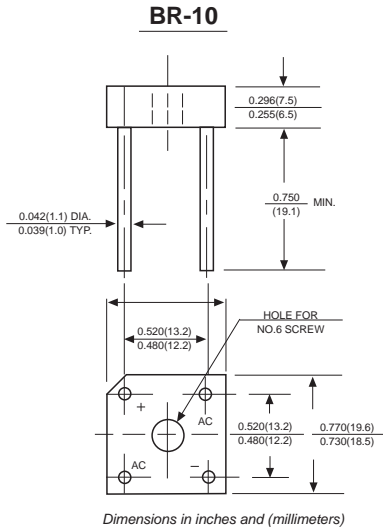


BR1005 THRU BR1010

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 10.0 Amperes



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Mounting: Thru hole for #6 screw, 5in.-lbs. torque max.

Weight: 0.20 ounce, 5.62 grams

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 current derate by 20%.

| | SYMBOLS | BR1005 | BR101 | BR102 | BR104 | BR106 | BR108 | BR1010 | UNITS |
|---|-----------------------------|--------------------|-------|-------|-------|-------|-------|--------|------------------|
| 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 output rectified current at | $T_C=50^{\circ}C$ (Note 1) | 10.0 | | | | | | | Amps |
| | $T_C=100^{\circ}C$ (Note 1) | 6.0 | | | | | | | |
| | $T_A=50^{\circ}C$ (Note 2) | 6.0 | | | | | | | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 150.0 | | | | | | | Amps |
| Rating for Fusing($t < 8.3ms$) | I^2t | 93 | | | | | | | A ² s |
| Maximum instantaneous forward voltage drop per bridge element at 5.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^{\circ}C$ | | | | | | | μA |
| | | $T_A=100^{\circ}C$ | | | | | | | mA |
| Isolation voltage from case to leads | V_{ISO} | 2500 | | | | | | | V _{AC} |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 6.0 | | | | | | | °C/W |
| Operating junction temperature range | T_J | -55 to +125 | | | | | | | °C |
| storage temperature range | T_{STG} | -55 to +150 | | | | | | | °C |

NOTES: 1. Unit mounted on 8.7" x 8.7" x 0.24" thick (22x22x0.6cm) Al. plate.

2. Unit mounted on P.C. board with 0.47" x 0.47" (12x12mm) copper pads, 0.375" (9.5mm) lead length.

RATINGS AND CHARACTERISTIC CURVES BR1005 THRU BR1010

