



SINGLE PHASE BRIDGE RECTIFIER

RS1001 THRU RS1007

VOLTAGE RANGE
CURRENT

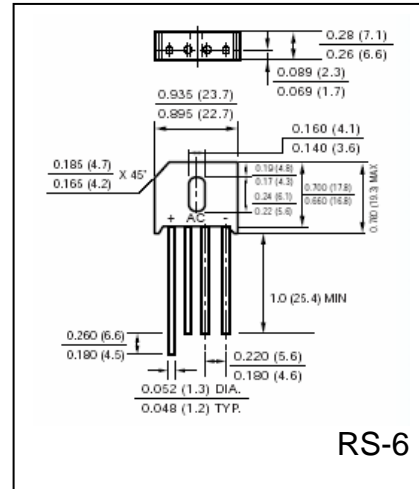
50 to 1000 Volts
10.0 Ampere

FEATURES

- UL recognized
- 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 | | | | | | | A^2s |
| 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 | | | | | | | μA 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

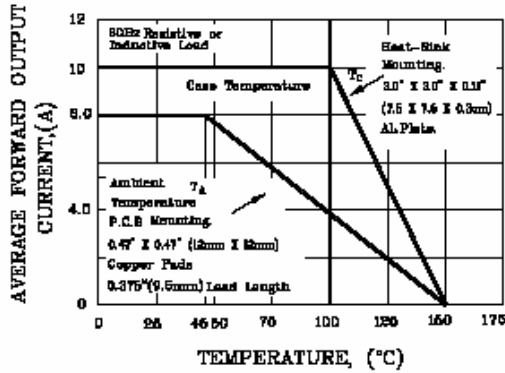


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

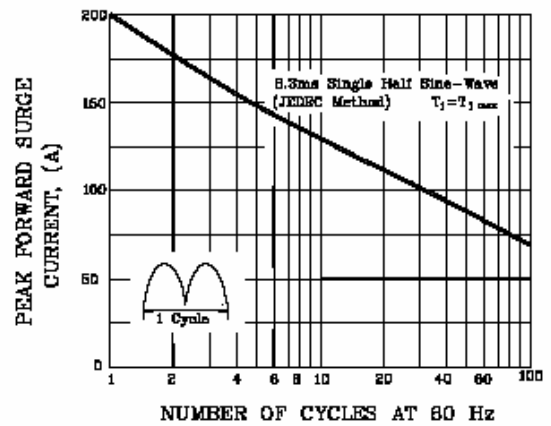


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

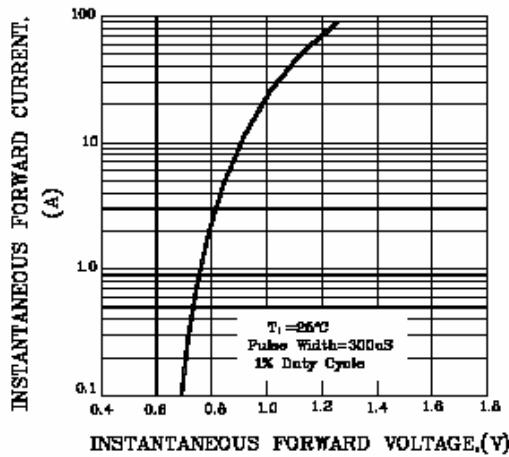


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

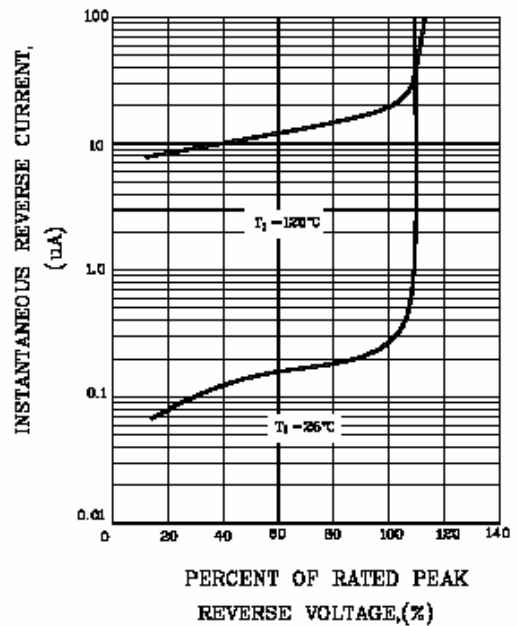


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

