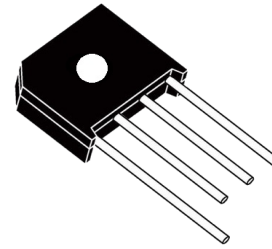


**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 10 A**

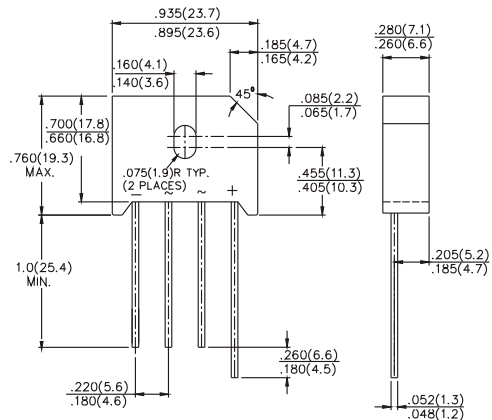


### Features

- I Low cost
- I High forward surge current capability
- I Ideal for printed circuit board

### Mechanical Data

- I Case: Transfer molded plastic
- I Terminal: Lead solderable per MIL-STD-202E method 208C
- I Polarity: Polarity symbols marked on case
- I Mounting: Thru hole for #6 screw, 5 in.-lbs torque max
- I Weight: 0.27 ounce, 7.59 gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RS1001	RS1002	RS1003	RS1004	RS1005	RS1006	RS1007	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Output Current, at	$T_C=50$ (Note 2)	10.0							Amps
	$T_C=100$ (Note 2)	8.0							
	$T_A=45$ (Note 3)	6.0							
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	373							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage Drop per bridge element at 10.0A	$V_F$	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	$T_A=25$	5.0							$\mu\text{Amps}$
	$T_A=100$	1.0							mAmps
Typical Junction Capacitance (Note 1)	$C_J$	200							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	5.0							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

**NOTES:**

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 6.0 x 5.5 x 0.24 thick (15x14x0.6cm) Al. plate.
3. Unit mounted in free air, no heatsink, P.C.B at 0.375 (9.5mm) lead length with 0.5 x 0.5 (12x12cm) copper pads



FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

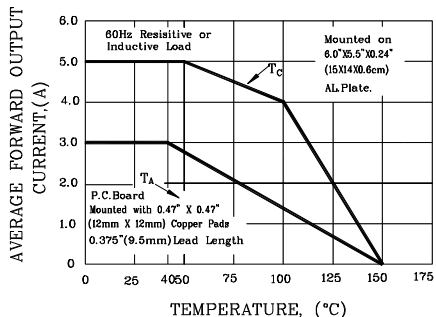


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

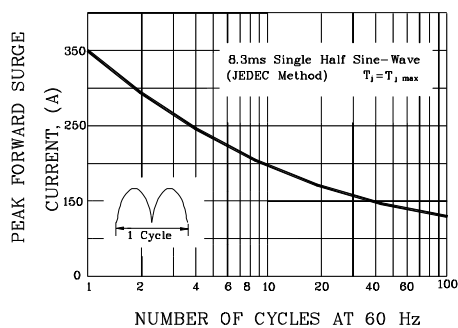


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

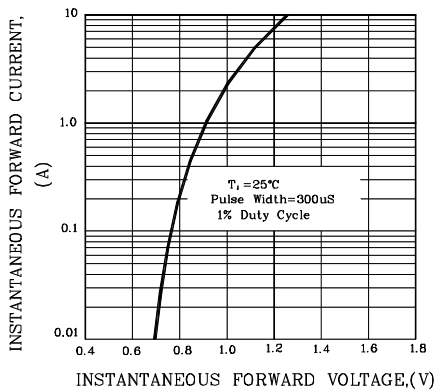


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

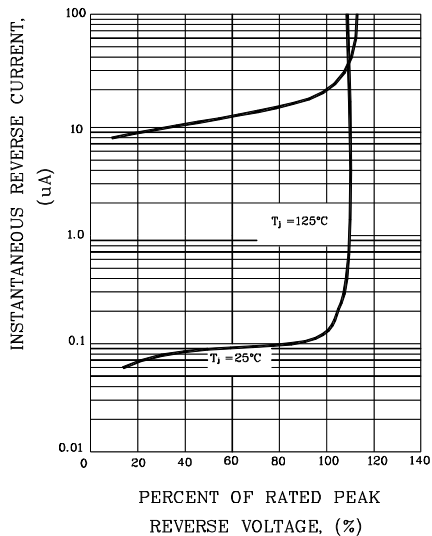


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

