RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

MDA100G THRU MDA110G

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

* Low cost
* Low leakage
* Low forward voltage
* Mounting position: Any
* Weight: 1.26 grams

MECHANICAL DATA

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



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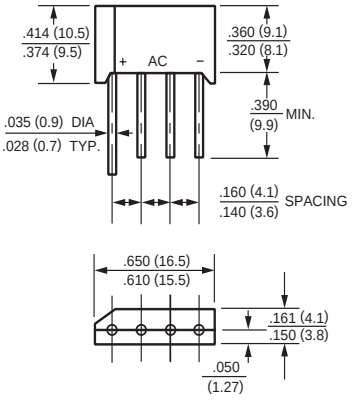

Dimensions in inches and (millimeters)

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	MDA100G	MDA101G	MDA102G	MDA104G	MDA106G	MDA108G	MDA110G	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 = 75°C	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Operating Temperature Range	T_J	-55 to + 125							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

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

CHARACTERISTICS		SYMBOL	MDA100G	MDA101G	MDA102G	MDA104G	MDA106G	MDA108G	MDA110G	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.57A DC		V_F	1.3							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@T_A = 25°C	I_R	10							uAmps
	@T_A = 100°C		1							mAmps

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RATING AND CHARACTERISTIC CURVES (MDA100G THRU MDA110G)

FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

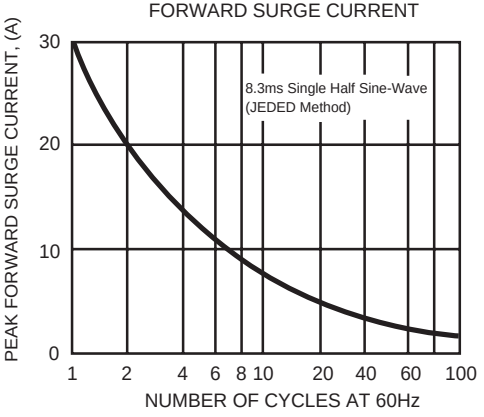

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

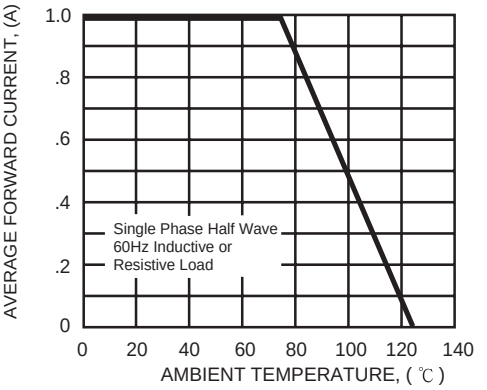

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

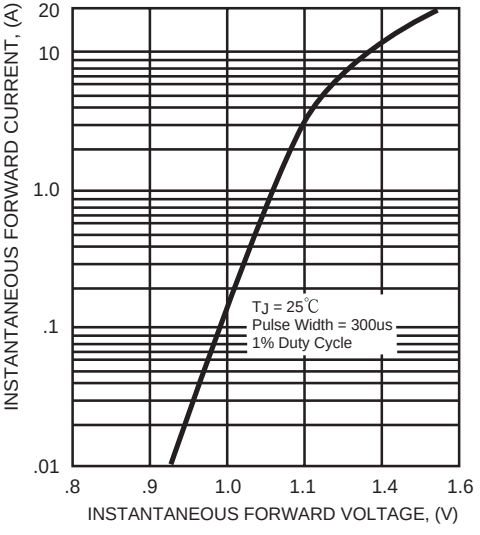

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

