

Rev.A Apr.-2024

TO-252 N MOS

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

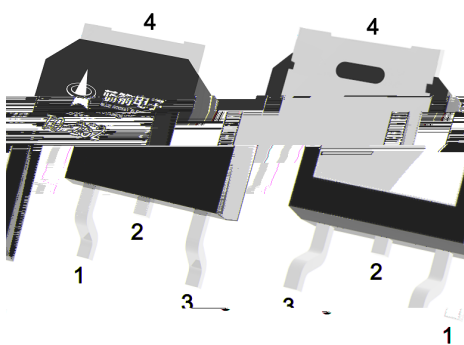
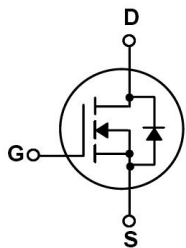
$V_{DS}=500V$ $I_D=5A$

$R_{DS(ON)}@10V \leq 1.7\Omega$ (Typ. 1.3Ω)

Fast Switching.

HF Product.

These devices are well suited for power switch circuit of adaptor and charger, intergrate fast recovery diode.



PIN1 G

PIN 2 D

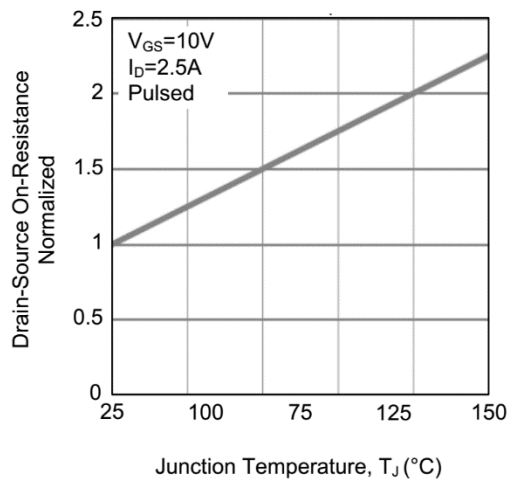
PIN 3 S

PIN 4 D

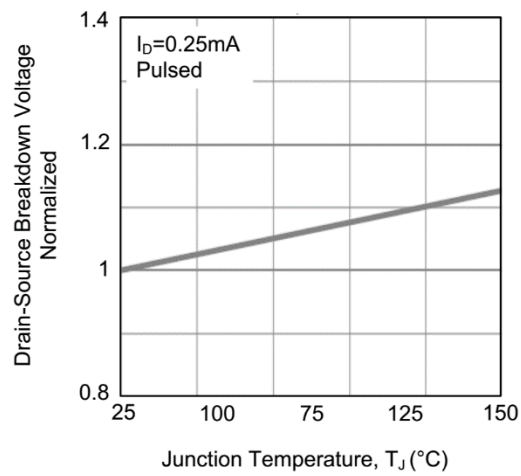
See Marking Instructions.

