



### SURFACE MOUNT HIGH FREQUENCY SCHOTTKY DIODE

VOLTAGE 7.0 Volts POWER 200 mW SOT-323

#### **FEATURES**

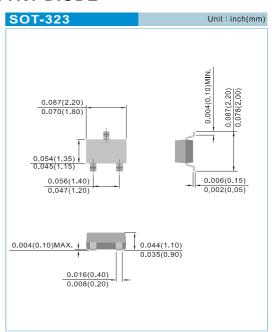
- · Low Capacitance, Minimizing Insertion Losses in VHF Applications
- Low V<sub>F</sub>: 0.5V (Typ) at I<sub>F</sub>=10mA
- · Extremely Fast Switching Speed
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

Case: SOT-323, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx weight: 0.0002 ounces, 0.005 grams



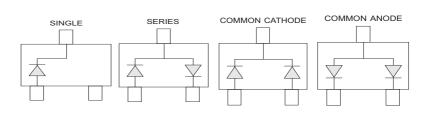
### MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

| PARAMETER                  | SYMBOL | MMBD101W   | MMBD352W | MMBD354W          | MMBD355W        | UNITS |
|----------------------------|--------|------------|----------|-------------------|-----------------|-------|
| Marking Code               |        | 101        | 352      | 354               | 355             |       |
| Reverse Voltage            | Vr     | 7          |          |                   |                 |       |
| Forward Power Dissipation  | PF     | 200        |          |                   |                 | mW    |
| Junction Temperature Range | TJ     | -55 to 125 |          |                   |                 |       |
| Storage Temperature Range  | Тѕтс   | -55 to 150 |          |                   |                 | °C    |
| Circuit Figure             |        | SINGLE     | SERIES   | COMMON<br>CATHODE | COMMON<br>ANODE |       |

#### THERMAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

| PARAMETER                                   | SYMBOL | VALUE | UNITS |  |
|---|--------|-------|-------|--|
| Thermal Resistance, Junction to Ambient (1) | Rөja   | 500   | °C/W  |  |

Note 1. FR-5 Board =  $1.0 \times 0.75 \times 0.062$  in



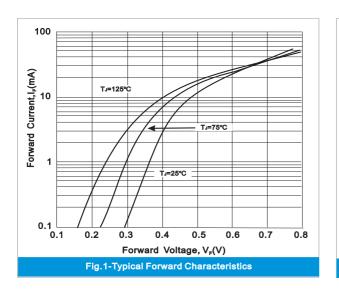


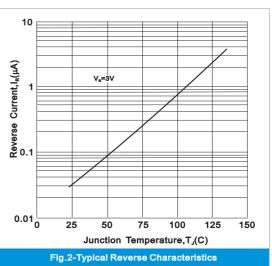


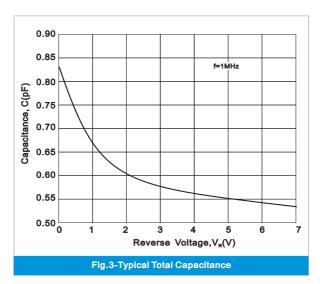
### ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| PARAMETER                 | SYMBOL         | TEST CONDITION                | MIN. | TYP. | MAX. | UNITS |
|---------------------------|----------------|-------------------------------|------|------|------|-------|
| Reverse Breakdown Voltage | $V_{(BR)}$     | Ι <sub>R</sub> =10μΑ          | 7.0  | 10   | -    | V     |
| Reverse Leakage Current   | I <sub>R</sub> | V <sub>R</sub> =3.0V          | -    | -    | 0.25 | μА    |
| Forward Voltage           | V <sub>F</sub> | I <sub>F</sub> =10 mA         | -    | 0.5  | 0.6  | V     |
| Total Capacitance         | Ст             | f=1.0MHz ; V <sub>R</sub> =0V | -    | 0.88 | 1.0  | pF    |

#### **ELECTRICAL CHARACTERISTICS CURVE**



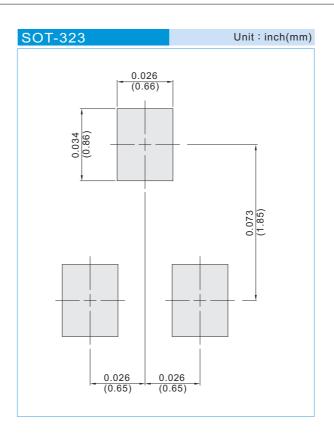








### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel





Part No\_packing code\_Version

MMBD101W\_R1\_00001 MMBD101W\_R2\_00001

# For example:



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





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