



RB501V-40

SURFACE MOUNT SCHOTTKY DIODES

VOLTAGE 45 Volt **CURRENT** 100 mA

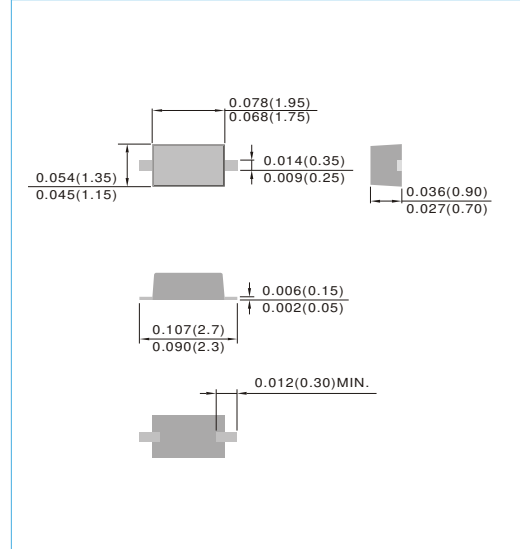
SOD-323 Unit : inch(mm)

FEATURES

- Extremely Fast Switching Speed
- Very Low V_F : 0.32V (Typ) at $I_F = 10\text{mA}$
- Surface mount package ideally suited for automatic insertion
- 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
- Polarity : Color band denotes cathode end
- Appox Weight : 0.0001 ounces, 0.0041 grams
- Marking : 501



ABSOLUTE RATINGS

| Parameter | Symbol | Value | Units |
|--|-------------|--------------|-------|
| Maximum Peak Reverse Voltage | V_{RRM} | 45 | V |
| Reverse DC Voltage | V_R | 30 | V |
| Maximum Forward Current | $I_{F(AV)}$ | 0.1 | A |
| Maximum Forward Peak Current (60Hz-1cycle) | I_{FSM} | 1 | A |
| Power Dissipation ⁽¹⁾ | P_{TOT} | 0.2 | W |
| Peak Forward Surge Current at t=8.3ms | I_{FSM} | 500 | mA |
| Junction Temperature | T_J | -55 to + 125 | °C |
| Storage Temperature | T_{STG} | -55 to + 125 | °C |

THERMAL CHARACTERISTICS

| Parameter | Symbol | Value | Units |
|--|-----------------|-------|-------|
| Thermal Resistance, Junction to Ambient ⁽¹⁾ | $R_{\theta JA}$ | 300 | °C/W |

1. FR-4 Board = 70 x 60 x 1mm. Minmum Pad Layout

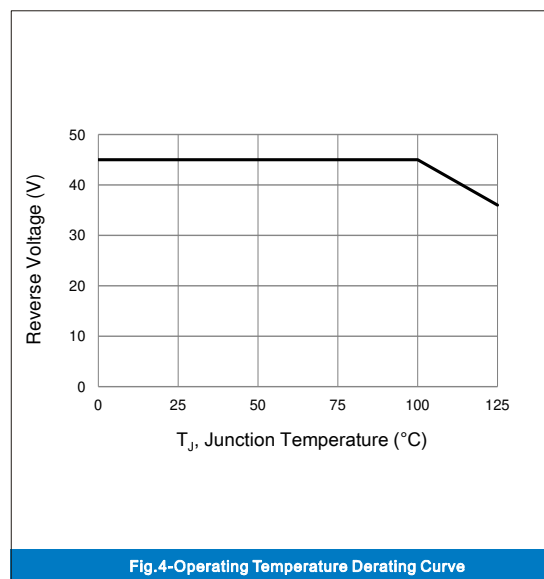
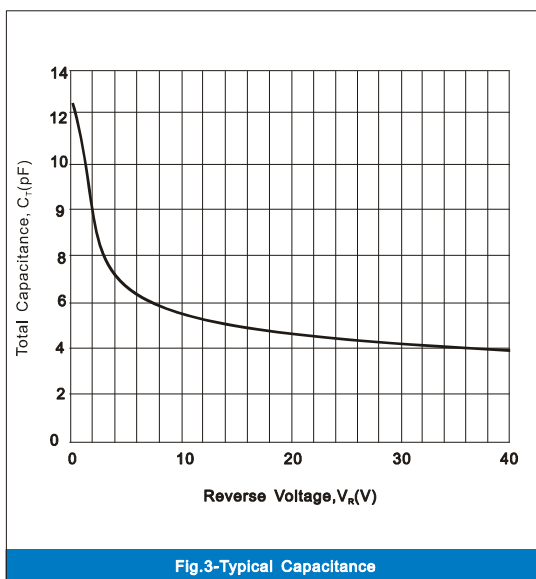
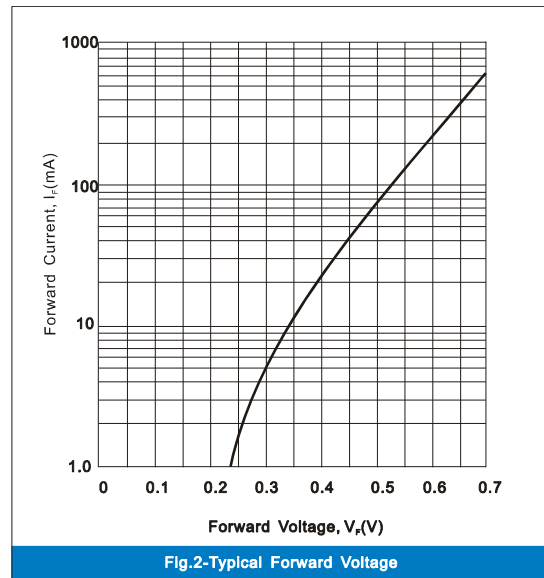
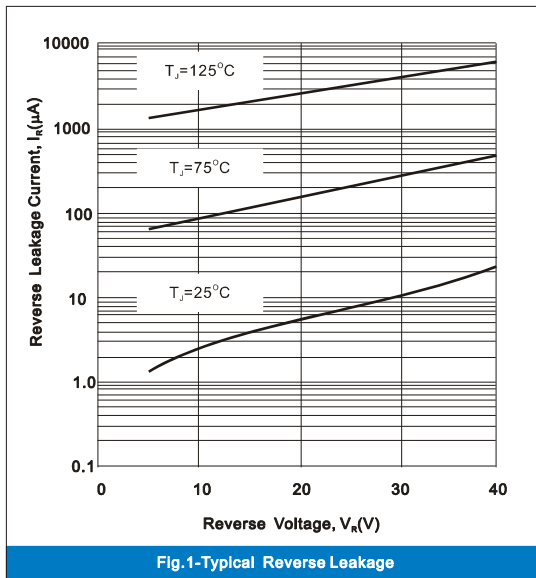


