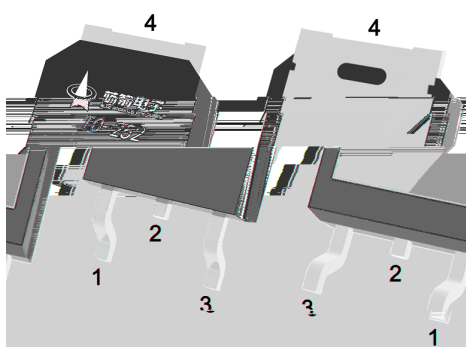
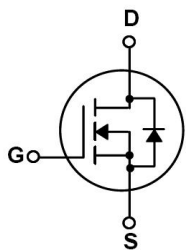


TO-252 N
N-CHANNEL MOSFET in a TO-252 Plastic Package.

$V_{DS} (V) = 20V$ $I_D = 95A (V_{GS} = \pm 20V)$
 $R_{DS(ON)} @ 4.5V \leq 4mR (Typ. 3.7mR)$
 $R_{DS(ON)} @ 2.5V \leq 6mR (Typ. 5.5mR)$
 $R_{DS(ON)} @ 2.0V \leq 15mR (Typ. 8mR)$
。 HF Product.。

POL DC/DC
DC/DC Converters in Computing, Servers, and POL, Battery protection switch.