电性能参数

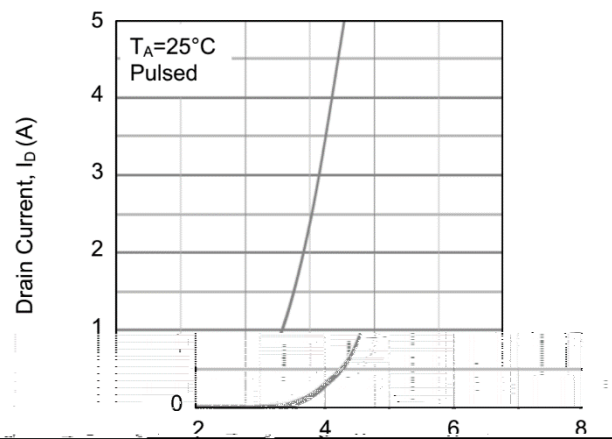
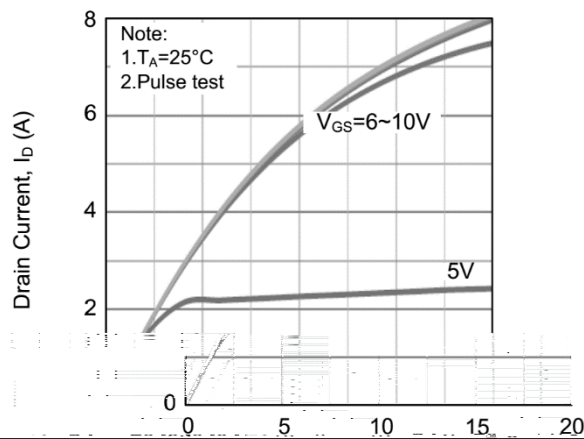
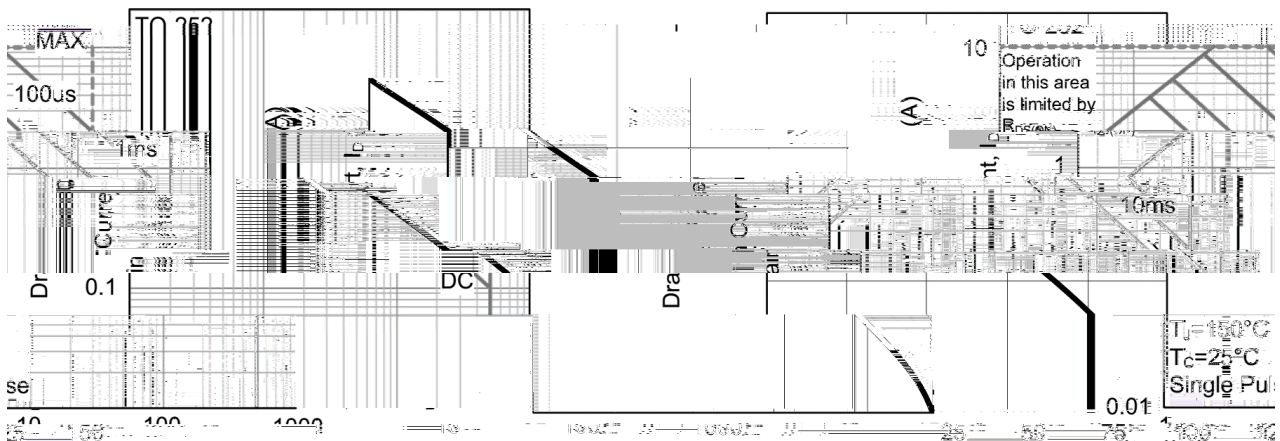
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=100V$ $I_D=5.0A$ $V_{GS}=10V$ $R_G=25\Omega$		7.5		ns
Turn-On Rise Time	t_r			18		
Turn-Off Delay Time	$t_{d(off)}$			38.6		
Turn-Off Fall Time	t_f			23.4		
Maximum Continuous Drain-Source Diode Forward Current	I_S				5	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SM}				10	A
Reverse Recovery Time	t_{rr}	$V_{GS}=0V$ $I_S=5.0A$ $dI_F/dt=100\text{ A}/\mu s$		95		ns
Reverse Recovery Charge	Q_{rr}			1.75		μC

