

MBRD1045

Rev.H Oct.-2024

/ Descriptions

TO-252

Schottky Barrier Diode in a TO-252 Plastic Package.

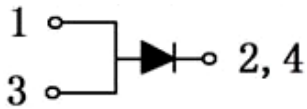
/ Features

Low power loss, high efficiency, HF Product.

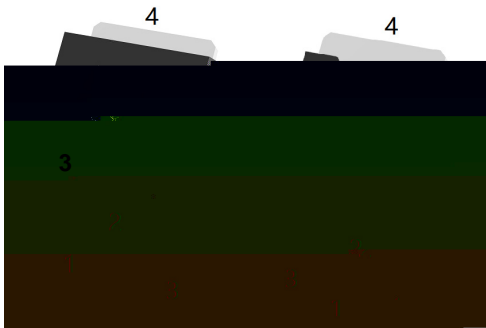
/ Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

/ Equivalent Circuit



/ Pinning



PIN1 Anode

PIN 2,4 Cathode

PIN 3 Anode

/ Marking

See Marking Instructions.

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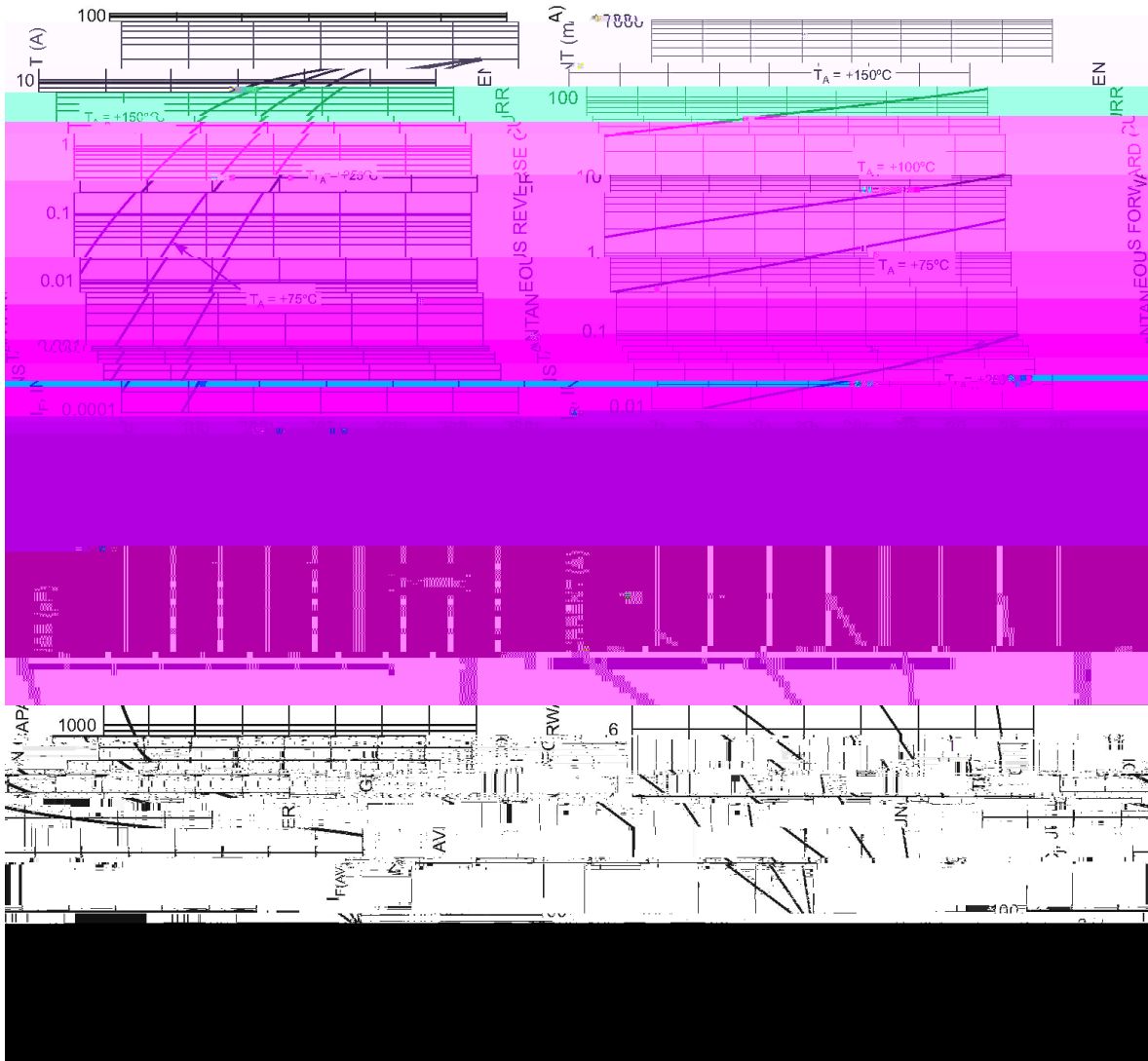
DATA SHEET

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage	V_{RRM} V_{RWM}	45	V
Reverse Voltage	V_R	45	V
Average Rectified Forward Current	$I_{F(AV)}$	10	A
Non Repetitive Peak Surge Current	I_{FSM}	100	A
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-65 150	

