

MMBD4148, MMBD4448



SURFACE MOUNT SWITCHING DIODES

VOLTAGE 75 Volts

POWER 350 mWatts

PACKAGE SOT-23

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance

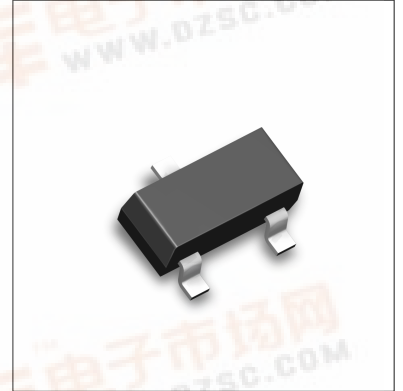
MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.008 gram

Marking: A2, A3



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

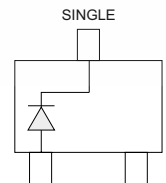
For capacitive load, derate current by 20%.

| PARAMETER | SYMBOL | MMBD4148 | MMBD4448 | UNITS |
|---|------------------|-------------|-------------|--------|
| Reverse Voltage | V _R | 75 | 75 | V |
| Peak Reverse Voltage | V _{RM} | 100 | 100 | V |
| Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz | I _O | 150 | 150 | mA |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 2.0 | 4.0 | A |
| Power Dissipation Derate Above 25°C | P _{TOT} | 350 | 350 | mW |
| Maximum Forward Voltage @ I _F =5mA @ I _F =10mA | V _F | - 1.0 | 0.72 1.0 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T _J = 25°C | I _R | 2.5 | 2.5 | µA |
| Typical Junction Capacitance(Notes1) | C _J | 4.0 | 4.0 | pF |
| Maximum Reverse Recovery (Notes2) | T _{RR} | 4.0 | 4.0 | ns |
| Maximum Thermal Resistance | R _{θJA} | 357 | | °C / W |
| Storage Temperature Range | T _J | -55 TO +125 | | °C |

NOTE:

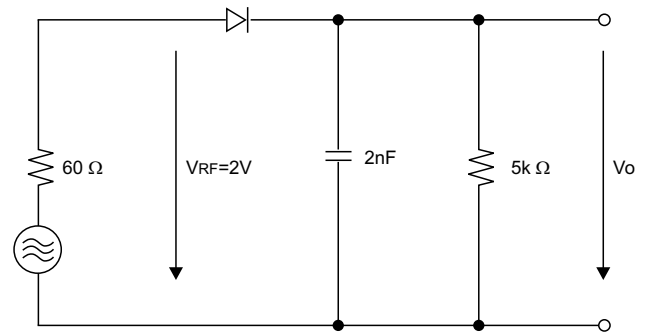
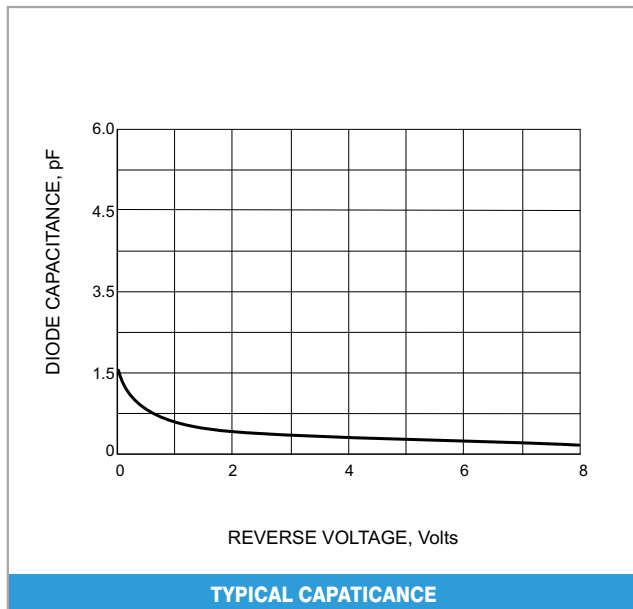
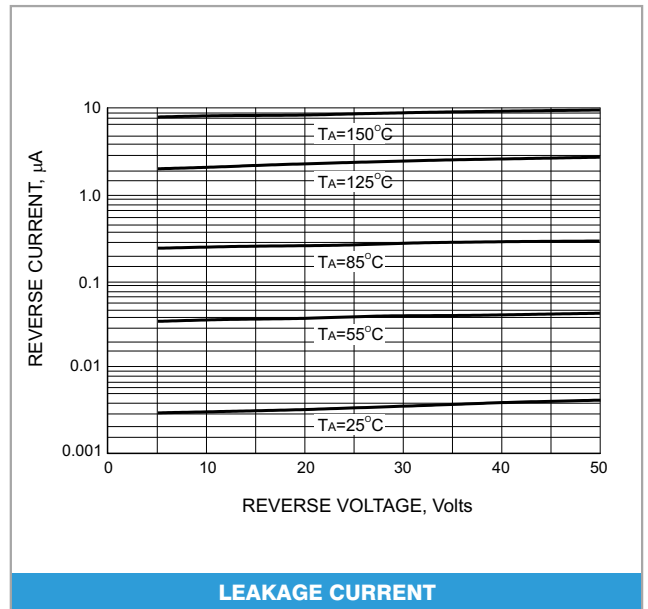
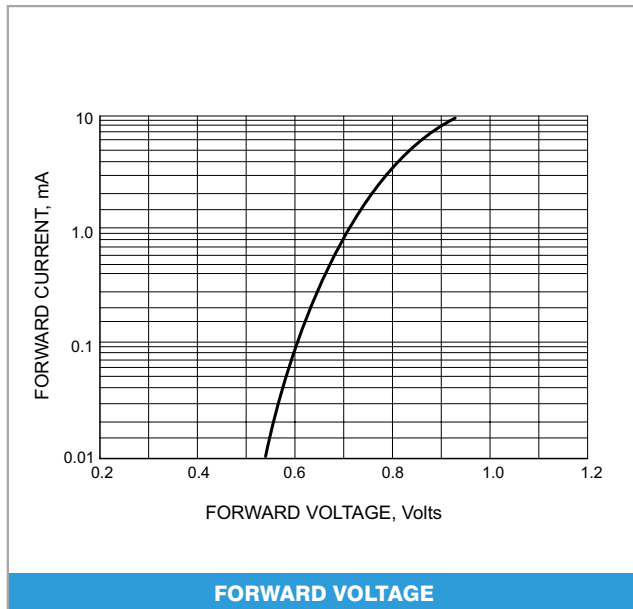
1. C_J at V_R=0, f=1MHZ

