



# MMBD770WS

SURFACE MOUNT SCHOTTKY DIODE

**Voltage Range 70 Volts**  
**Power 200mWatts**

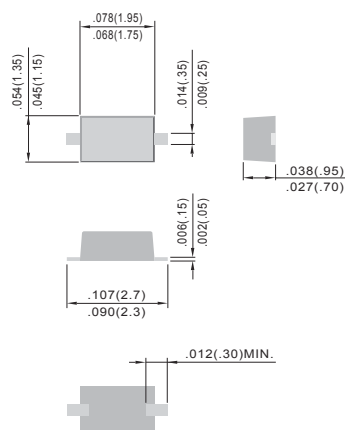
## Features

- \* Extremely low minority carrier lifetime
- \* Low capacitance ( 0.4pF @ 20V typical )
- \* Low reverse leakage ( 30nA @ 35V typical )
- \* Surface mount package ideally suited for automatic insertion
- \* Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20%% Pb  
Pb free: 99% Sn above

## Mechanical Data

Case: SOD-323, Plastic  
Terminals: Solderable per MIL-STD-202G, Method 208  
Approx. Weight: 0.0048 gram  
Marking : 770

## SOD-323



Dimensions in millimeters

## Maximum Ratings and Electrical Characteristics

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

| PARAMETER   | SYMBOL         | VALUE      | UNIT |
|---|----------------|------------|------|
| Maximum Reverse Voltage                                 | $V_R$          | 70         | V    |
| Peak Reverse Voltage                                    | $V_{RRM}$      | 70         | V    |
| Continuous Forward Current                              | $I_F$          | 0.25       | A    |
| Power Dissipation <sup>(1)</sup>                        | $P_{TOT}$      | 180        | mW   |
| Thermal Resistance , Junction to Ambient <sup>(1)</sup> | $R\theta_{JA}$ | 556        | °C/W |
| Junction Temperature                                    | $T_J$          | -50 to 125 | °C   |
| Storage Temperature                                     | $T_{STG}$      | -50 to 150 | °C   |

## Electrical Characteristics ( $T_J=25^\circ\text{C}$ , unless otherwise noted)

| PARAMETER                 | SYMBOL     | TEST CONDITION                        | MIN. | TYP. | MAX.       | UNIT          |
|---------------------------|------------|---------------------------------------|------|------|------------|---------------|
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R=10\mu\text{A}$                   | 70   | -    | -          | V             |
| Reverse Current           | $I_R$      | $V_F=35\text{V}$                      | -    | -    | 0.2        | $\mu\text{A}$ |
| Forward Voltage           | $V_F$      | $I_F=1\text{mA}$<br>$I_F=10\text{mA}$ | -    | -    | 0.5<br>1.0 | V             |
| Total Capacitance         | $C_T$      | $V_R=20\text{V}$ , $f=1\text{MHz}$    | -    | -    | 1.0        | pF            |

### NOTES:

1.FR-5 Board=1.0 x 0.75 x 0.062 in.



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## Characteristic Curves

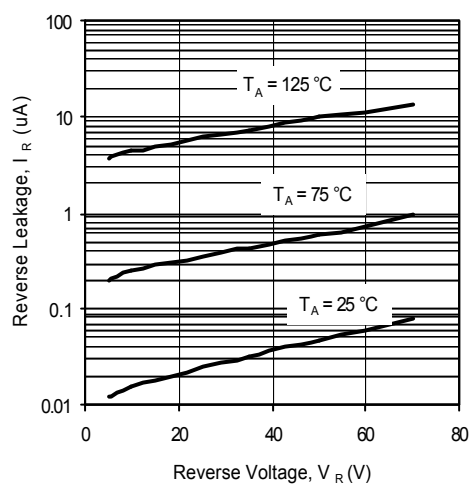


Fig.1 Typical Reverse Leakage

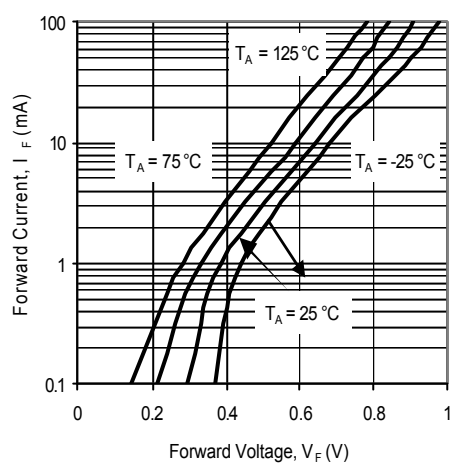


Fig.2 Typical Forward Voltage

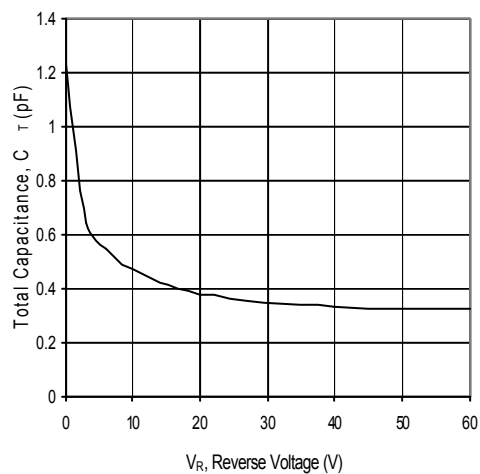


Fig.3 Typical Total Capacitance



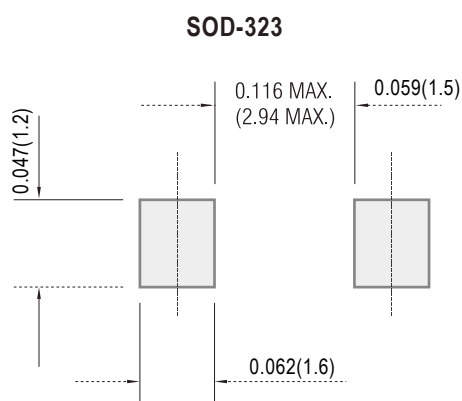
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### Mounting Pad Layout



Dimensions in millimeters

### Order Information

Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

### Legal Statement

#### Important Notice

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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