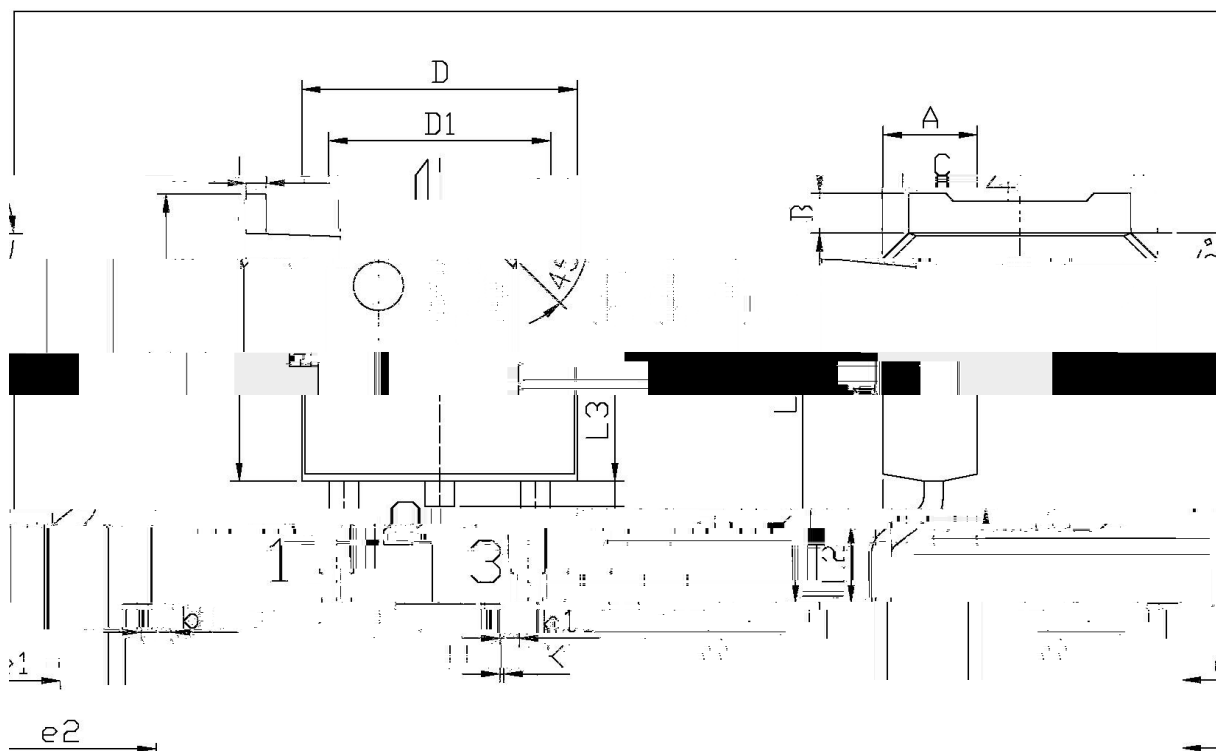


1. Drain-Source On-Resistance vs. Junction Temperature



2. Breakdown Voltage vs. Junction Temperature


 3-Drain Current vs. Drain-Source Voltage
 4-Drain Current vs. Gate-Source Voltage

 5. Safe Operating Area
 6. Drain Current vs. Junction Temperature

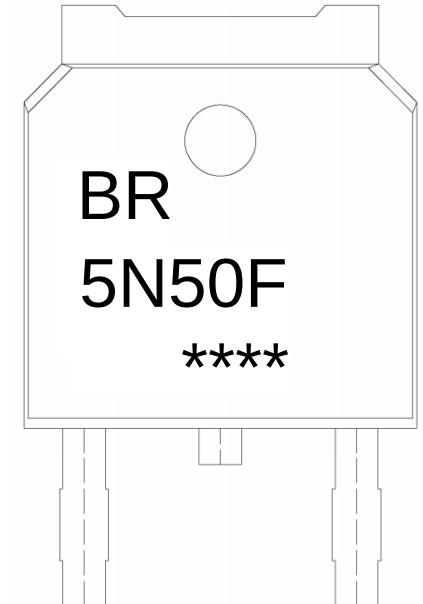


单位: mm

Symbol		Dimensions In Millimeters		Symbol		Dimensions In Millimeters	
		Min	Max			Min	Max
A	5.95	6.25	7.20	A	2.20	2.40	2.40
B	2.24	2.34	0.95	B	0.95	1.25	e1
C	1.73	1.73	0.70	C	0.70	0.90	0.90
L1	9.85	10.35	b1	b1	0.45	0.55	0.55
L2	0.55	0.55	L2	L2	0.70	2.00	2.00
D1	0.90	0.90	6.45	6.45	6.75	1.30	0.60
L3	0.60	0.60	L3	L3	0.100	0.500	0.500

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T0-2



BR

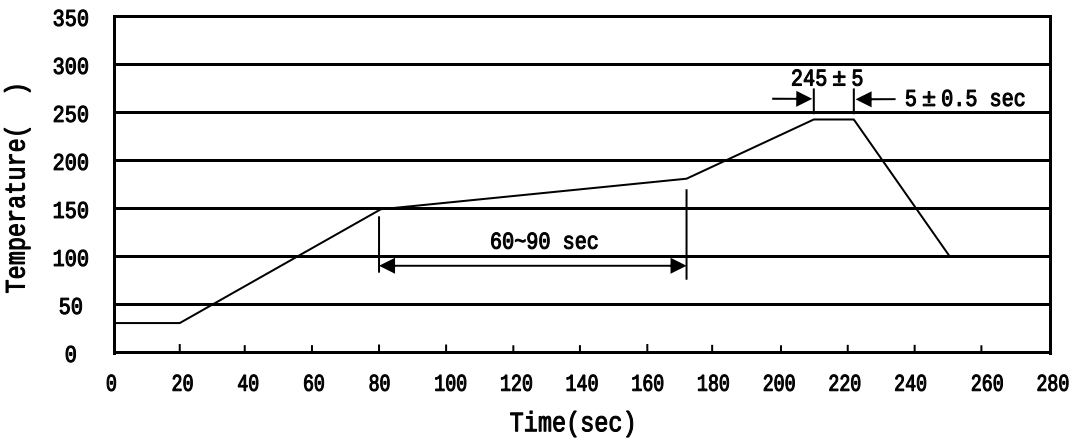
Note:

BR: Company Code

5N50F: Product Type Code

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245 5

5 0.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.
- 3

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