

# MMBD4148W/MMBD4448W/BAS16W

## SURFACE MOUNT SWITCHING DIODES

<b>VOLTAGE</b>	<b>100 Volts</b>	<b>POWER</b>	<b>200mWatts</b>
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**SOT-323** Unit : inch(mm)

### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

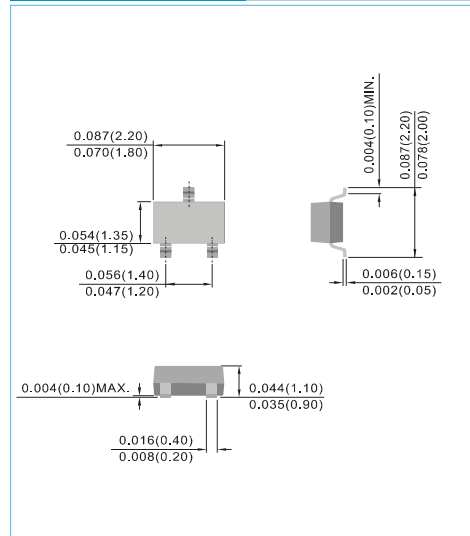
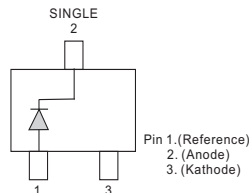
### MECHANICAL DATA

Case: SOT-323 plastic case.

Terminals: Solderable per MIL-STD-750, Method 2026

Standard packaging: 8mm tape

Approx weight: 0.00018 ounces, 0.005 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	MMBD4148W	MMBD4448W	BAS16W	UNITS
Marking Code		A2	A3	A6	
Reverse Voltage	V <sub>R</sub>	75			V
Peak Reverse Voltage	V <sub>RM</sub>	100			V
RMS Voltage	V <sub>RMS</sub>	50			V
Maximum DC Blocking Voltage	V <sub>DC</sub>	75			V
Maximum Average Forward Current at T <sub>A</sub> =25°C	I <sub>AV</sub>	150			mA
Peak Forward Surge Current, 1μs	I <sub>FSM</sub>	4			A
Power Dissipation Derate Above 25°C	P <sub>TOT</sub>	200			mW
Maximum Forward Voltage	V <sub>F</sub>	0.715@0.001A 0.855@0.01A 1@ 0.05A 1.25@0.15A	0.72 / 0.005A 1 / 0.1A	0.855 / 0.01A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	0.025@20V 2.5@75V	2.5@75V	1@75V	μA
Junction Capacitance (Note1)	C <sub>J</sub>	1.5	4	2	pF
Maximum Reverse Recovery (Note2)	T <sub>RR</sub>	4	4	6	ns
Typical Thermal Resistance	R <sub>θJA</sub>	640			°C / W
Operation and Storage Temperature Range	T <sub>J</sub>	-55 to +150			°C

### NOTE :

1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ

2.From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω

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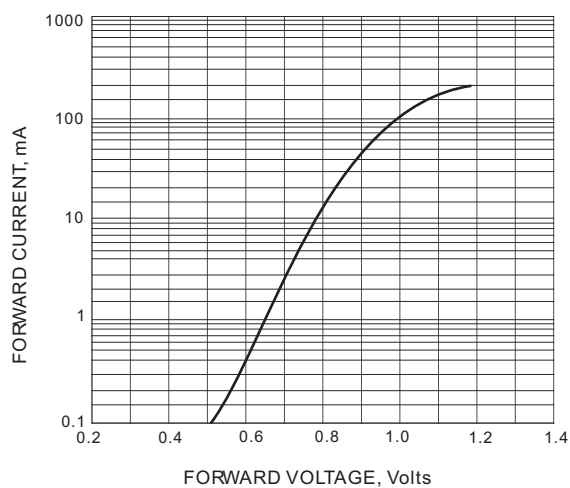


