

# MBRD1040

Rev.H Oct.-2024

## / Descriptions

TO-252 Plastic package Schottky diode.

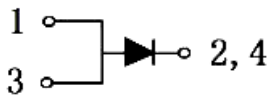
## / Features

Low forward voltage drop,low power losses,High efficiency operation, HF Product.

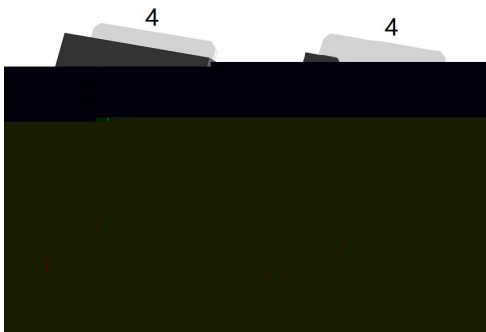
## / Applications

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.

**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	40	V
RMS Reverse Voltage	$V_{RMS}$	31.5	V
Average forward rectified Current	$I_{F(AV)}$	1 10	A
Non Repetitive Peak Surge Current	$I_{FSM}$	100	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	2	°C/W
Junction and Storage Temperature Range	$T_j T_{stg}$	-55~+150	°C

**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	$V_{(BR)R}$	$I_R = 1mA$ $T_a = 25$	40			V
Peak Forward Voltage	$V_{FM}$	$I_F = 2.0A$ $T_a = 25$		0.41	0.45	V
		$I_F = 2.0A$ $T_a = 125$		0.22	0.28	V
		$I_F = 10A$ $T_a = 25$		0.55	0.6	V
		$I_F = 10A$ $T_a = 125$		0.37	0.45	V
Instantaneous Reverse Current	$I_R$ Note 1	$V_R = 35V$ $T_a = 25$		100	300	uA
		$V_R = 35V$ $T_a = 125$		12.5	25	mA

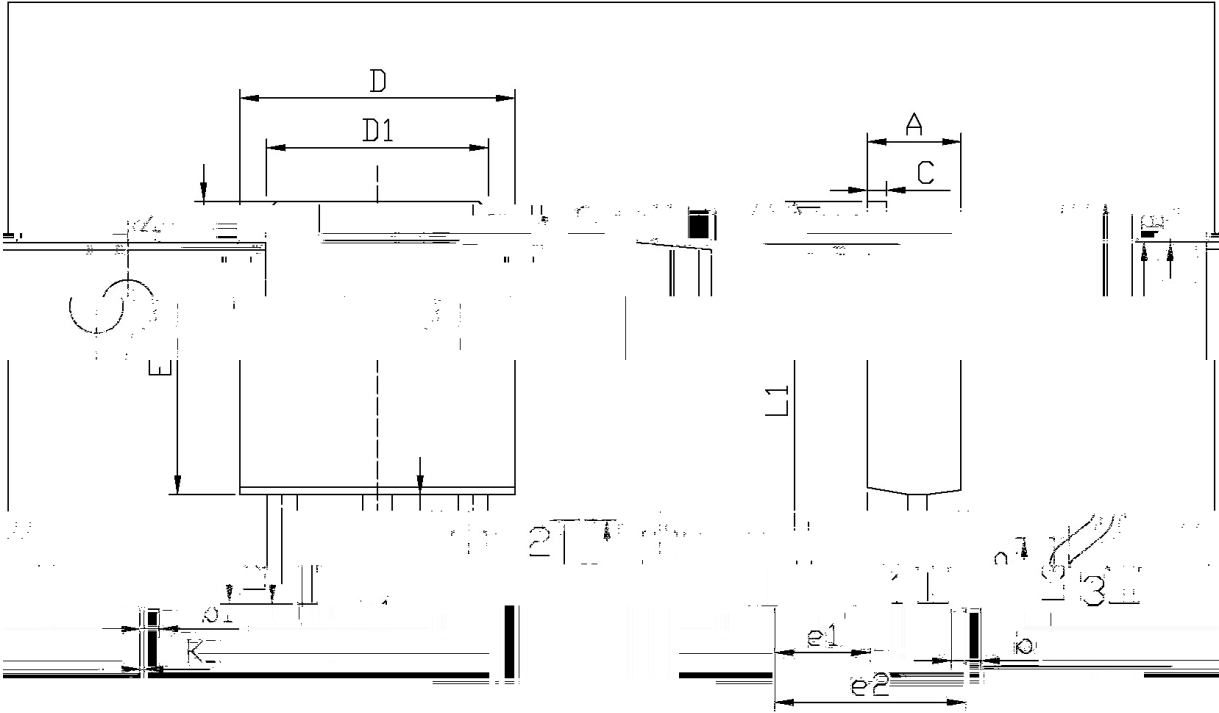
/Notes

/Short duration pulse test used to minimize self-heating effect.

/ Unless otherwise noted, values for the parameters of a single chip



**/ Package Dimensions**

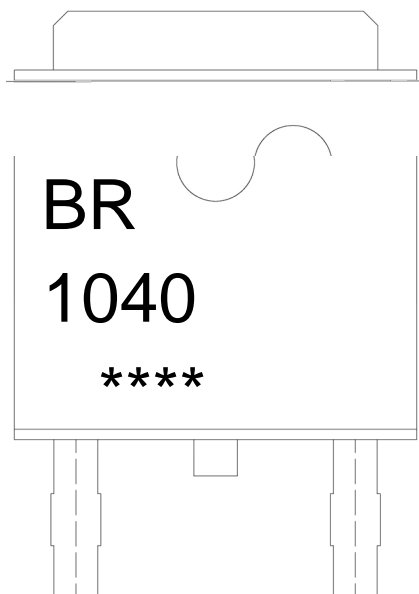


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.90	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

TO-252

/ Marking Instructions



BR

1040

Note:

BR: Company Code

1040: 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