

VI. Bridge Rectifier

1.0A Glass Passivated Bridge Rectifier DB101G~DB107G

(Package: DB)

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| <p><u>FEATURES</u></p> <ul style="list-style-type: none"> • Rating to 1000V PRV • Ideal for printed circuit board • Low forward voltage drop, high current capability • Reliable low cost construction utilizing molded plastic technique results in inexpensive product • The plastic material has Underwriters Laboratory Flammability Classification 94V-0 <p><u>MECHANICAL DATA</u></p> <ul style="list-style-type: none"> • Polarity : As marked on body • Mounting position : Any • Weight : 0.02 ounces, 0.38 grams | <p>Case: DB Dimensions in inches and (millimeters)</p> |
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Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

| Characteristic | Symbol | DB 101G | DB 102G | DB 103G | DB 104G | DB 105G | DB 106G | DB 107G | Units |
|--|-------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| Maximum recurrent 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 @ $T_a = 40$ | I_o | 1.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30 | | | | | | | Amps |
| Maximum forward voltage at 1.0A DC | V_F | 1.1 | | | | | | | Volts |
| Maximum DC reverse current @ $T_j=25$ at rated DC blocking voltage @ $T_j=125$ | I_R | 10 500 | | | | | | | μA |
| I^2t Rating for Fusing ($t < 8.3ms$) | I^2t | 10.4 | | | | | | | A^2s |
| Typical junction capacitance per element (Note 1) | C_j | 25 | | | | | | | PF |
| Typical thermal resistance (Note 2) | R_{th-JA} | 40 | | | | | | | / W |
| Operating temperature range | T_j | -55 to +150 | | | | | | | |
| Storage temperature range | T_{stg} | -55 to +150 | | | | | | | |

Note:

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

2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5*0.5" (13*13mm) copper pads

Ratings and Characteristic Curves of DB101G~DB107G

FIG.1-FORWARD CURRENT DERATING CURVE

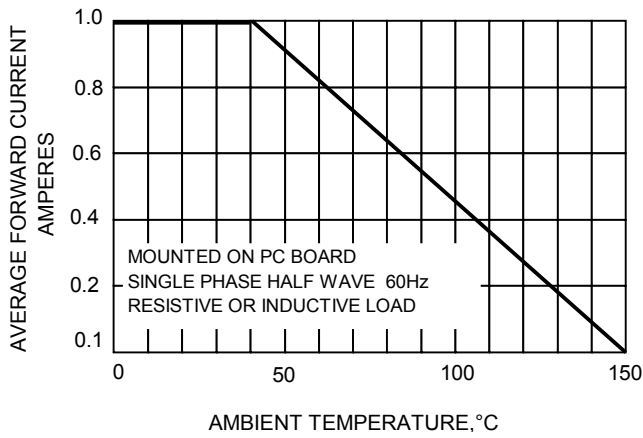


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

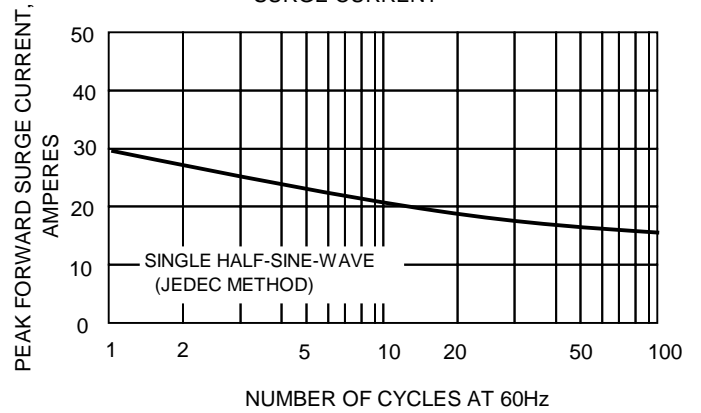


FIG.3-TYPICAL JUNCTION CAPACITANCE

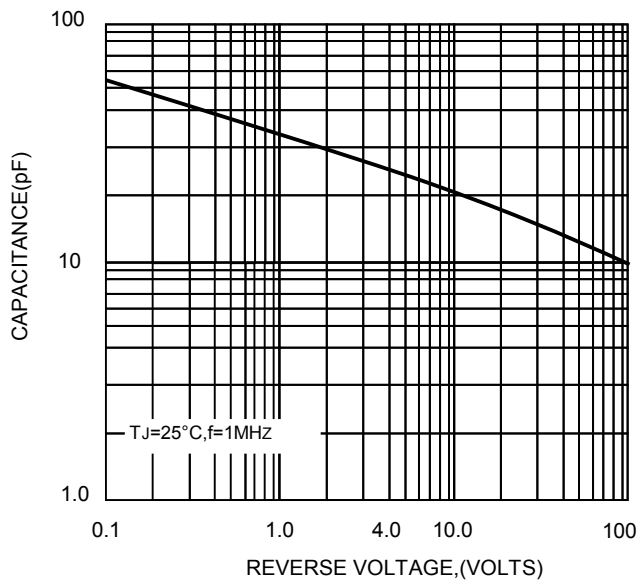


FIG.4-TYPICAL FORWARD CHARACTERISTICS

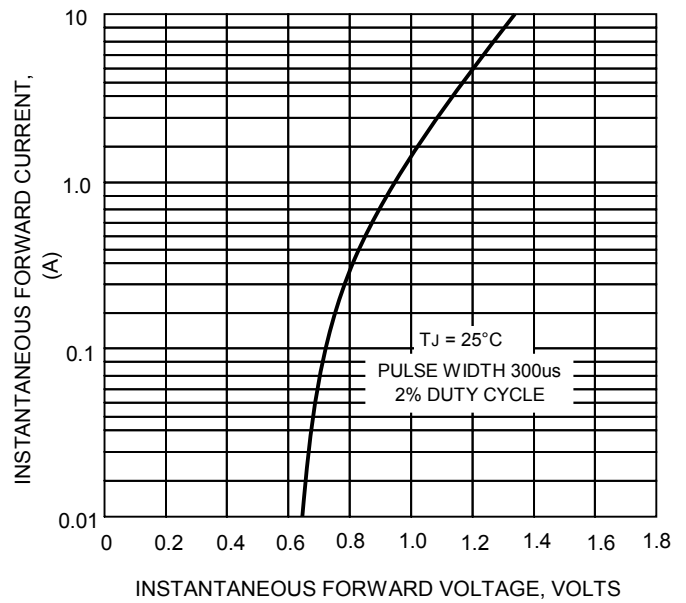


FIG.5-TYPICAL REVERSE CHARACTERISTICS

