



**THE DATASHEET OF  
MMBD4148W\_R1\_00001**



# MMBD4148W/MMBD4448W/BAS16W

## SURFACE MOUNT SWITCHING DIODES

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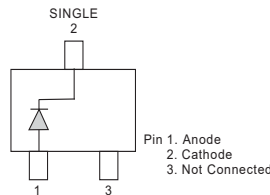
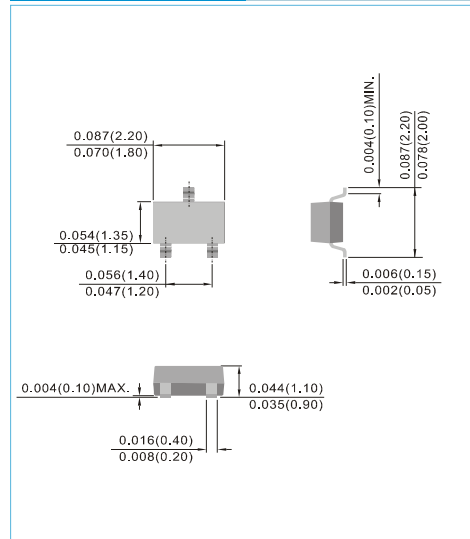
**SOT-323** Unit : inch(mm)

### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

Case : SOT-323 plastic case.  
 Terminals : Solderable per MIL-STD-750, Method 2026  
 Standard packaging : 8mm tape  
 Approx weight : 0.005 grams



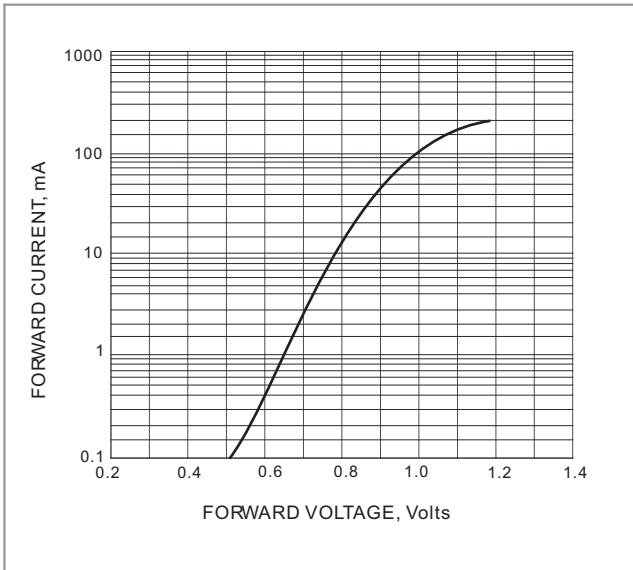
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

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

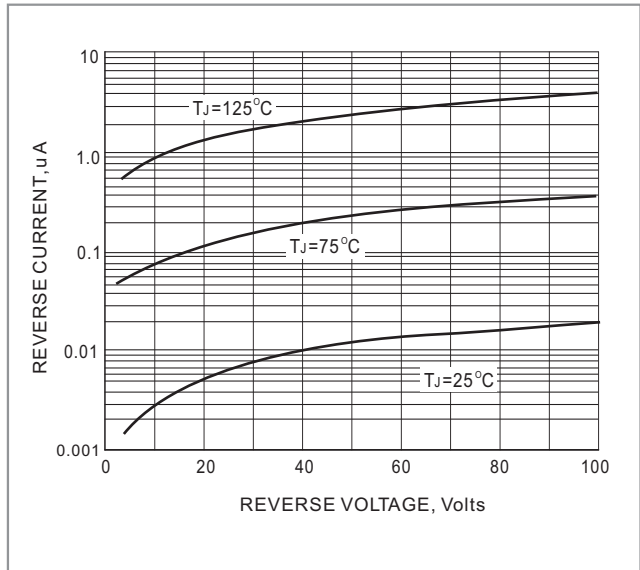
**NOTE :**

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

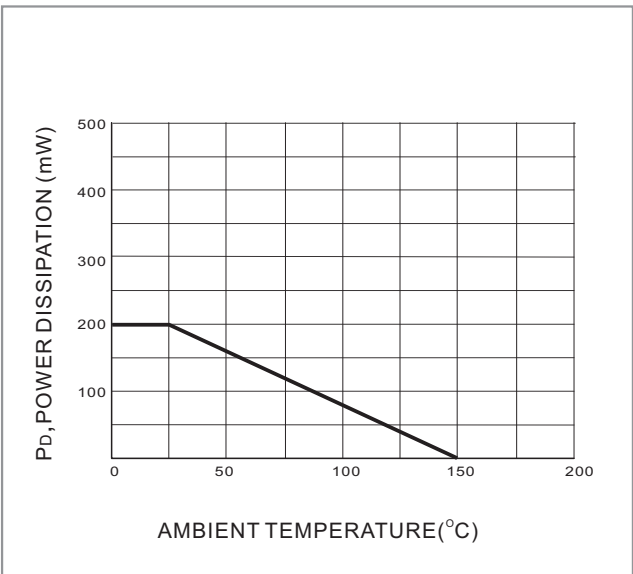
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**FIG. 1-TYPICAL FORWARD CHARACTERISTIC**



**FIG. 2-TYPICAL REVERSE CHARACTERISTICS**



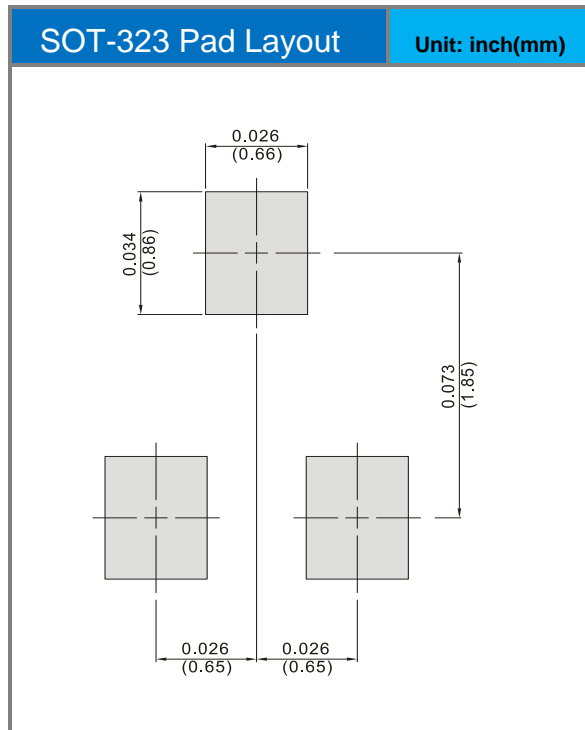
**FIG. 3 POWER DERATING CURVE**

# MMBD4148W/MMBD4448W/BAS16W

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MMBD4148W	SOT-323	3K pcs / 7" reel	A2
MMBD4148W	SOT-323	12K pcs / 13" reel	A2
MMBD4448W	SOT-323	3K pcs / 7" reel	A3
MMBD4448W	SOT-323	12K pcs / 13" reel	A3
BAS16W	SOT-323	3K pcs / 7" reel	A6
BAS16W	SOT-323	12K pcs / 13" reel	A6

## Mounting Pad Layout



## MMBD4148W/MMBD4448W/BAS16W



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