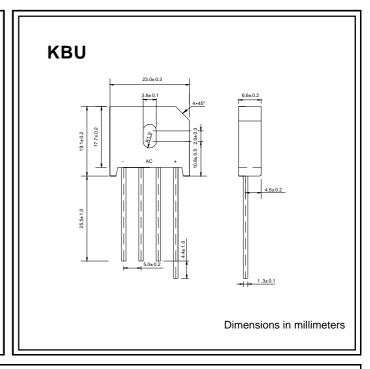
# **SILICON BRIDGE RECTIFIERS**

VOLTAGE RANGE: 50 --- 1000 V

CURRENT: 6.0 A

### **FEATURES**

- ♦ Surge overload rating to 150 Amperes peak
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

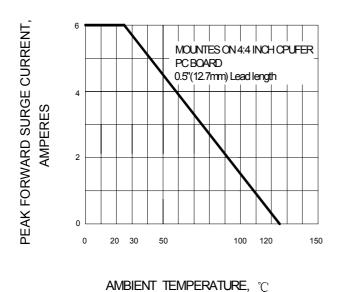
Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

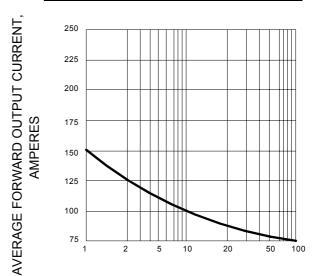
|   |                    | RS601       | RS602 | RS603 | RS604 | RS605 | RS606 | RS607 | UNITS         |
|---|--------------------|-------------|-------|-------|-------|-------|-------|-------|---------------|
| Maximum recurrent peak reverse voltage  | $V_{RRM}$          | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V             |
| Maximum RMS 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 forw ard output current @T <sub>A</sub> =50°€                                     | I <sub>F(AV)</sub> | 6.0         |       |       |       |       |       |       | А             |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load               | I <sub>FSM</sub>   | 150.0       |       |       |       |       |       |       | А             |
| Maximum instantaneous forward voltage at 3.0 A  | V <sub>F</sub>     | 1.0         |       |       |       |       |       |       | V             |
| Maximum reverse current $@T_A = 25 ^{\circ}C$ at rated DC blocking voltage $@T_A = 100 ^{\circ}C$ | I <sub>R</sub>     | 10.0<br>1.0 |       |       |       |       |       |       | μA<br>mA      |
| Operating junction temperature range  | T <sub>J</sub>     | - 55 + 125  |       |       |       |       |       |       | ${\mathbb C}$ |
| Storage temperature range   | T <sub>STG</sub>   | - 55 + 150  |       |       |       |       |       |       | ${\mathbb C}$ |

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#### FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE



#### FIG.2 - MAXIMUM FORWARD SURGE CURRENT

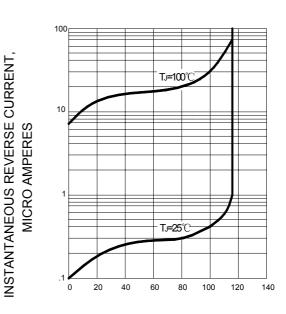


NUMBER OF CYCLES AT 60Hz

#### FIG.3 - TYPICAL FORWARD CHARACTERISTIC

## 100 INSTANTANEOUS FORWARD CURRENT, A 40 20 10 **AMPERES** 3.0 2.0 1.0 Tj=25°C Pulse Width 0.4 **=300.6** 0.2 0.1 0.8 0.9

#### FIG.4 - TYPICAL REVERSE CHARACTERISTIC



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

PERCENT OF RATED PEAK REVERSE VOLTAGE