

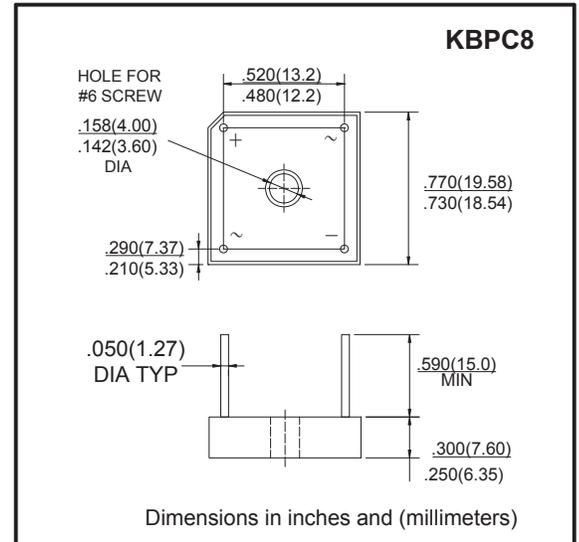
## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

### FEATURES

- Glass Passivated Chip
- This series is UL recognized
- High forward surge current capability
- Ideal for printed circuit board
- High isolation voltage from case to leads
- High temperature soldering guaranteed: 260 °C/10 second, at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C.
- Polarity: Polarity symbols molded on case Mounting:
- Through hole for #6 screw, 5 in.-lbs torque max.
- Weight: 0.20ounce, 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 derate current 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 $T_C=50^\circ C$<br>Rectified Output Current, at                            | $I_{(AV)}$      | 10.0              |       |       |       |       |       |        | Amps             |
| Peak Forward Surge Current 8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 150               |       |       |       |       |       |        | Amps             |
| Rating for Fusing ( $t < 8.3ms$ )   | $I^2T$          | 166               |       |       |       |       |       |        | A <sup>2</sup> S |
| Maximum Instantaneous Forward Voltage at 5.0A   | $V_F$           | 1.1               |       |       |       |       |       |        | Volts            |
| Maximum DC Reverse Current at rated<br>DC blocking voltage  | $I_R$           | $T_A=25^\circ C$  |       |       |       |       |       |        | $\mu$ Amps       |
|   |                 | $T_A=150^\circ C$ |       |       |       |       |       |        | mAmps            |
| Isolation Voltage from case to leads  | $V_{ISO}$       | 2500              |       |       |       |       |       |        | V <sub>AC</sub>  |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JC}$ | 6.0               |       |       |       |       |       |        | °C/W             |
| Operating Temperature Range   | $T_J$           | -55 to +150       |       |       |       |       |       |        | °C               |
| Storage Temperature Range   | $T_{STG}$       | -55 to +150       |       |       |       |       |       |        | °C               |

#### NOTES:

1. Unit mounted on 8.7"×8.7"×0.24" thick (22×22×0.6mm) Al. plate.
2. Unit mounted on P.C.B at 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.

**SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER**

**RATING AND CHARACTERISTIC CURVES BR1005 - BR1010**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

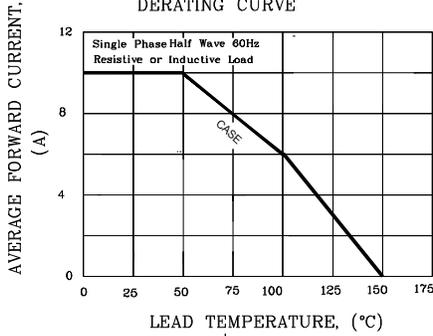


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

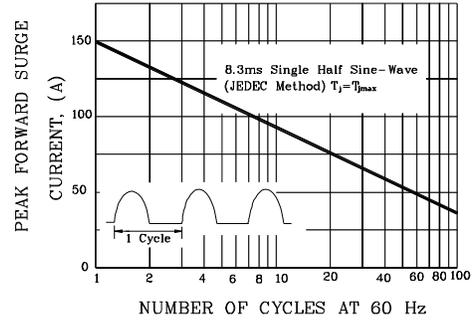


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

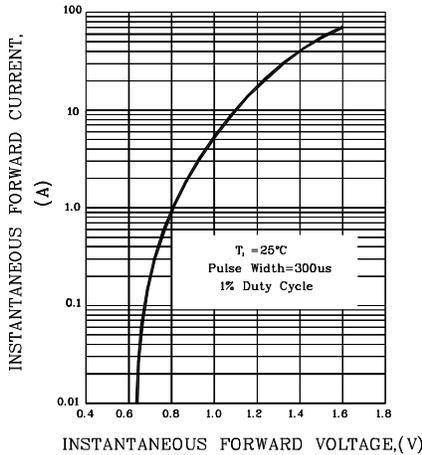


FIG.4-TYPICAL REVERSE CHARACTERISTICS

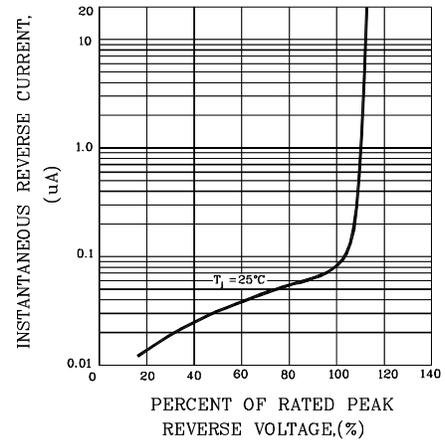
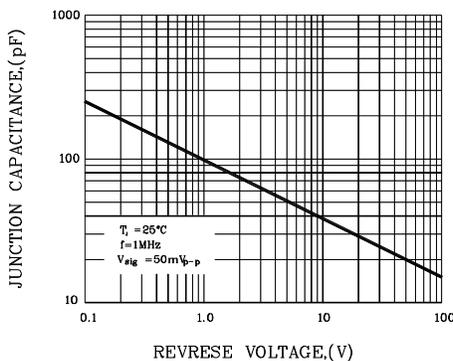


FIG.5-TYPICAL JUNCTION CAPACITANCE



**Disclaimer**

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.