# WILLAS

RoHS COMPLIANT

## 150mA Surface Mount Switching Diode-100V
## SOT-23 Package

**MMBD4448**

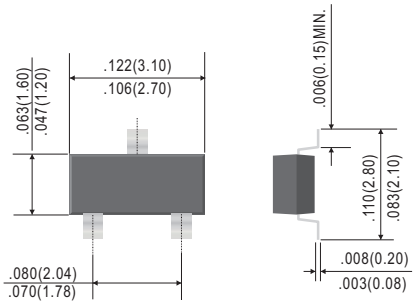
### FEATURES

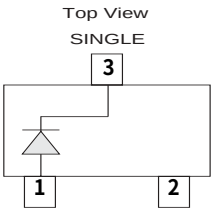
* Fast switching Speed.
* Electrically Identical to Standerd JEDEC
* High Conductance
* Surface Mount Package Ideally Suited for Automatic Insertion.
* RoHS product for packing code suffix "G"
  Halogen free product for packing code suffix "H"
* **Moisture Sensitivity Level 1**

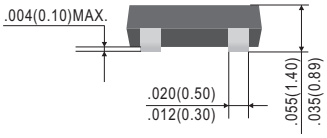
### MECHANICAL DATA

Case: SOT-23 plastic case.
Terminals : Solderable per MIL-STD-750,Method 2026
Standard packaging: 8mm tape
Weight: approximately 0.0003 ounces, 0.0084 grams

**SOT–23**




Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive of inductive load.
For capacitive load, derate current by 20%

| RATINGS | SYMBOL | MMBD4448 | UNIT |
|---|---|---|---|
| Marking Code | | A3 | |
| Reverse Voltage | $V_R$ | 75 | Volts |
| Peak Reverse Voltage | $V_{RM}$ | 100 | Volts |
| RMS Voltage | $V_{RMS}$ | 50 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 75 | Volts |
| Maximum Average Forward Current | $I_{AV}$ | 150 | mAmps |
| Peak Forward Surge Current 1.0us | $I_{FSM}$ | 4 | Amps |
| Power Dissipation Derate Above Ta=25 ℃ | $P_{TOT}$ | 250 | mW |
| Typical Thermal Resistance | $R_{\Theta JA}$ | 357 | ℃/W |
| Typical Junction Capacitance (Note 1) | $C_J$ | 4 | pF |
| Operating and Storage Temperature Range | $T_J$ ,$T_{STG}$ | -55~+150 | ℃ |

Electrical Ratings @TA=25℃

| CHARACTERISTICS | | SYMBOL | MMBD4448 | UNIT |
|---|---|---|---|---|
| Maximum Forward Voltage | @ 0.005A DC | $V_F$ | 0.72 | Volts |
| | @0.1A DC | | 1.00 | |
| Maximum Average Reverse Current | @75V DC | $I_R$ | 2.5 | uAmps |
| | @25V DC | | 25 | nAmps |
| Reverse Recovery Time (Note 2) | | Trr | 4 | nsec |

Note:
1. CJ at VR=0, f=1MHZ
2. From IF=10mA to IR=1mA, VR=6Volts, RL=100Ω

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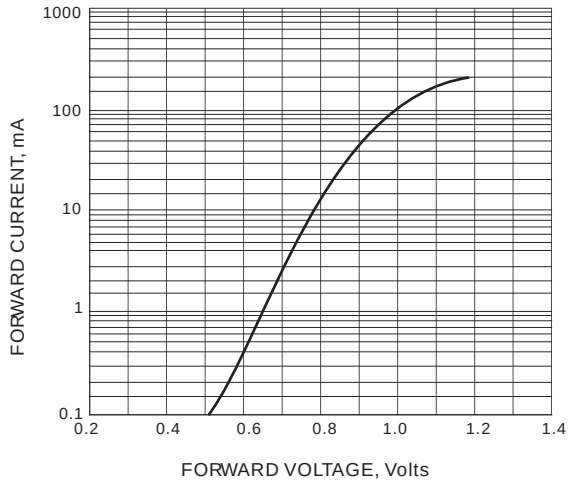


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

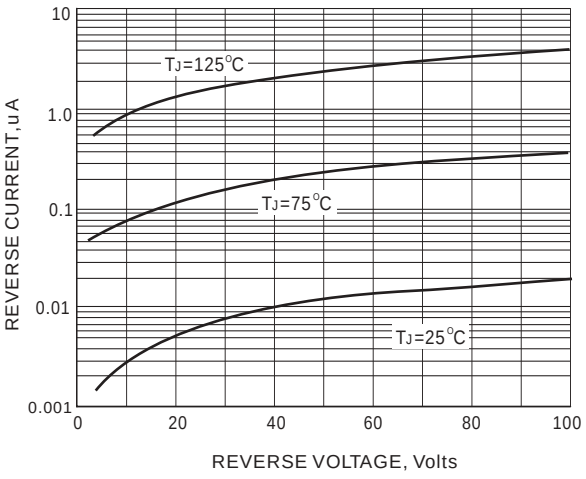


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

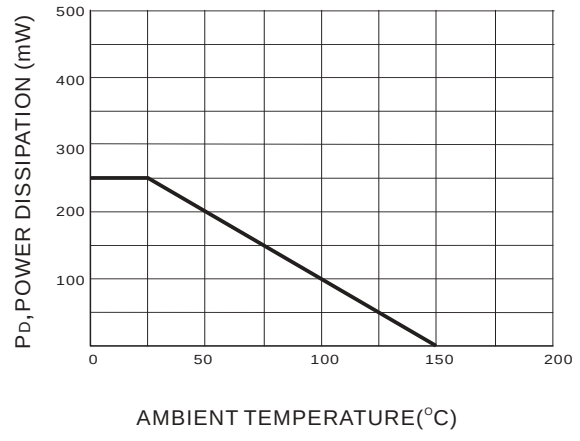


FIG. 3 POWER DERATING CURVE