RC201 THRU RC207

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes

FEATURES

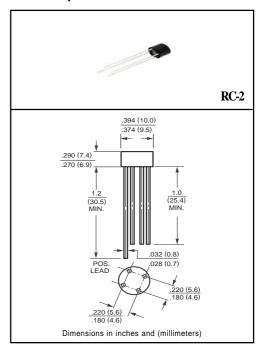
- * Reverse voltage to 1000v
- * Surge overload ratings to 50 amperes peak
- * Good for printed circuit board assembly
- * Mounting position: Any
- * Weight: 1.88 grams
- * Silver-plated copper leads

MECHANICAL DATA

- * UL listed the recognized component directory, file #E94233
- * Epoxy: Device has UL flammability classification 94V-O

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | RC201 | RC202 | RC203 | RC204 | RC205 | RC206 | RC207 | UNITS |
|---|---------|--------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Current at TA = 25°C | lo | 2.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave | IFSM 50 | | | | | | Amno | | |
| superimposed on rated load (JEDEC method) | | | | | | | | Amps | |
| Typical Thermal Resistance from junction to ambient | RθJA | 40 | | | | | | °C/W | |
| Typical Thermal Resistance from junction to case | RθJC | 12 | | | | | | | |
| Operating Temperature Range | TJ | -55 to + 150 | | | | | | ٥C | |
| Storage Temperature Range | Тѕтс | -55 to + 150 | | | | | | | ۰C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | RC201 | RC202 | RC203 | RC204 | RC205 | RC206 | RC207 | UNITS |
|--|-------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Forward Voltage Drop per Bridge Element at 2.0A DC | | VF | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at Rated | @Ta = 25°C | lo. | 5.0 | | | | | | | uAmps |
| DC Blocking Voltage per element | @Ta = 125°C | lR | | | | 0.5 | | | | mAmps |

RATING AND CHARACTERISTIC CURVES (RC201 THRU RC207)

FIG. 1 - MAXIMUM FORWARD SURGE CURRENT 60 PEAK FORWARD SURGE CURRENT, (A) 50 8.3ms Single Half Sine-Wave (JEDED Method) 40 30 20 0 2 1 6 8 1 0 20 40 60 4 100 NUMBER OF CYCLES AT 60Hz

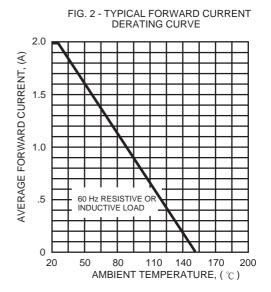
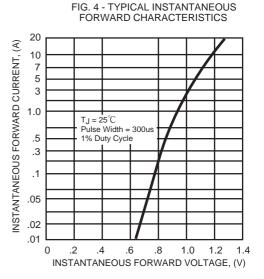


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS 10 INSTANTANEOUS REVERSE CURRENT, (uA) 6 4 2 . TJ = 100℃ 1.0 .6 .4 .2 .1 .06 .04 T_J = 25°C .02 .01 0 20 40 60 80 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)



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RC201 RC203 RC207 RC202 RC204 RC206