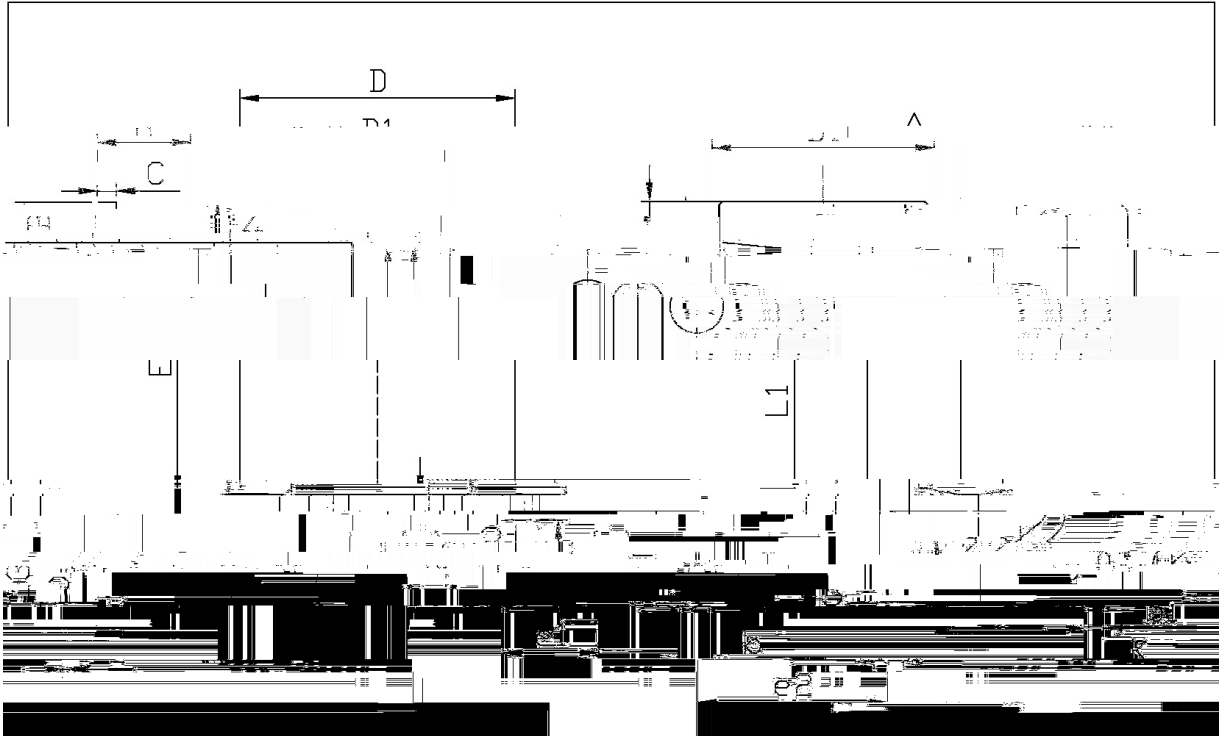
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R = 1mA$	45			V
Peak Forward Voltage	V_{FM}	$I_F = 2.0A(T_C = 25^\circ C)$		0.41	0.45	V
		$I_F = 2.0A(T_C = 125^\circ C)$		0.37	0.41	V
		$I_F = 10A(T_C = 25^\circ C)$		0.55	0.6	V
Instantaneous Reverse Current	I_{RM}	$V_R = 40V(T_C = 25^\circ C)$			0.5	mA
		$V_R = 40V(T_C = 125^\circ C)$			50	mA

V

/ Electrical Characteristic Curve



/ Package Dimensions

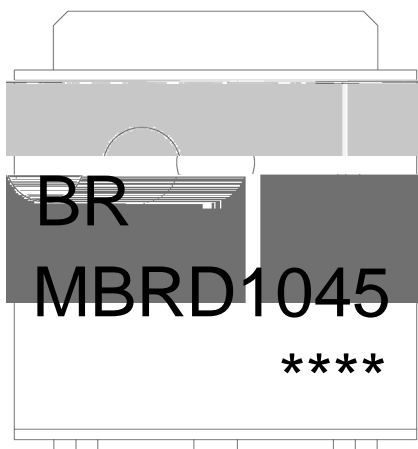


单位: mm

Symbol	Min	Max	Symbol	Min
A	2.30	2.40	F	5.95
B	0.50	0.53	G	4.75
C	0.45	0.55	H	9.95
D	5.16	5.50	I	0.00
D1	5.16	5.50	J	0.00
E	5.16	5.50	K	0.00
F	5.95	6.25	L	0.00
G	4.75	5.05	M	0.00
H	9.95	10.25	N	0.00
I	9.95	10.25	O	0.00
J	0.00	0.00	P	0.00
K	0.00	0.00	Q	0.00
L	0.00	0.00	R	0.00
M	0.00	0.00	S	0.00
N	0.00	0.00	T	0.00
O	0.00	0.00	U	0.00
P	0.00	0.00	V	0.00
Q	0.00	0.00	W	0.00
R	0.00	0.00	X	0.00
S	0.00	0.00	Y	0.00
T	0.00	0.00	Z	0.00

10-252

/ Marking Instructions



BR

MBRD1045

Note:

BR: Company Code

MBRD1045 Product Type Code

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

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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. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ 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 x16	360x360x50	380x335x366

/ 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