RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

MDA970G1 THRU MDA970G10

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

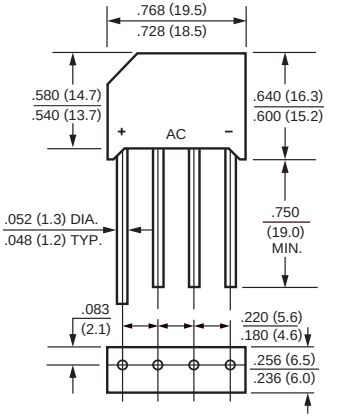
FEATURES

* Ideal for printed circuit board
* Surge overload rating: 200 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

RS-4L



Dimensions in inches and (millimeters)

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°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 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 = 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}	200							Amps
Typical Thermal Resistance from junction to case	$R\theta_{JC}$	10							°C/W
Typical Thermal Resistance from junction to ambient	$R\theta_{JA}$	28							
Operating Temperature Range	T_J	-55 to + 150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	MDA970G1	MDA970G2	MDA970G3	MDA970G5	MDA970G6	MDA970G8	MDA970G10	UNITS
Maximum Forward Voltage Drop per Bridge Element at 6.28A DC		V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@T_A = 25°C	I_R	5.0							uAmps
	@T_A = 100°C		1							mAmps

Note: "Fully ROHS compliant","100% Sn plating(Pb-free).

2005-3

REV: A

RATING AND CHARACTERISTIC CURVES (MDA970G1 THRU MDA970G10)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

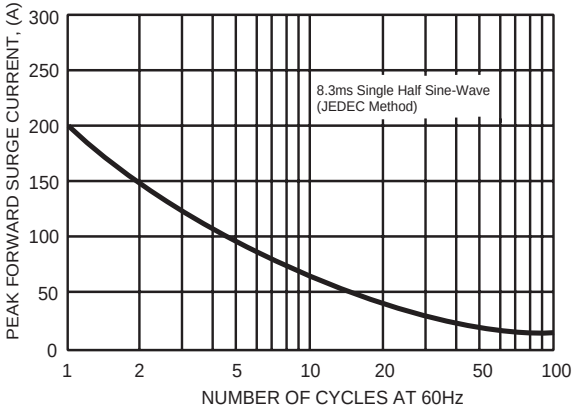


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

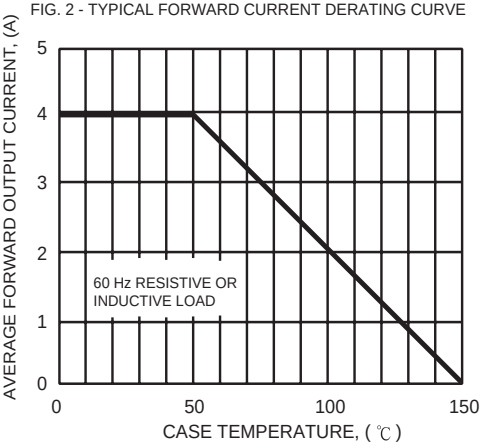


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

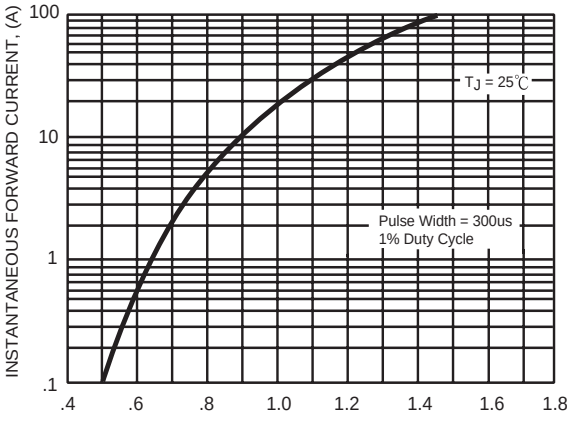


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS