



### SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volt POWER 250mWatt

#### **FEATURES**

- · Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- Acquire quality system certificate: TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

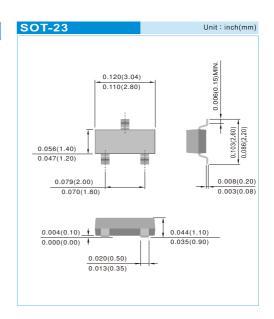
#### **MECHANICAL DATA**

Case: SOT-23 plastic case.

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

Standard packaging: 8mm tape

Approx weight: 0.0003 ounces, 0.0084 grams



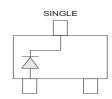
#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TJ = 25°C unless otherwise noted)

| PARAMETER  | SYMBOL | VALUE   | UNITS  |  |
|--|--------|---|--------|--|
| Marking Code   |        | A2  |        |  |
| Reverse Voltage  | VR     | 75  | V      |  |
| Peak Reverse Voltage   | Vrm    | 100   | V      |  |
| RMS Voltage  | VRMS   | 50  | V      |  |
| Maximum DC Blocking Voltage  | VDC    | 75  | V      |  |
| Maximum Average Forward Current at TA=25°C                                   | lav    | 150   | mA     |  |
| Peak Forward Surge Current, 1μs  | IFSM   | 4   | А      |  |
| Power Dissipation Derate Above 25°C  | Ртот   | 250   | mW     |  |
| Maximum Forward Voltage  | VF     | 0.715@0.001A<br>0.855@0.01A<br>1.0@ 0.05A<br>1.25@0.15A | V      |  |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C | IR     | 0.025@20V<br>2.5@75V                                    | μА     |  |
| Junction Capacitance (Notes1)  | Сл     | 1.5   | pF     |  |
| Maximum Reverse Recovery Time (Notes2)                                       | TRR    | 4.0   | ns     |  |
| Typical Thermal Resistance   | Rеја   | 357   | °C / W |  |
| Storage Temperature Range  | TJ     | -55 to +150   | °C     |  |

#### NOTE:

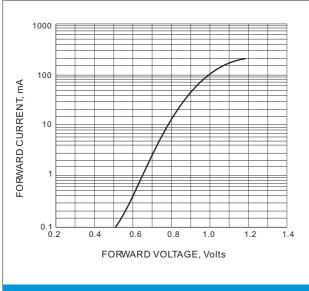
1. CJ at VR=0, f=1MHZ

2.From IF=10mA to IR=1mA, VR=6Volts, RL=100 $\Omega$ 









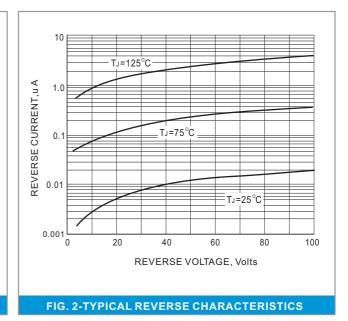
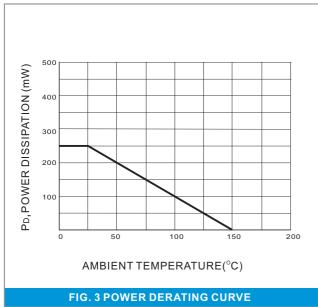


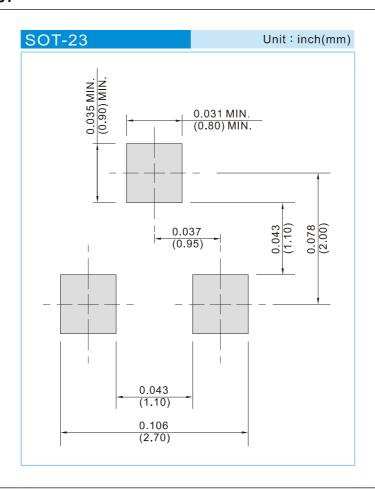
FIG. 1-TYPICAL FORWARD CHARACTERISTIC







### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

· Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel





# Part No\_packing code\_Version

MMBD4148-AU\_R1\_000A1 MMBD4148-AU\_R2\_000A1

# For example:



| Packing Code XX                      |          |                                   | Version Code XXXXX   |            |                      |                                       |
|--------------------------------------|----------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|
| Packing type                         | 1st 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)        | Α        | N/A                               | 0                    | HF         | 0                    | serial number                         |
| Tape and Reel<br>(T/R)               | R        | 7"                                | 1                    | RoHS       | 1                    | serial number                         |
| Bulk Packing<br>(B/P)                | В        | 13"                               | 2                    |            |                      |                                       |
| Tube Packing<br>(T/P)                | Т        | 26mm                              | X                    |            |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S        | 52mm                              | Y                    |            |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L        | PANASERT T/B CATHODE UP<br>(PBCU) | U                    |            |                      |                                       |
| FORMING                              | F        | PANASERT T/B CATHODE DOWN (PBCD)  | D                    |            |                      |                                       |





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