

**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.5 Ampere

FEATURES

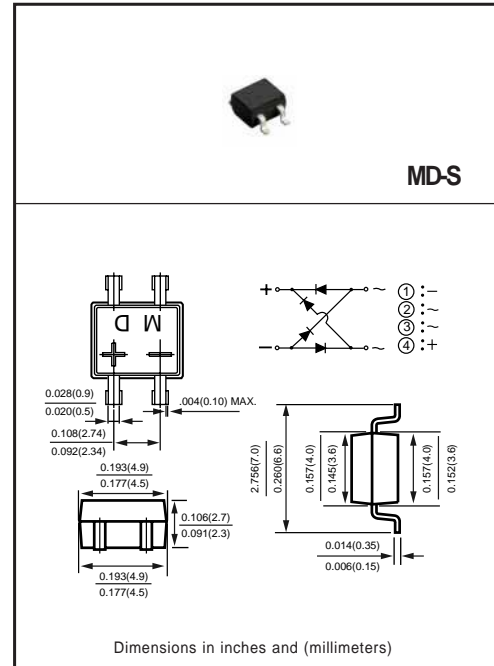
- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * UL listed under the recognized component directory, file #E94233.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| RATINGS | SYMBOL | MD1S | MD2S | MD3S | MD4S | MD5S | MD6S | MD7S | UNITS |
|---|-----------------|--------------|------|------|------|------|------|------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input 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 Output Current at $T_A = 40^\circ\text{C}$ | I_O | 0.5 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 30 | | | | | | | Amps |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 85 | | | | | | | $^\circ\text{C}/\text{W}$ |
| | $R_{\theta JL}$ | 20 | | | | | | | |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to + 150 | | | | | | | $^\circ\text{C}$ |

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

| CHARACTERISTICS | SYMBOL | MD1S | MD2S | MD3S | MD4S | MD5S | MD6S | MD7S | UNITS |
|--|-----------------------------|------|------|------|------|------|------|------|------------------|
| Maximum Forward Voltage Drop per Bridge Element at 0.5A DC | V_F | 1.05 | | | | | | | Volts |
| Maximum Reverse Current at Rated DC Blocking Voltage per element | @ $T_A = 25^\circ\text{C}$ | 5.0 | | | | | | | μAmps |
| | @ $T_A = 125^\circ\text{C}$ | 0.5 | | | | | | | mAmps |

Note: 1. "Fully ROHS compliant", "100% Sn plating(Pb-free).
2. Thermal Resistance: PCB mounted.

2007-08

RATING AND CHARACTERISTICS CURVES (MD1S THRU MD7S)

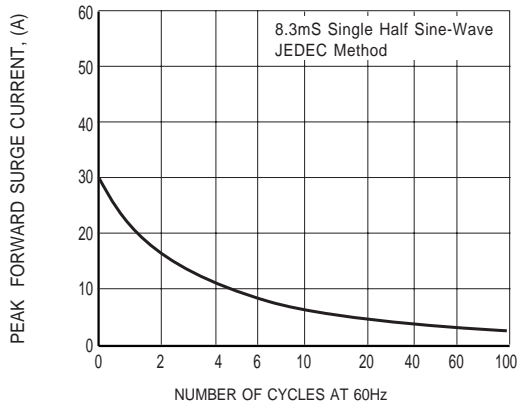


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

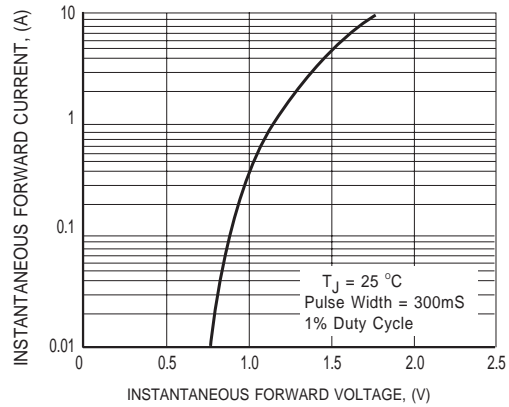


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

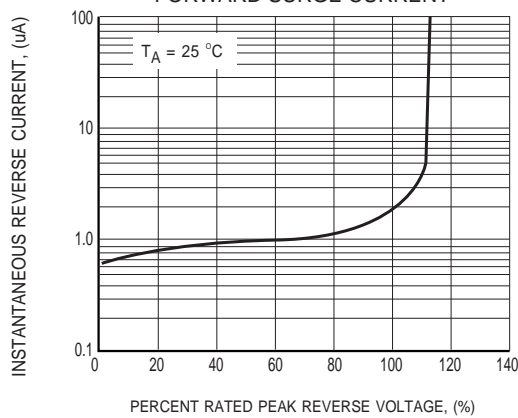


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

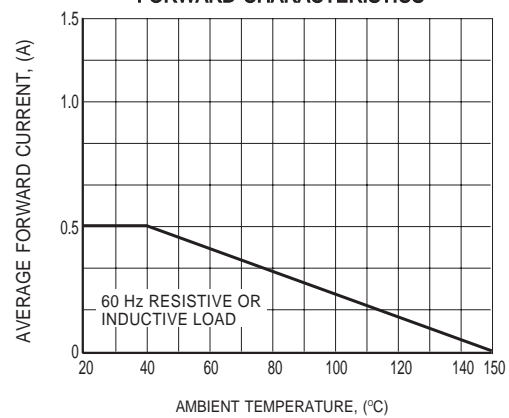


FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

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