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

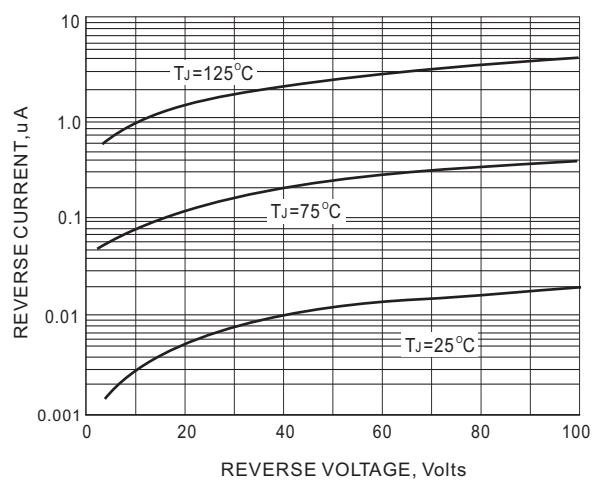


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

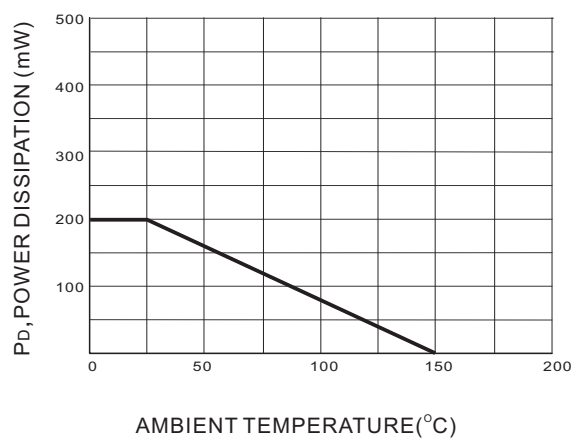
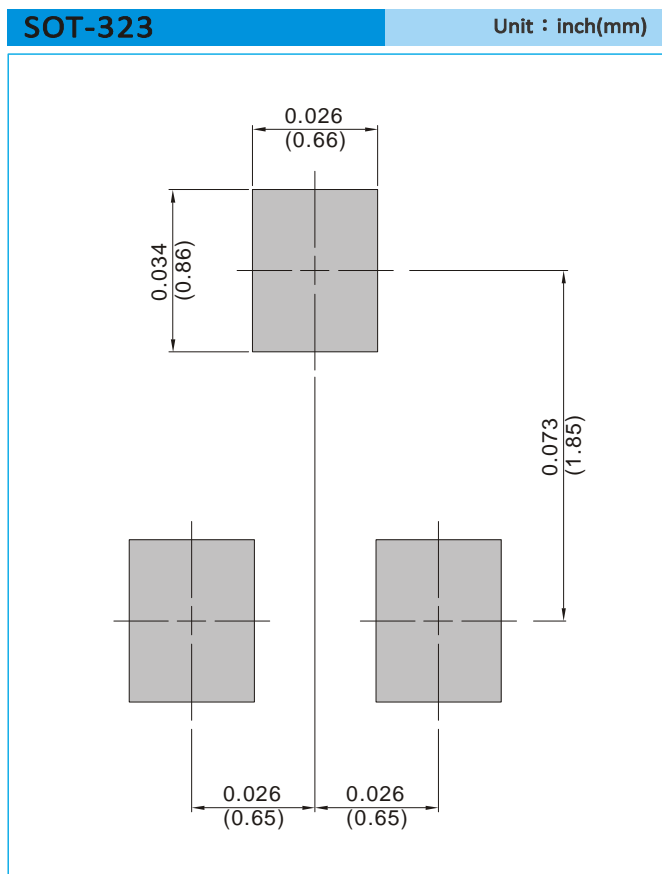


FIG. 3 POWER DERATING CURVE

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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## MMBD4148W/MMBD4448W/BAS16W

### Part No\_packing code\_Version

MMBD4148W\_R1\_00001

MMBD4148W\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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