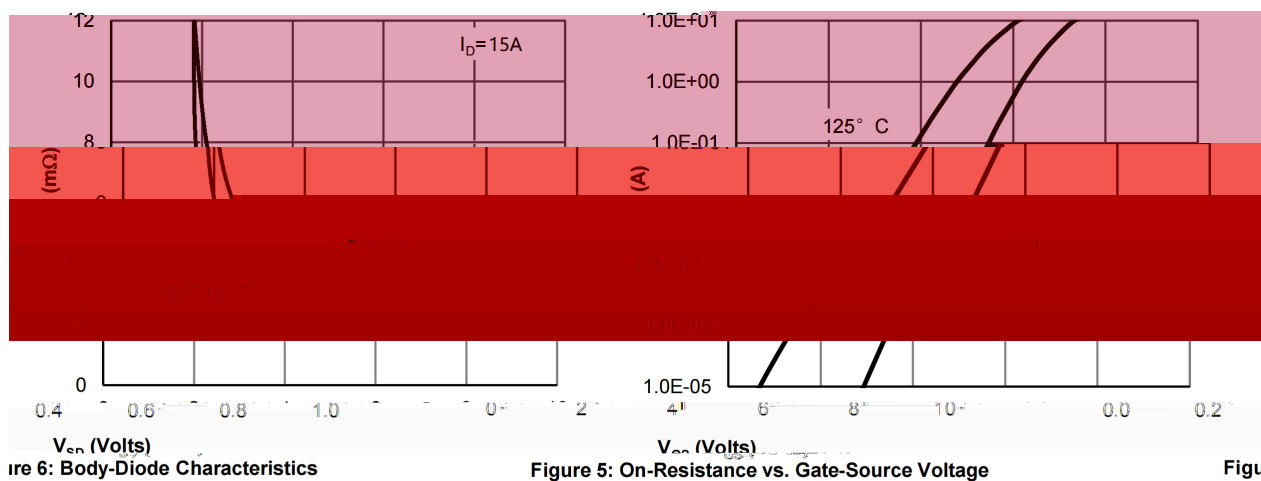
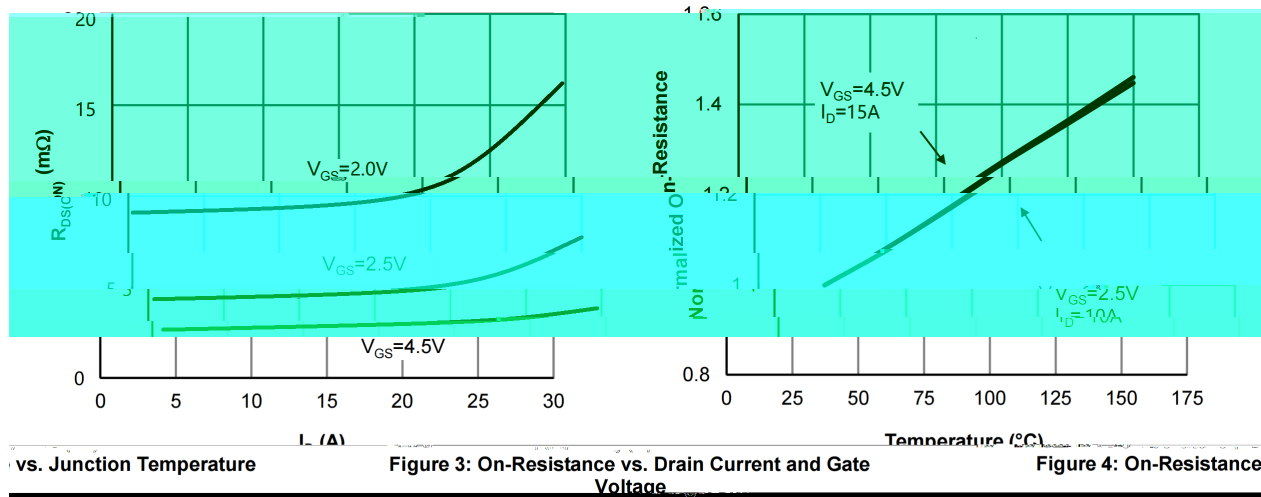
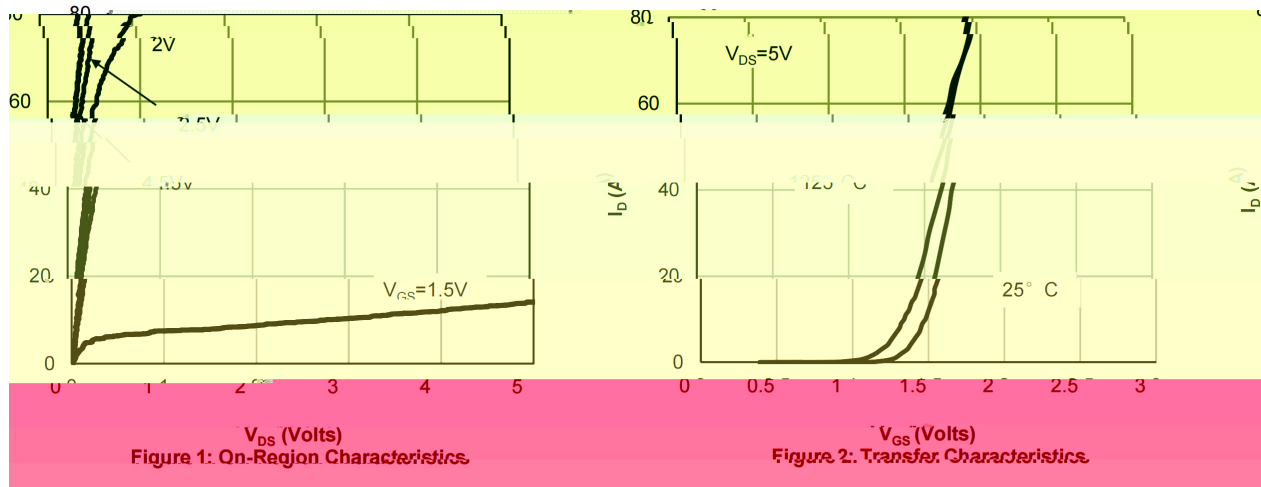
PIN1 G PIN 2 D PIN 3 S PIN 4 D

