

# MMBD717WS

## SURFACE MOUNT SCHOTTKY DIODES

**VOLTAGE** 20 Volt **CURRENT** 200 mA

**SOD-323**

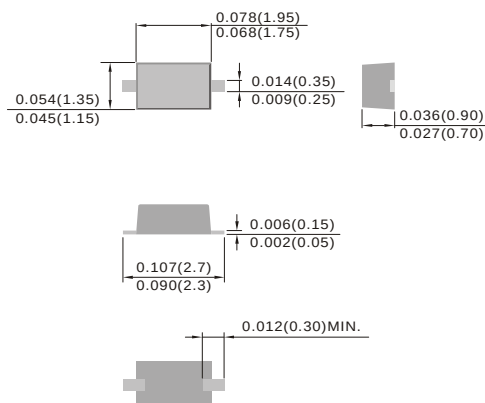
Unit : inch(mm)

### FEATURES

- Very Low  $V_F$ : 0.32V (Typ) at  $I_F = 1\text{mA}$
- Low Capacitance: 2.5 pF (Max) at  $V_R=0\text{V}$
- Extremely Fast Switching Speed
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams



## 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       | Units |
|----------------------------------------------|-----------------|-------------|-------|
| Marking Code                                 | -               | P70         | -     |
| Maximum Reverse Voltage                      | $V_R$           | 20          | V     |
| Peak Reverse Voltage                         | $V_{RRM}$       | 20          | V     |
| Maximum Forward Current                      | $I_F$           | 0.2         | A     |
| Power Dissipation (1)                        | $P_{TOT}$       | 200         | mW    |
| Thermal Resistance , Junction to Ambient (1) | $R_{\theta JA}$ | 625         | °C/W  |
| Junction Temperature Range                   | $T_J$           | -55 to +150 | °C    |
| Storage Temperature Range                    | $T_{STG}$       | -55 to +150 | °C    |

Note:

1. FR-4 Board = 70 x 60 x 1mm.

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## ELECTRICAL CHARACTERISTICS (each diode) ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

| Parameter                 | Symbol     | Test Condition                 | Min. | Typ. | Max. | Units         |
|---------------------------|------------|--------------------------------|------|------|------|---------------|
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R=10\mu\text{A}$            | 20   | -    | -    | V             |
| Reverse Leakage Current   | $I_R$      | $V_R=10\text{V}$               | -    | -    | 1    | $\mu\text{A}$ |
| Forward Voltage           | $V_F$      | $I_F=1\text{mA}$               | -    | -    | 0.37 | V             |
| Total Capacitance         | $C_J$      | $V_R=1\text{V}, f=1\text{MHz}$ | -    | -    | 2.5  | pF            |

## ELECTRICAL CHARACTERISTICS CURVE

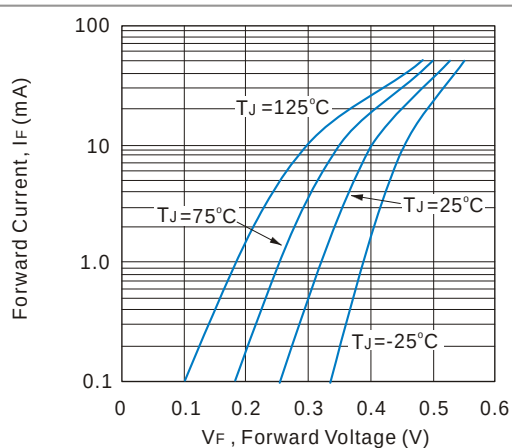


Fig. 1. Typical Forward Voltage

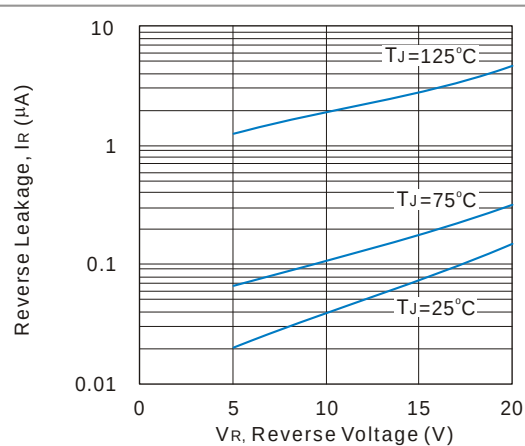


Fig. 2. Typical Reverse Leakage

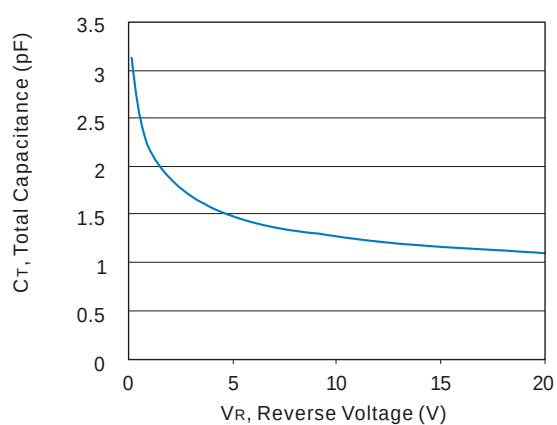
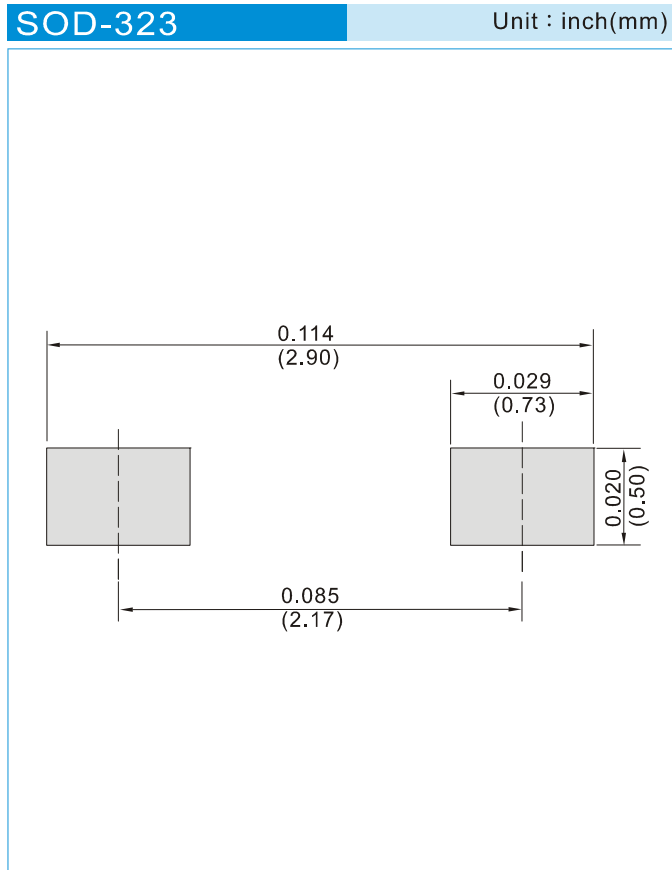


Fig. 3. Typical Total Capacitance

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel

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## Part No\_packing code\_Version

MMBD717WS\_R1\_00001

MMBD717WS\_R2\_00001

For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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



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