2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω



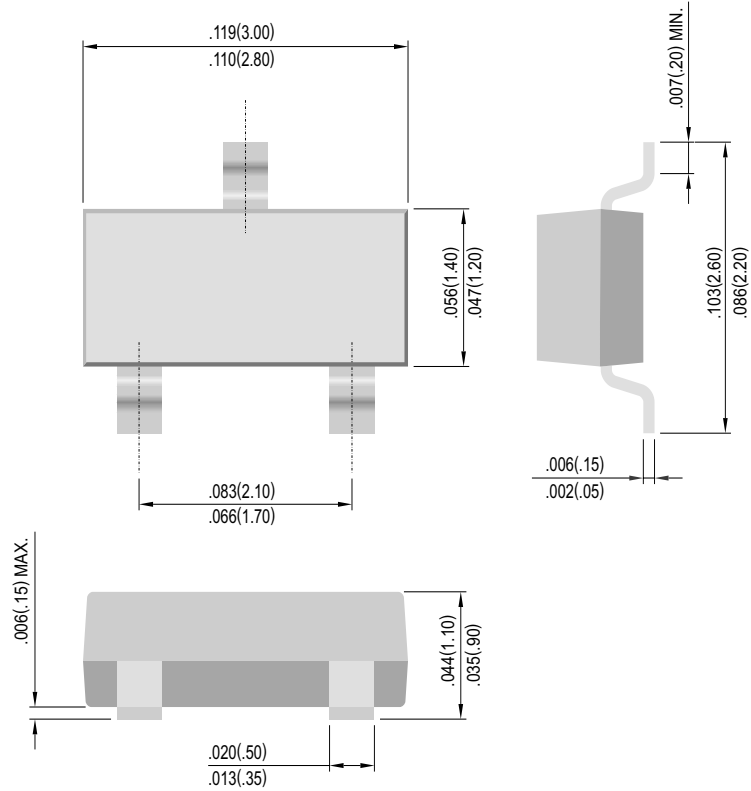
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RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

SOT-23



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