

SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS SINGLE-PHASE GLASS BRIDGE DB151 THRU DB157 50 to 1000 V 1.5 A

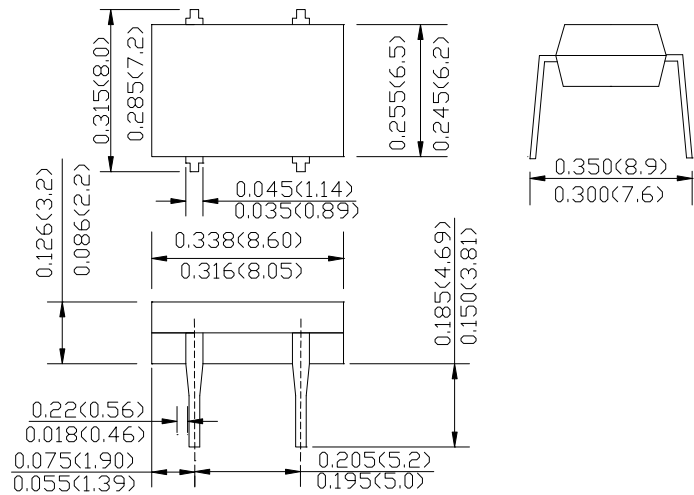
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead in plated copper
- The plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Polarity: as marked on body
- Weight: 0.02 ounces, 0.38 grams
- Mounting position: Any

DB-1



Dimensions in inches and (millimeters)

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 | DB 151 | DB 152 | DB 153 | DB 154 | DB 155 | DB 156 | DB 157 | 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 @ $T_A = 40^\circ\text{C}$ | $I_{(AV)}$ | 1.5 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 50 | | | | | | | Amp |
| Maximum DC Forward Voltage drop per element at A DC | V_F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current at rated @ $T_A = 25^\circ\text{C}$ DC Blocking Voltage Per Element @ $T_A = 125^\circ\text{C}$ | I_R | 10 500 | | | | | | | μAmp |
| $I^2 t$ Rating for fusing ($t < 8.3\text{ms}$) | $I^2 t$ | 10.4 | | | | | | | A^2S |
| Typical Junction Capacitance per element (Note2) | C_J | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note3) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Measured at 1.0MHz and applied reverse of voltage of 4.0V DC.
2. Thermal Resistance from Junction to ambient mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads.

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RATINGS AND CHARACTERISTIC CURVES (DB151S THRU DB157S)

FIG. 1 - FORWAED CURRENT DERATING CURVE

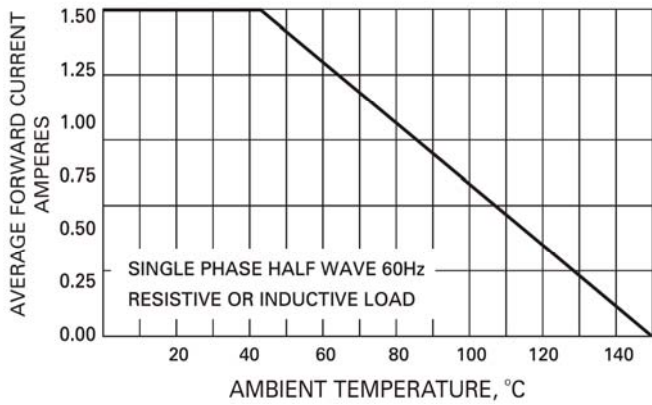


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

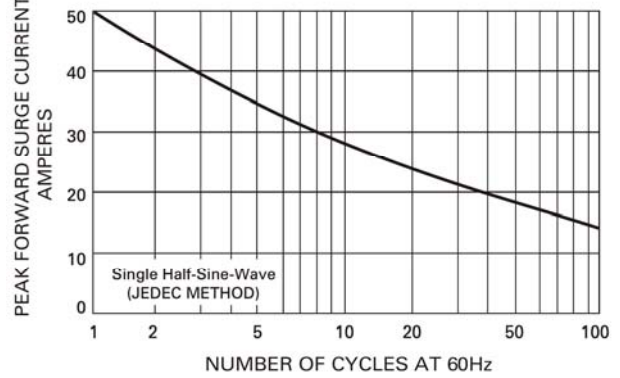


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

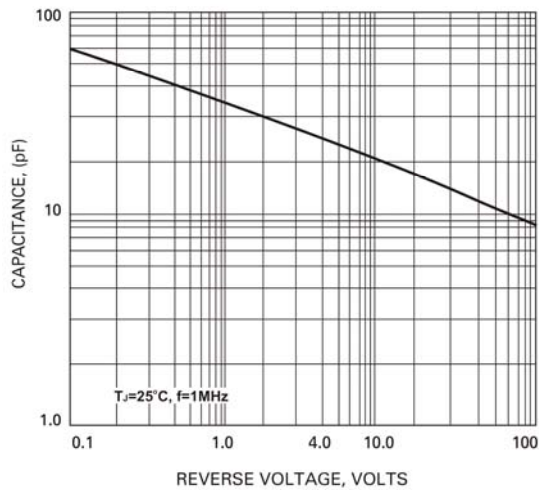


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

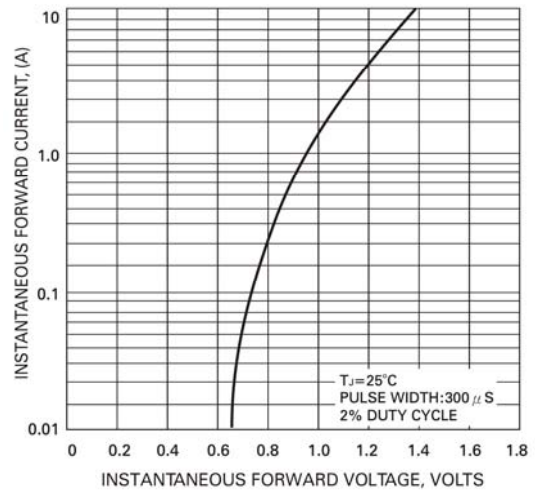


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

