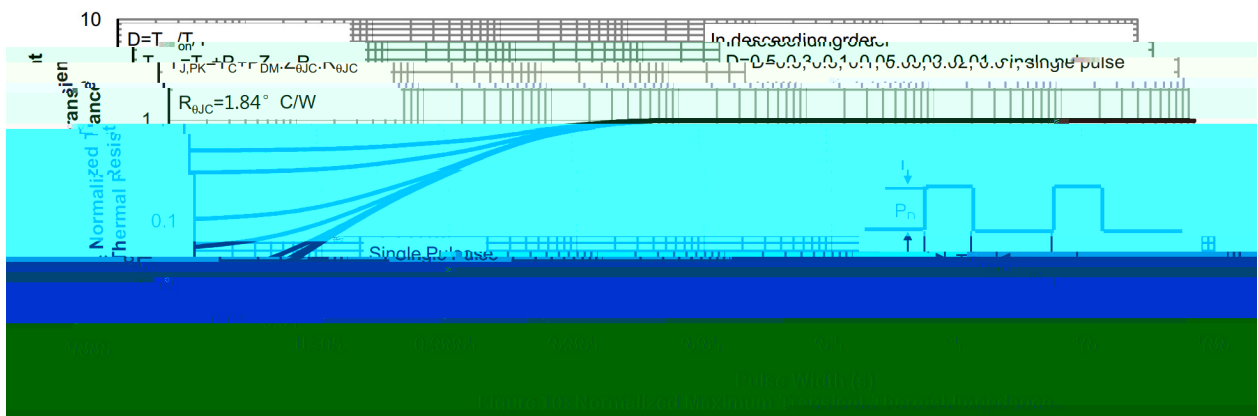
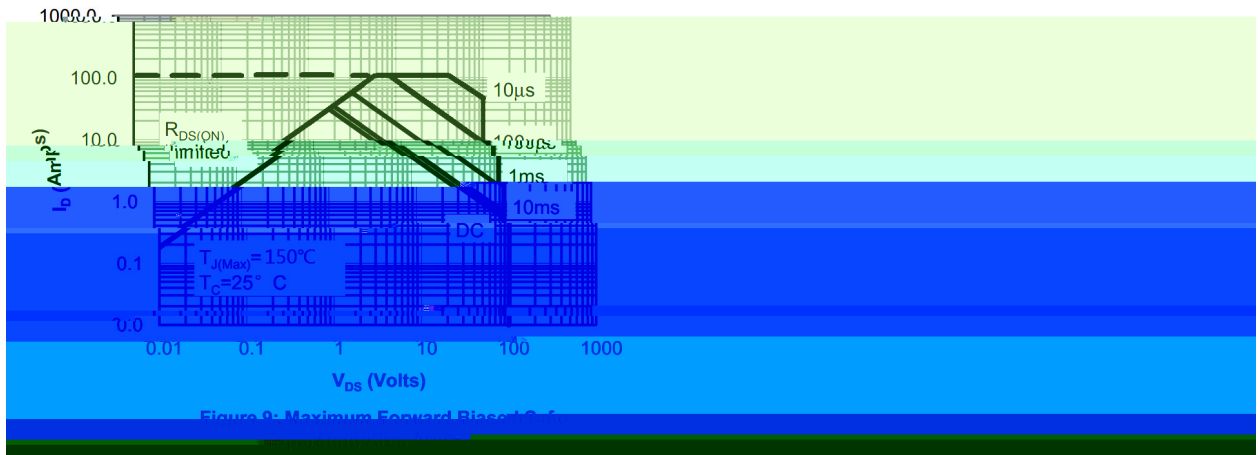
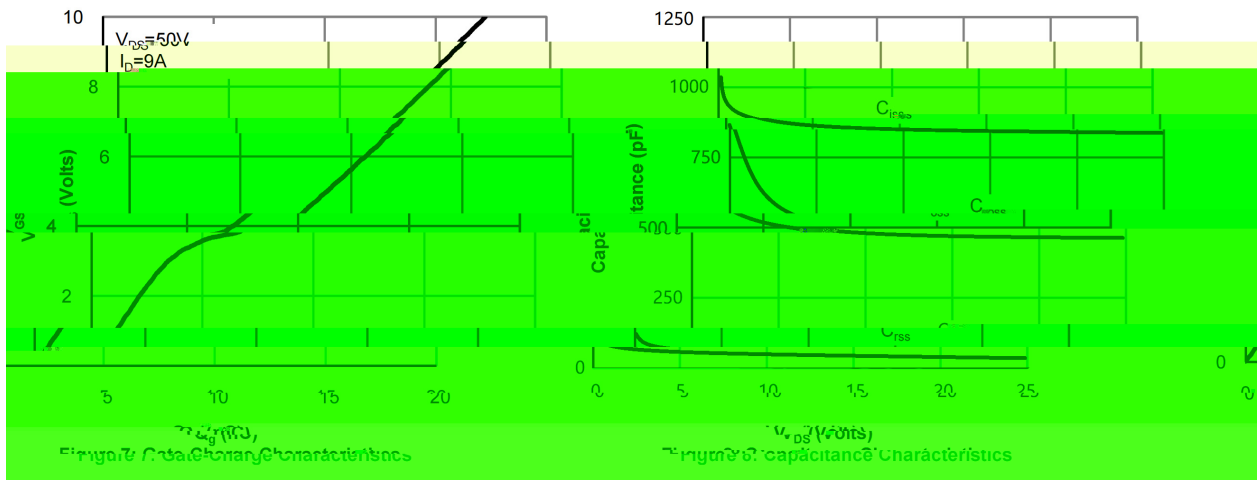
TO-252 N
N-CHANNEL MOSFET in a TO-252 Plastic Package.

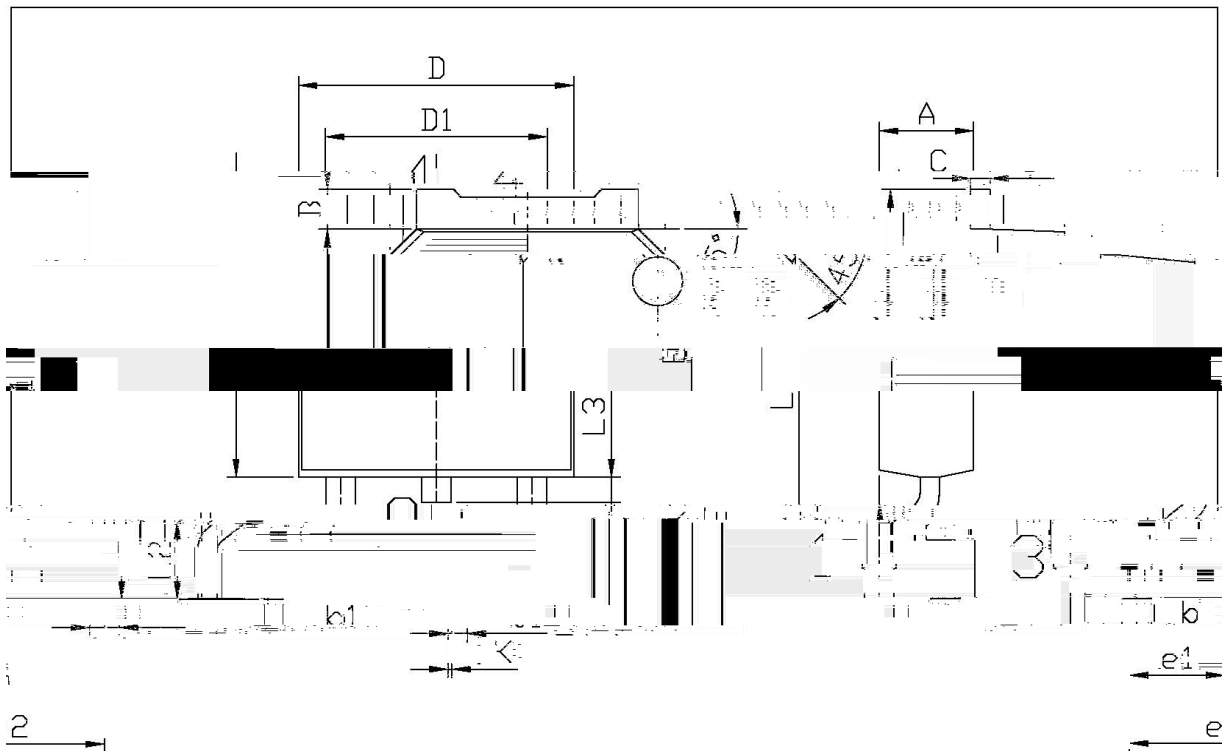
$V_{DS} (V) = 100V$ $I_D = 37A (V_{GS}$

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	$t \leq 10\text{s}$	$R_{\theta JA}$	20	$^{\circ}\text{C/W}$
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	1.84	

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



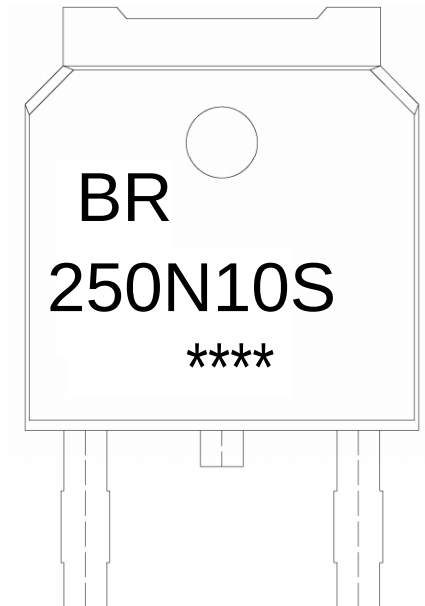




单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	6.25	6.75	D	2.20	2.40
B	2.24	2.34	B	0.95	1.25
C	4.23	4.73	C	0.70	0.90
L1	9.85	10.35	L1	0.45	0.50
L3	0.45	0.55	L3	1.70	2.00
L3	0.60	0.90	D1	6.45	6.75
K	5.50	6.10	K	0.10	0.15

TO-252



BR

Note:

BR: Company Code

250N10S: Product Type Code

****: Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)

- 1

150 180

60 90sec;
- 2

245 5

5 0.5sec;
- 3

2 10

/sec.
- Note:

1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3. Cooling Speed: 2~10 /sec.

260 5

10 1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL