

**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-0

**DISCONTINUED-**

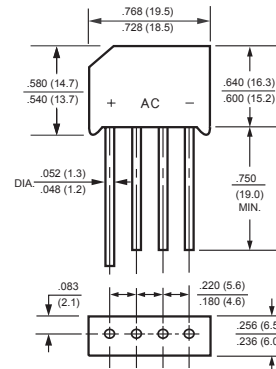
"This series is replaced by the RS40XL series that meets to the same fit and function parameters.  
The RS40XL series is preferred for PCB assembly."

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



RS-4L



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

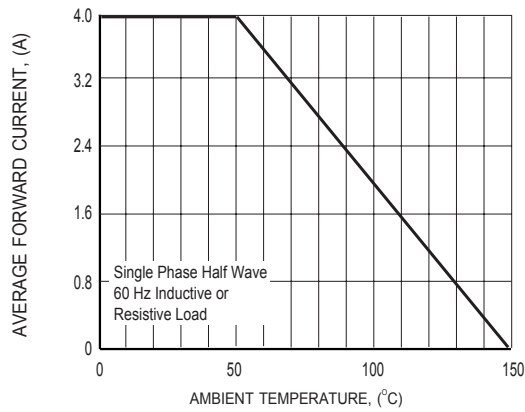
RATINGS	SYMBOL	MDA970G1	MDA970G2	MDA970G3	MDA970G5	MDA970G6	MDA970G8	MDA970G10	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> = 50 °C	I <sub>O</sub>	4.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150							Amps
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	10							°C/W
	R <sub>θJA</sub>	28							
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	40							pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

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

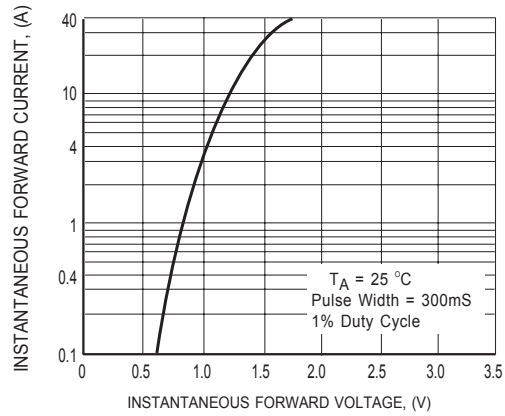
CHARACTERISTICS	SYMBOL	MDA970G1	MDA970G2	MDA970G3	MDA970G5	MDA970G6	MDA970G8	MDA970G10	UNITS
Maximum Instantaneous Forward Voltage at 6.28A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@ T <sub>A</sub> = 25 °C							μAmps
		@ T <sub>A</sub> = 100 °C							

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
3. Measured at 1MHz and applied reverse voltage of 4.0 volts.

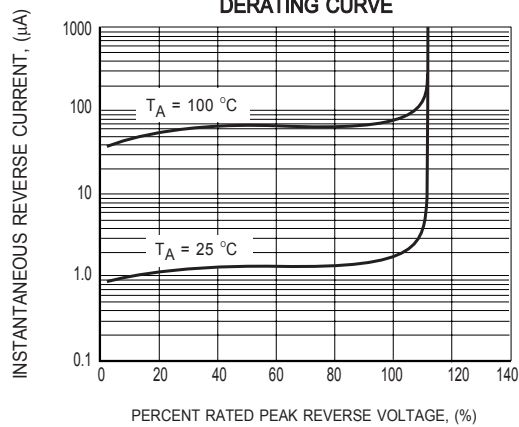
# RATING AND CHARACTERISTICS CURVES ( MDA970G1 THRU MDA970G10 )



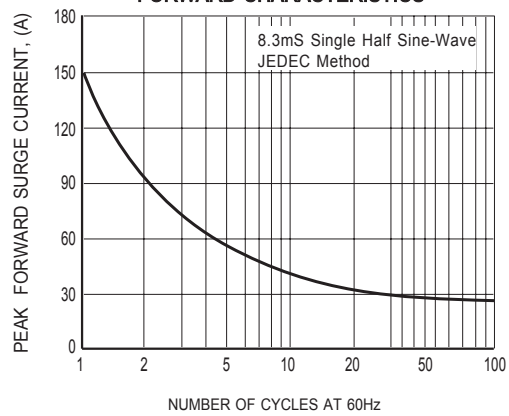
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

## DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.