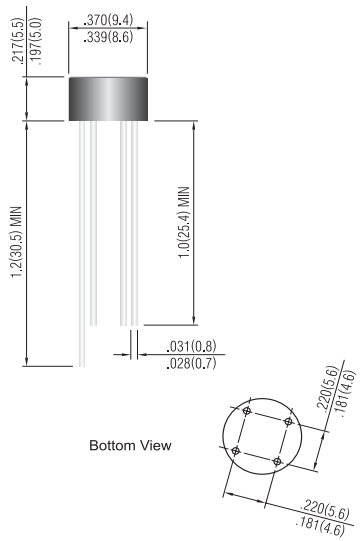
PANJIT SEMI CONDUCTOR

# RB200 SERIES

## 2.0 A SILICON BRIDGE RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 2.0 Amperes

AM / RB-10 / WOB Unit: inch ( mm )




### FEATURES

- Plastic material used carries Underwriters Laboratory recognition.
- High case dielectric strength.
- Typical $I_R$ LESS Than 1uA.
- Exceeds environmental standards of MIL-STD-19500
- Ideal for printed circuit board.
- High temperature soldering guaranteed: 265°C/10 seconds/ .375" (9.5 mm) lead length/5 lbs. (2.3kg) tension
- Component are in compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Reliable low cost construction utilizing molded plastic technique
- Terminals: Leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any
- Weight:1.4 grams.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, Single phase, half wave, 60Hz.
For Capacitive load derate current by 20%.

| PARAMETER | SYMBOL | RB200 | RB201 | RB202 | RB204 | RB206 | RB208 | RB2010 | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Bridge Input Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Output Current .375" (9.5mm ) Lead Length at $T_A$=25°C | $I_{F(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 50 | | | | | | | A |
| $I^2t$ Rating for fusing ( t<8.35ms) | $I^2t$ | 15 | | | | | | | $A^2s$ |
| Maximum Forward Voltage Drop per Element at 1.0A | $V_F$ | 1.0 | | | | | | | V |
| Maximum DC Reverse Current $T_A$=25 °C<br>at Rated DC Blocking Voltage $T_A$=100 °C | $I_R$ | 10<br>1 | | | | | | | µA |
| Typical Junction capacitance per bridge element (Note 1) | $C_J$ | 30 | | | | | | | pF |
| Operating Junction Temperature Range | $T_J$ | -55 to + 125 | | | | | | | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to + 150 | | | | | | | °C |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

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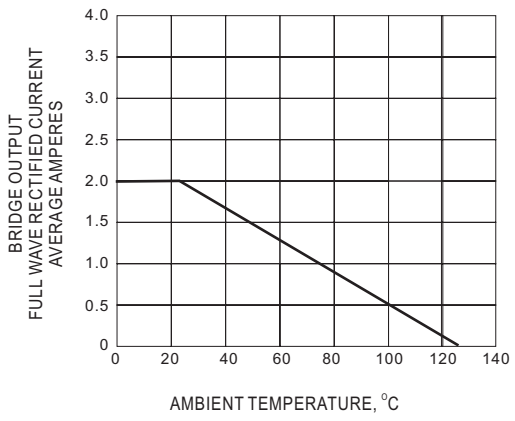


Fig.1 DERATING CURVE OUTPUT RECTIFIED CURRENT

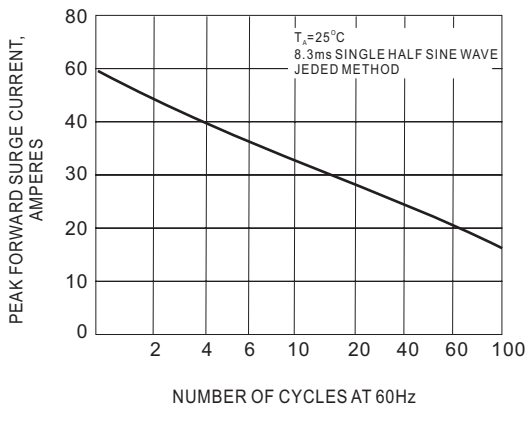


Fig.2MAXIMUM NON-REPETITIVE PEAK FORWARD CURRENT

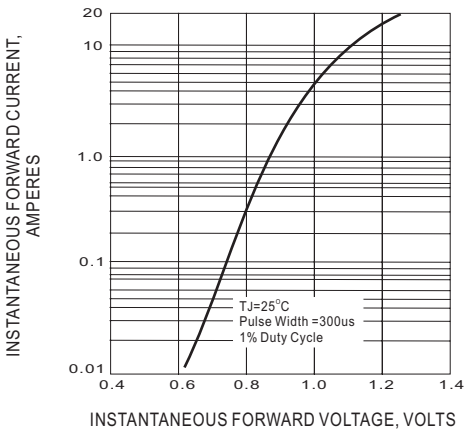


Fig.3 TYPICAL FORWARD CHARACTERISTIC

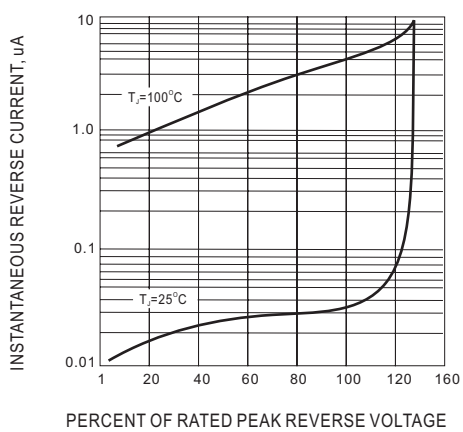


Fig.4 TYPICAL REVERSE CHARACTERISTICS

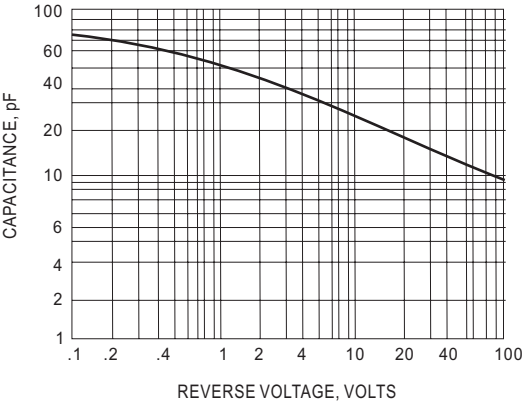


Fig.5 TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT