

RS501 THRU RS507

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 5.0A

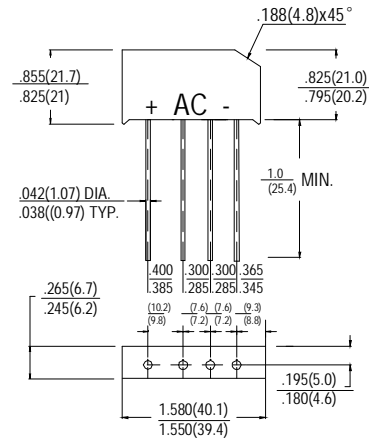
FEATURES

- Ideal for printed circuit board
- Surge overload ratings-150 Amperes

MECHANICAL DATA

- **Case:** plastic encapsulation
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** As marked
- **Mounting position:** Any
- **Weight:** 2.74 grams

RS-5



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	RS501	RS502	RS503	RS504	RS505	RS506	RS507	units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Bridge Input Voltage	V_{RMS}	46	88	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward rectified Output Current at $T_A=75^\circ\text{C}$	I_o	5.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	150							A	
Maximum Forward Voltage Drop per element at 2.5A DC	V_F	1.1							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I_R	@ $T_A=25^\circ\text{C}$	10							μA
		@ $T_A=100^\circ\text{C}$	500							
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	10							A^2S	
Typical Junction Capacitance (Note 1)	C_J	15							pF	

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

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.47×0.47 (12x12mm) copper pads