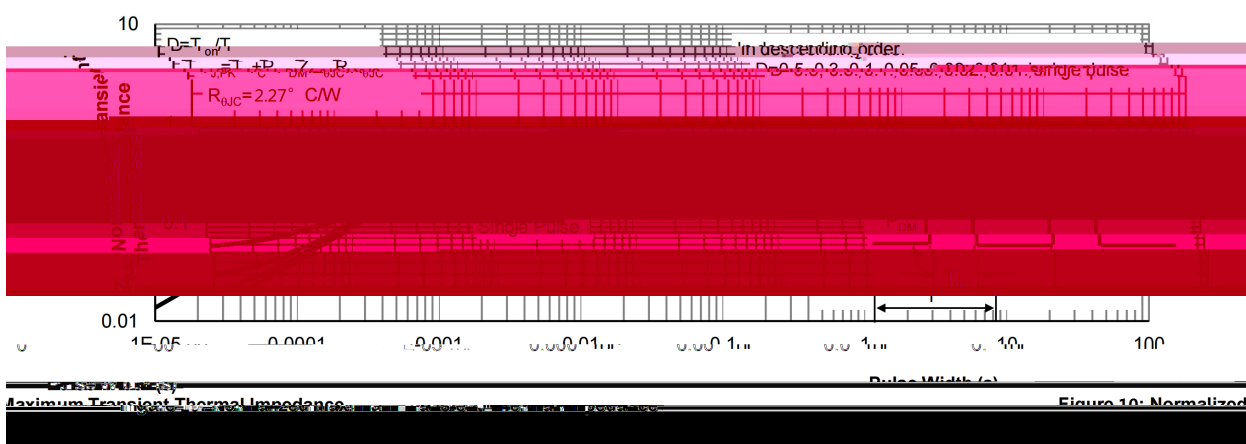
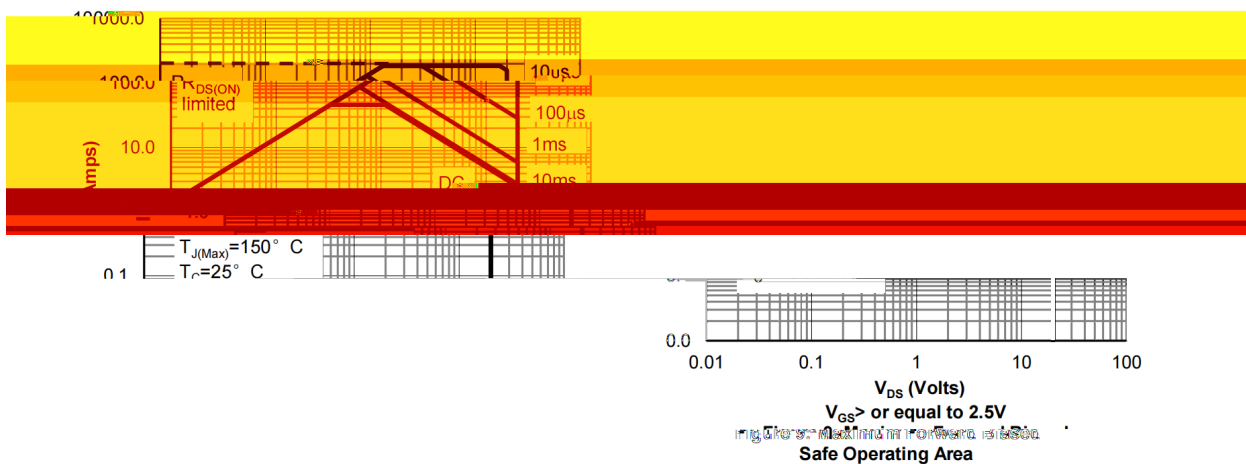
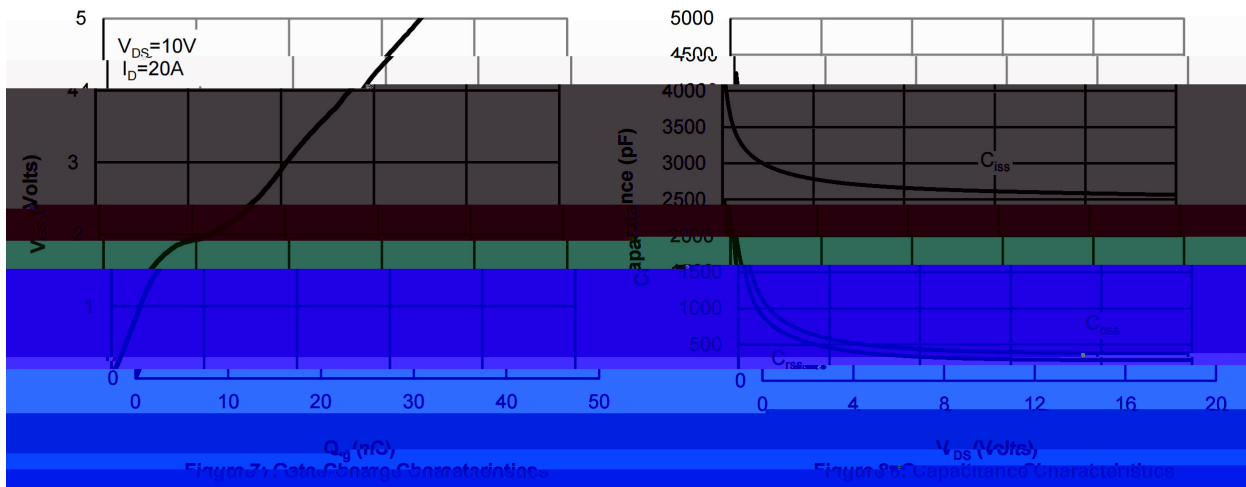
See Marking Instructions.

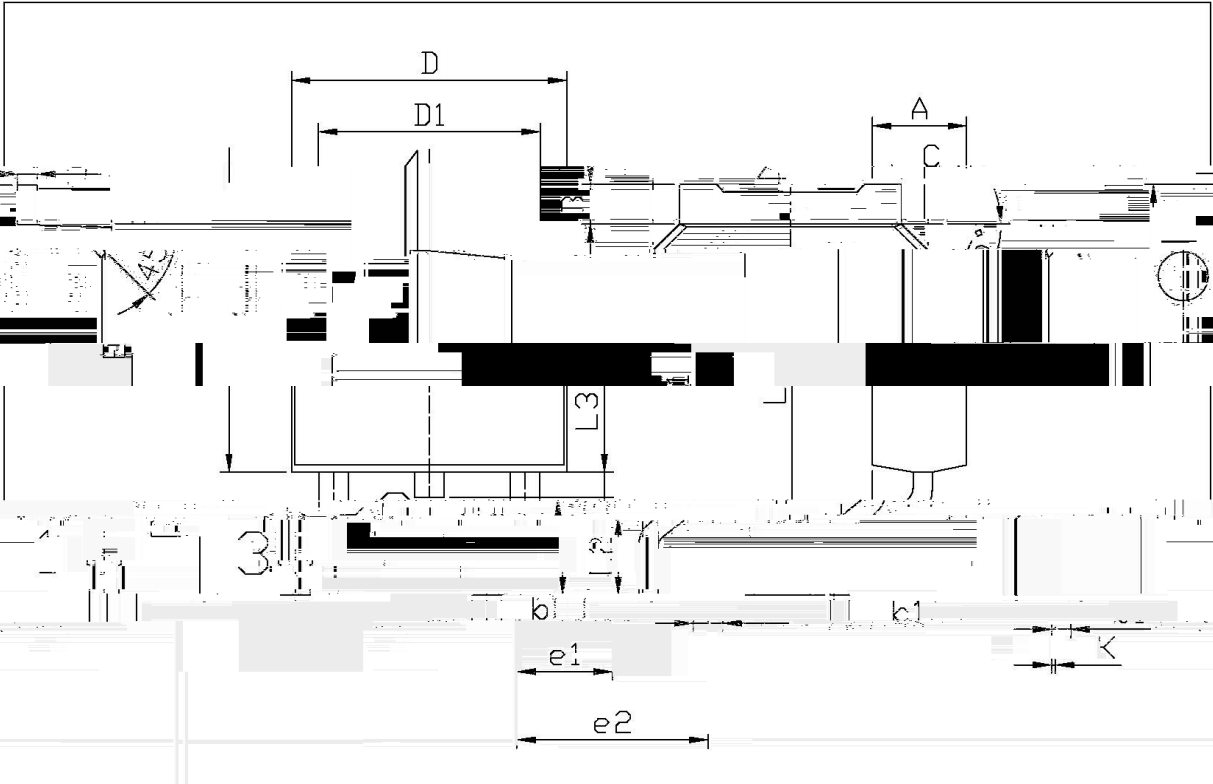
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	20	V
Drain Current		$I_D(T_c=25^{\circ}C)$	95	A
Drain Current - Pulsed		I_{DM}	212	A
Gate-Source Voltage		V_{GS}	± 12	V
Avalanche Current		I_{AS}	24	A
Single Pulsed Avalanche Energy		E_{AS}	201	mJ
Power Dissipation		$P_D(T_c=25^{\circ}C)$	55	W
Storage Temperature Range		T_{stg}	-55~150	$^{\circ}C$
Thermal Resistance-Junction to Ambient	$t \leq 10s$	$R_{\theta JA}$	20	$^{\circ}C/W$
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	2.27	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=250 A$	20	24		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V$ $V_{GS}=0V$			1.0	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 12V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 A$	0.4	0.7	1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5V$ $I_D=15A$		3.7	4	m
		$V_{GS}=2.5V$ $I_D=10A$		5.5	6	
		$V_{GS}=2.0V$ $I_D=6.0A$		8	15	
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.25	V
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$, $f=1MHz$		2.2		
Input Capacitance	C_{iss}	$V_{DS}=10V$ $V_{GS}=0V$ $f=1.0MHz$		2700		pF
Output Capacitance	C_{oss}			370		
Reverse Transfer Capacitance	C_{rss}			360		
Total Gate Charge	$Q_g(4.5V)$	$V_{GS}=4.5V$ $V_{DS}=10V$ $I_D=20A$		31		nC
Gate Source Charge	Q_{gs}			5.2		
Gate Drain Charge	Q_{gd}			8		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=10V$ $R_L=0.5\ \Omega$ $R_{GEN}=3$		7.5		ns
Turn-On Rise Time	t_r			15		
Turn-Off Delay Time	$t_{d(off)}$			72		
Turn-Off Fall Time	t_f					



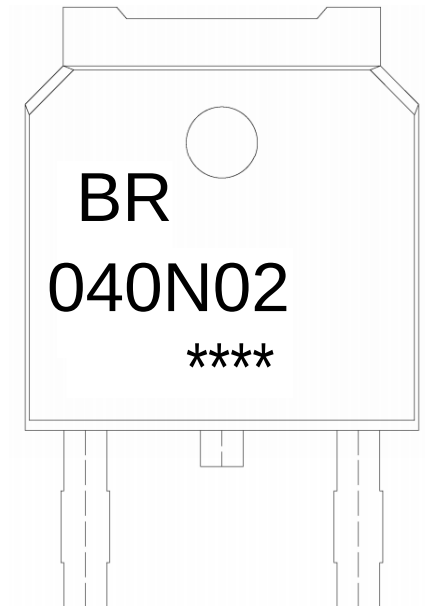




单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
F	5.95	6.35	A ₁	2.20	2.40
e	2.24	2.34	B	0.95	1.25
f	0.45	0.55	b ₁	0.70	0.90
L1	9.85	10.35	b ₂	0.45	0.55
L3	0.60	0.90	D	6.45	6
K	0.00	0.10			

TO-252



BR

040N02

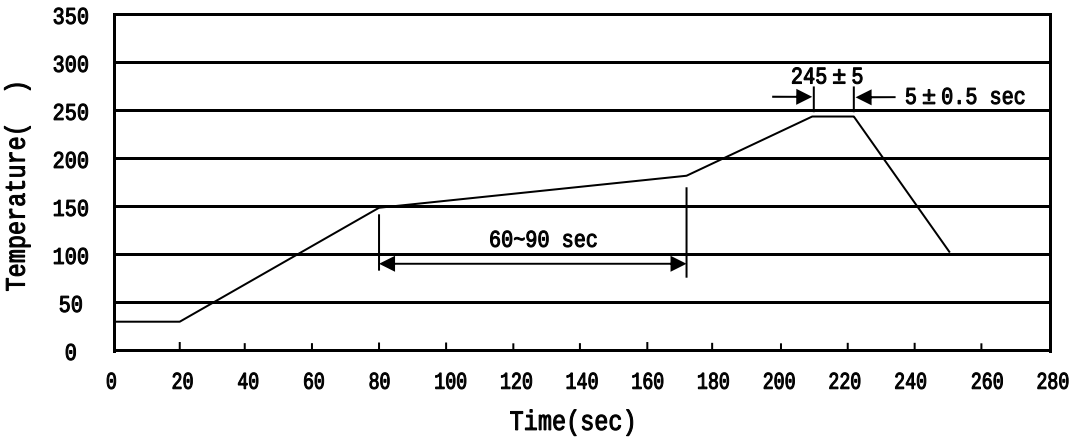
Note:

BR: Company Code

040N02: Product Type Code

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 150 180 60 90sec; 1.Preheating:150~180 , Time:60~90sec.
- 245±5 5±0.5sec; 2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 2 10 /sec. 3. Cooling Speed: 2~10 /sec.

260±5 10±1 sec. Temp.:260±5℃ Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180