



# MMBD4448TW

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 100 Volt    **POWER** 200mWatt

### 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 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOT-363 plastic case.
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard packaging: 8mm tape
- Weight: approximately 0.0002 ounces, 0.006 grams

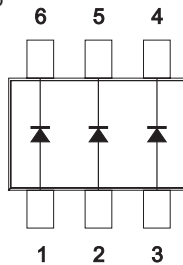
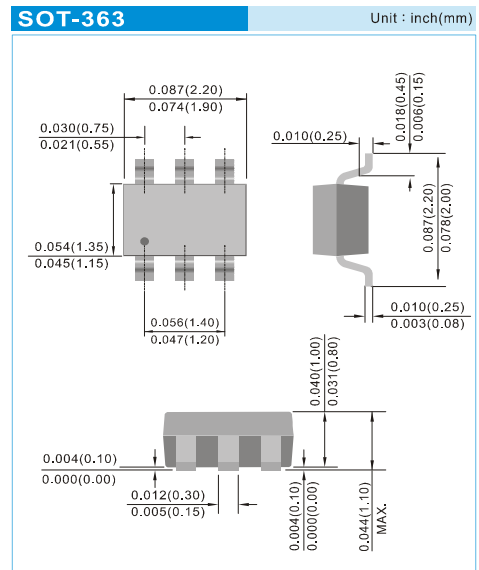


Fig.48



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

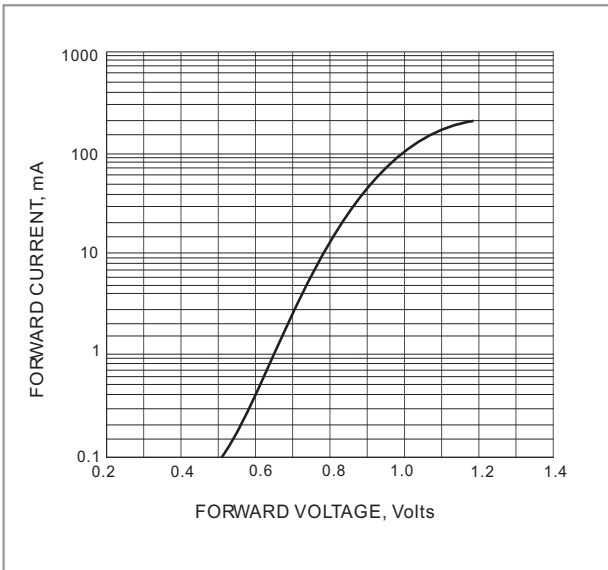
| PARAMETER   | SYMBOL           | MMBD4448TW                  | UNITS  |
|---|------------------|-----------------------------|--------|
| Reverse Voltage   | V <sub>R</sub>   | 75                          | V      |
| Peak Reverse Voltage  | V <sub>RM</sub>  | 100                         | V      |
| 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, 1.0us   | I <sub>FSM</sub> | 4                           | A      |
| Power Dissipation Derate Above 25°C   | P <sub>D</sub>   | 200                         | mW     |
| Maximum Forward Voltage   | V <sub>F</sub>   | 0.72 / 0.005A<br>1.0 / 0.1A | V      |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> = 25°C | I <sub>R</sub>   | 2.5@75V                     | μA     |
| Junction Capacitance( Note1)  | C <sub>J</sub>   | 4.0                         | pF     |
| Maximum Reverse Recovery (Note2)  | T <sub>RR</sub>  | 4.0                         | ns     |
| Typical Thermal Resistance  | RθJA             | 625                         | °C / W |
| Storage Temperature Range   | T <sub>J</sub>   | -55 to +150                 | °C     |

NOTE:

