

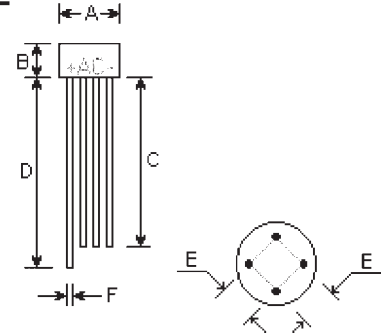
RB151 THRU RB157

SINGLE-PHASE SILICON BRIDGE
Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.5 Amperes

Features

- Surge overload rating - 50 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Mounting Position: Any

RB-15



| DIMENSIONS | | | | | |
|------------|--------|-------|------|------|------|
| DIM | inches | | mm | | Note |
| | Min. | Max. | Min. | Max. | |
| A | 0.340 | 0.360 | 8.6 | 9.1 | ϕ |
| B | 0.130 | 0.150 | 3.3 | 3.8 | |
| C | 1.20 | - | 30.5 | - | |
| D | 1.27 | - | 32.3 | - | |
| E | 0.180 | 0.220 | 4.6 | 5.6 | |
| F | 0.028 | 0.032 | 0.71 | 0.81 | ϕ |

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 | RB151 | RB152 | RB153 | RB154 | RB155 | RB156 | RB157 | 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 rectified current $T_A=25^\circ\text{C}$ | $I_{(AV)}$ | 1.5 | | | | | | | Amps |
| Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load | I_{FSM} | 50.0 | | | | | | | Amps |
| 1 τ Rating for fusing (t<8.35ms) | I^2t | 5.0 | | | | | | | A τ |
| Maximum forward voltage drop per element at 1.0A peak | V_F | 1.0 | | | | | | | Volt |
| Maximum DC reverse current at rated DC blocking voltage per element $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ | I_R | 10.0 1.0 | | | | | | | μA mA |
| Operating temperature range | T_J | -55 to +125 | | | | | | | °C |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | °C |

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – MAXIMUM FORWARD SURGE CURRENT

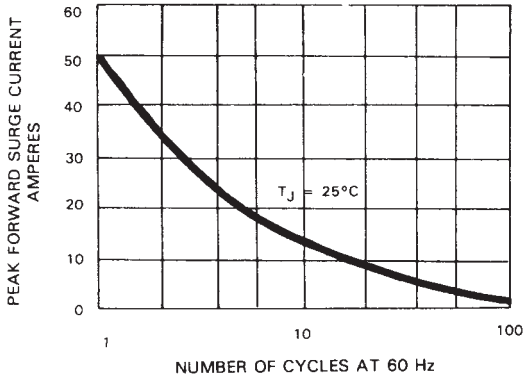


Fig. 2 – DERATING CURVE
OUTPUT RECTIFIED CURRENT

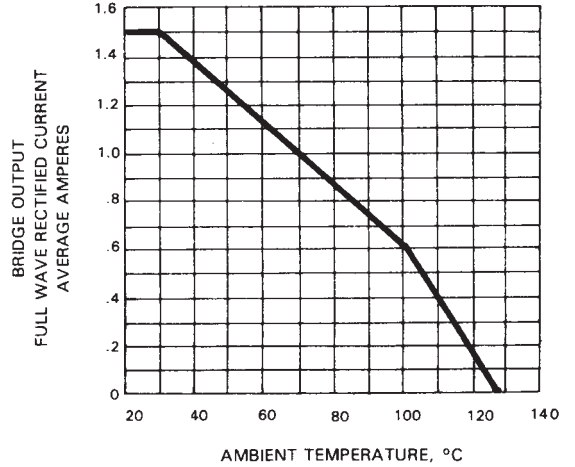


Fig. 3 – TYPICAL FORWARD CHARACTERISTICS

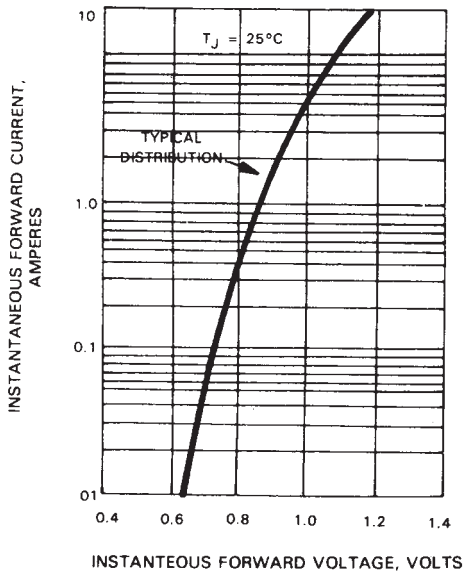


Fig. 4 – TYPICAL REVERSE CHARACTERISTICS

