RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

RS401L
THRU
RS407L

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Ampere

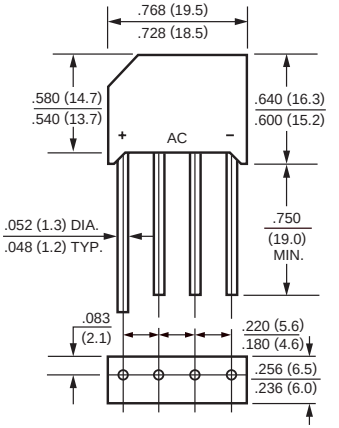
FEATURES

* Ideal for printed circuit board
* Surge overload rating: 200 amperes peak
* Mounting position: Any
* Weight: 4.8 grams
* Molded structure

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	RS401L	RS402L	RS403L	RS404L	RS405L	RS406L	RS407L	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 T_A = 75°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
Operating Temperature Range	T_J	-55 to + 150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C
Typical Junction Capacitance (Note)	C_J	40							pF

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

CHARACTERISTICS		SYMBOL	RS401L	RS402L	RS403L	RS404L	RS405L	RS406L	RS407L	UNITS
Maximum Forward Voltage Drop per Bridgeat Element at 4.0A DC		V_F	1.0							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

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (RS401L THRU RS407L)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

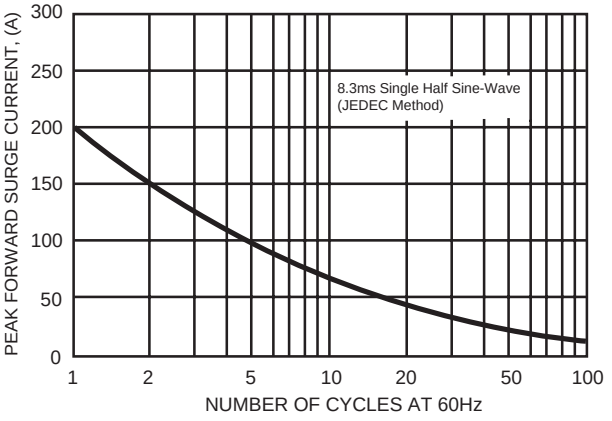


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

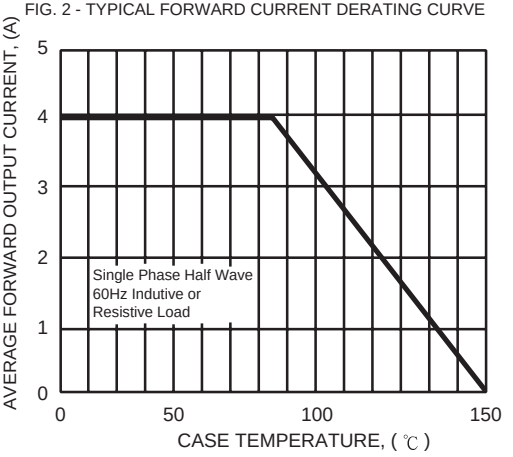


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

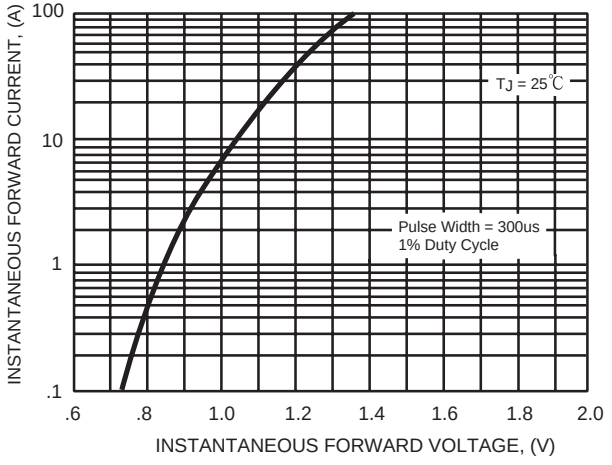


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS