

RMD1S THRU RMD7S

MINIATURE GLASS PASSIVATED FAST RECOVERY SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 0.5 AMPERE

FEATURES

- Surge overload rating: 25 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Fast recovery, low switching loss
- Reliable low cost construction utilizing molded

MECHANICAL DATA

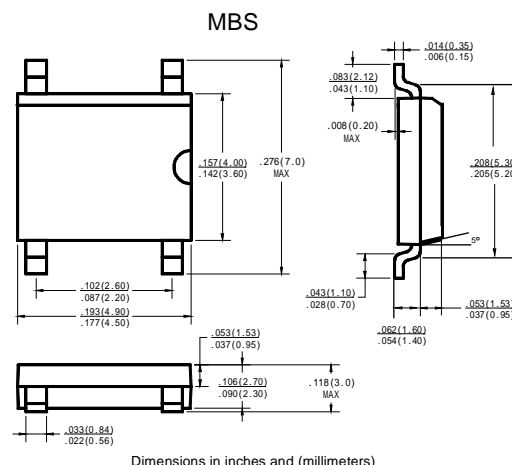
Case: Molded plastic, MD-S

Epoxy: UL 94V-0 rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.008ounce, 0.22gram



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%.

| | Symbols | RMD1S | RMD2S | RMD3S | RMD4S | RMD5S | RMD6S | RMD7S | Units |
|--|-----------------|-------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current (see Fig. 1) on glass-epoxy P.C.B (Note 2) on aluminum substrate (Note 3) | $I_{(AV)}$ | 0.5 0.8 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 25 | | | | | | | Amp |
| Maximum Forward Voltage at 0.4A DC and 25°C | V_F | 1.3 | | | | | | | Volts |
| Maximum Reverse Current at $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=125^\circ C$ | I_R | 5.0 500 | | | | | | | uAmp |
| Typical Junction Capacitance (Note 1) | C_J | 13 | | | | | | | pF |
| Maximum Reverse Recovery Time (Note 4) | T_{RR} | 150 | | | | | 250 | 500 | nS |
| Typical Thermal Resistance (Note 3) | $R_{\theta JA}$ | 70 | | | | | | | °C/W |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ | 20 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | | | | | | | °C |

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

3- On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

4- Reverse Recovery Test Conditions: $I_F=.5A$, $I_R=1A$, $I_{RR}=.25A$.

RMD1S THRU RMD7S

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – Maximum Forward Current Derating Curve

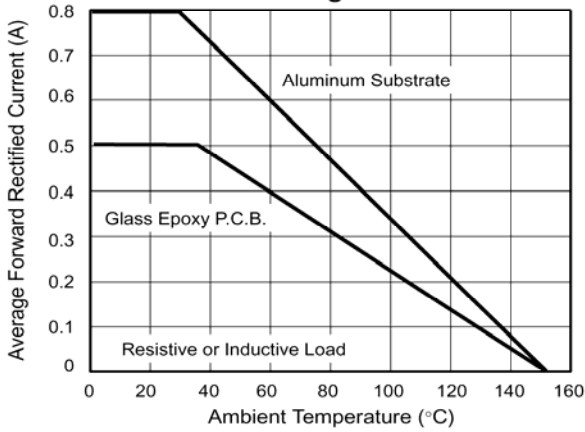


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

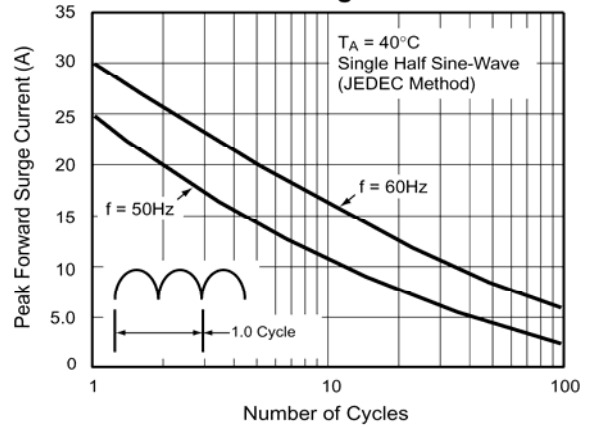


Fig. 3 – Typical Instantaneous Forward Characteristics

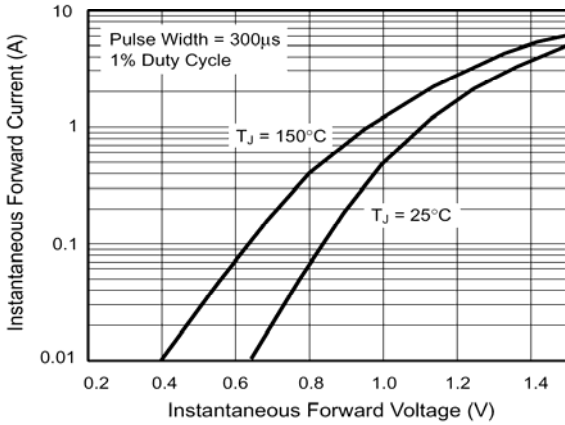


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

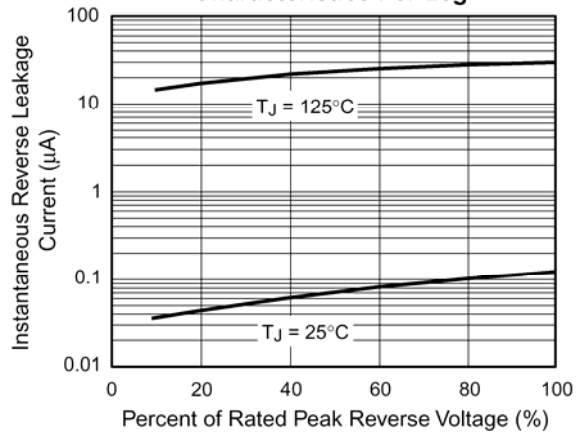


Fig. 5 - Typical Junction Capacitance Per Leg