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ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Test Condition | MIN. | TYP. | MAX. | Units |
|-------------------------|--------|---|------|------|--------------|-------|
| Reverse Leakage Current | I_R | $V_R=10\text{V}$ | - | - | 10 | A |
| Forward Voltage | V_F | $I_{F1}=10\text{mA}$ $I_{F2}=100\text{mA}$ | - | - | 0.34 0.55 | V |
| Total Capacitance | C_T | $V_R=10\text{V}, F=1\text{MHz}$ | - | 6 | - | pF |

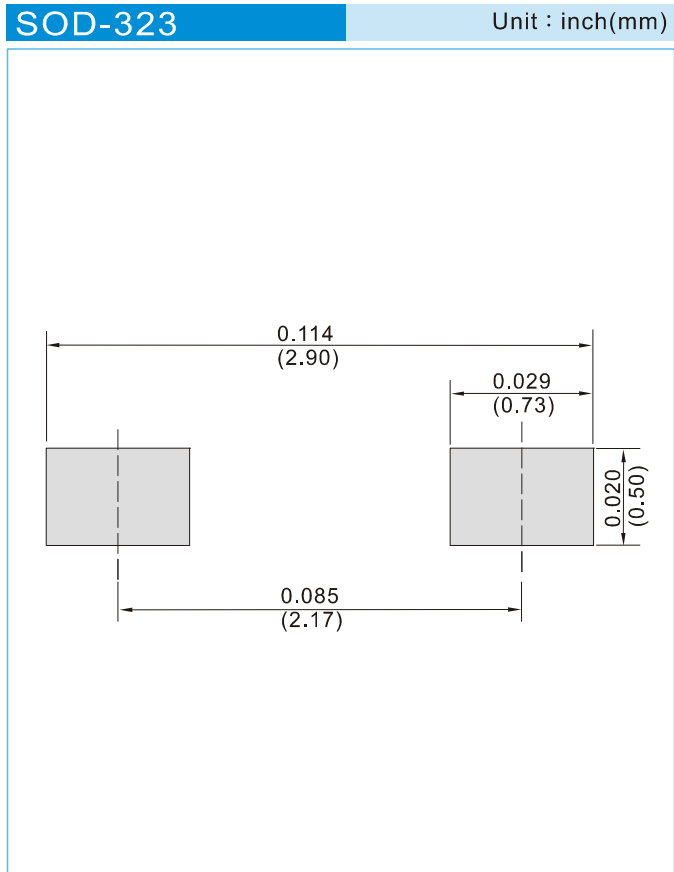
ELECTRICAL CHARACTERISTICS CURVE





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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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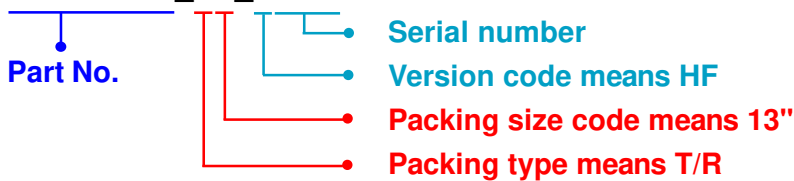
Part No_packing code_Version

RB501V-40_R1_00001

RB501V-40_R2_00001

For example :

RB500V-40 **R2** **00001**



| Packing Code XX | | | | Version Code XXXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|----------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th 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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