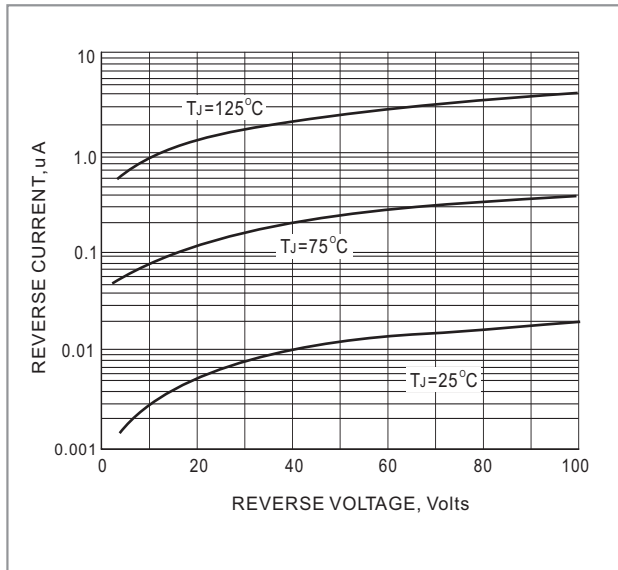
1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ
2. From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω



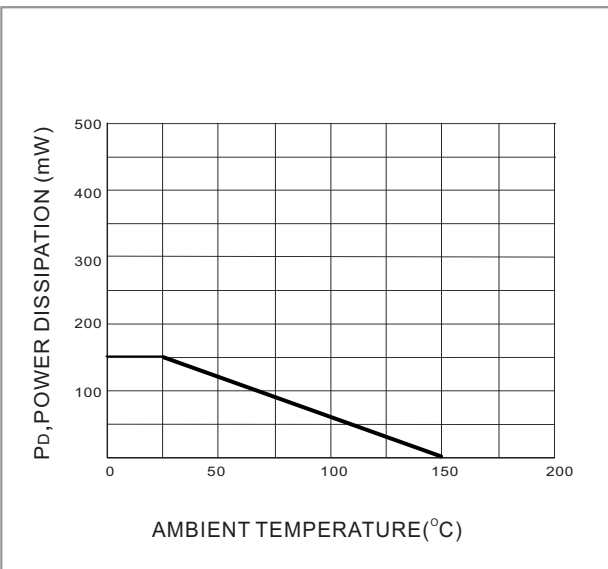
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**FIG. 1-TYPICAL FORWARD CHARACTERISTIC**



**FIG. 2-TYPICAL REVERSE CHARACTERISTICS**

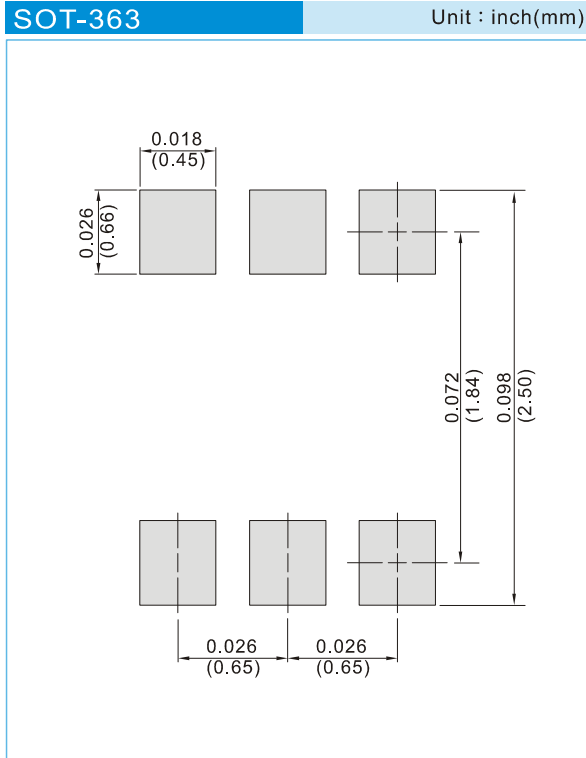


**FIG. 3 POWER DERATING CURVE**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



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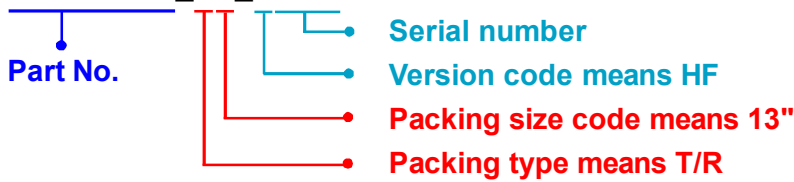
## Part No\_packing code\_Version

MMBD4448TW\_R1\_00001

MMBD4448TW\_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>             | <b>HF</b>                 | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | <b>RoHS</b>               | <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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