



## SINGLE PHASE BRIDGE RECTIFIER

**RS1001 THRU RS1007**

**VOLTAGE RANGE  
CURRENT**

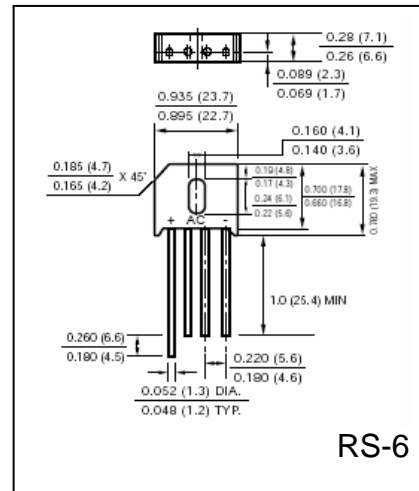
**50 to 1000 Volts  
10.0 Ampere**

### FEATURES

- UL recognized component under file number E127707
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C / 10 seconds

### MECHANICAL DATA

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



### 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%

	SYMBOLS	RS 1001	RS 1002	RS 1003	RS 1004	RS 1005	RS 1006	RS 1007	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 Current, @ $T_C = 100^\circ\text{C}$ (Note 1) @ $T_A = 45^\circ\text{C}$ (Note 2)	$I_{(AV)}$	10 8							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200							Amps
Rating for Fusing ( $t < 8.3\text{mS}$ )	$I^2t$	166							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop per Bridge element 5.0A	$V_F$	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	510 0.5							$\mu\text{A}$ mA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	105							pF
Typical Thermal Resistance	$R_{\theta Jc}$	22							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	(-55 to +150)							$^\circ\text{C}$

### Notes:

1. Unit mounted on 3.0" x 3.0" x 0.11" (7.5cm x 7.5cm x 0.3cm) AL Plate
2. Unit mounted un free air, no heat sink, PCB with 0.375" (9.5mm) lead length on 0.5" x 0.5" (12cm x 12cm) copper pads



RATINGS AND CHARACTERISTIC CURVES RS1001 THRU RS1007

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

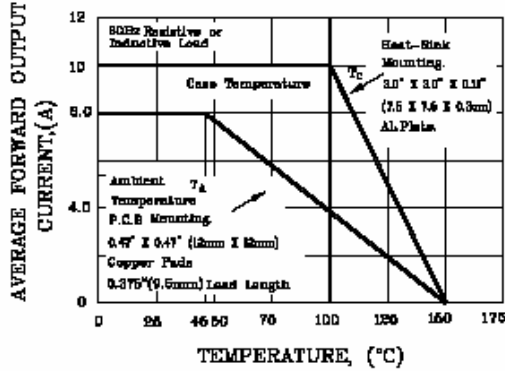


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

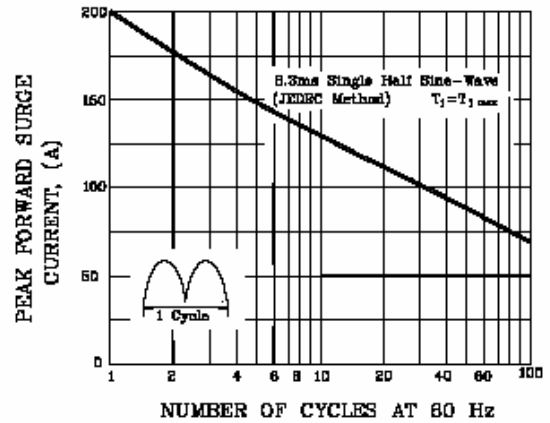


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

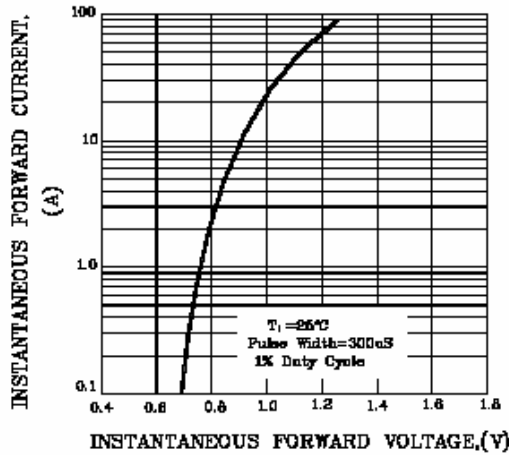


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

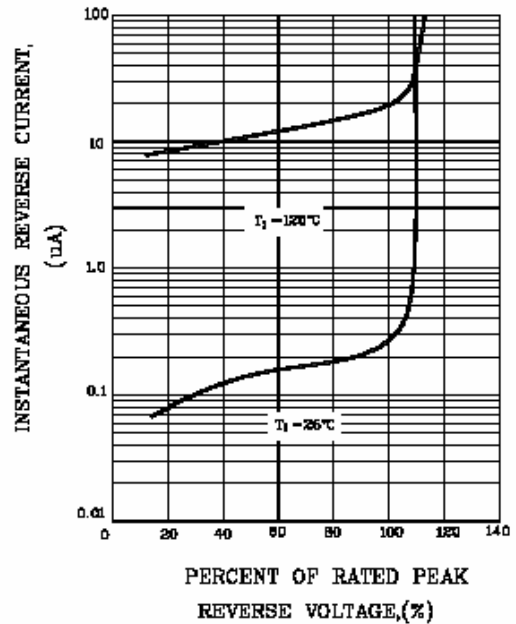


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

