

MDA970G1 THRU MDA970G10

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

FEATURES

- * Ideal for printed circuit board
- * Surge overload rating: 150 amperes peak
- * Mounting position: Any
- * Weight: 4.8 grams

MECHANICAL DATA

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

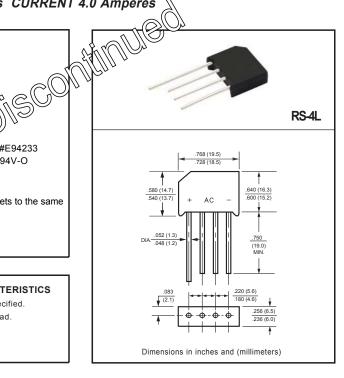
DISCONTINUED-

"This series is replaced by the RS40XL series that meets to the same fit and function parameters.

The RS40XL series is preferred for PCB assembly."

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^{\circ}$ 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 (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | MDA970G1 | MDA970G2 | MDA970G3 | MDA970G5 | MDA970G6 | MDA970G8 | MDA970G10 | 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 at T _A = 50°C | I _O | 4.0 | | | | | | Amps | |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150 | | | | | | Amps | |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 10 | | | | | | | °C/W |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 28 | | | | | | | |
| Typical Junction Capacitance (Note 3) | CJ | 40 | | | | | | pF | |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | | | | | °C | | |

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

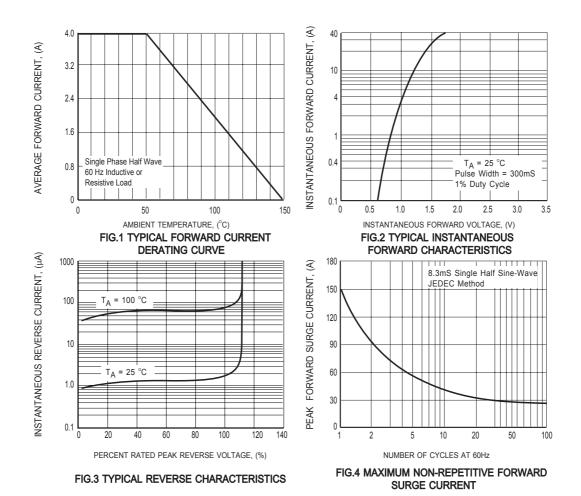
| CHARACTERISTICS | | SYMBOL | MDA970G1 | MDA970G2 | MDA970G3 | MDA970G5 | MDA970G6 | MDA970G8 | MDA970G10 | UNITS |
|---|-------------------------|------------------|----------|----------|----------|----------|----------|----------|-----------|-------|
| Maximum Instantaneous Forward Voltage at 6.28A DC | | V _F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current | @T _A = 25°C | - I _R | 5.0 | | | | | | | μAmps |
| at Rated DC Blocking Voltage | @T _A = 100°C | | 100 | | | | | | | |

NOTES: 1. Thermal Resistance: Heat-sink case mounted or if PCB mounted.

- 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
- Measureed at 1MHz and applied reverse voltage of 4.0 volts.

2007-5

RATING AND CHARACTERISTICS CURVES (MDA970G1 THRU MDA970G10)



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