



**SURFACE MOUNT BRIDGE**

**DB101S THRU DB107S  
DF005S THRU DB10S**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

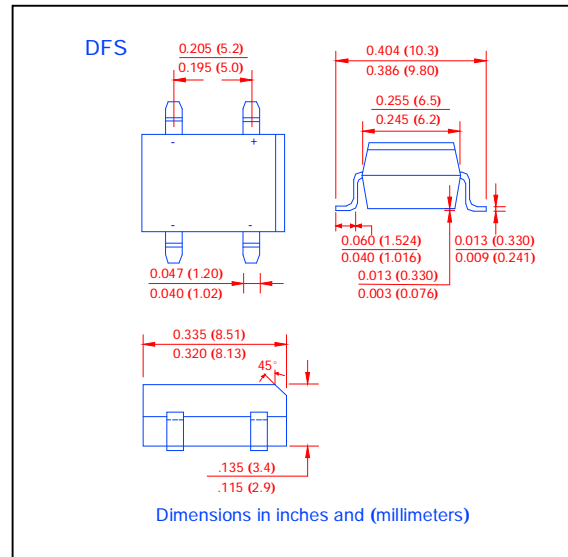
**1.0 Ampere**

**FEATURES**

- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals

**MECHANICAL DATA**

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.04 ounce, 1.0 gram



**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           | DB101S<br>DF005S | DB102S<br>DF01S | DB103S<br>DF02S | DB104S<br>DF04S | DB105S<br>DF06S | DB106S<br>DF08S | DB107S<br>DF10S | UNIT         |
|---|-------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------|
| Maximum Reverse Peak Repetitive 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 Output Current, 0.06”(1.5mm) lead length at $T_A=40^\circ C$ (Note 2) | $I_{(AV)}$        | 1.0              |                 |                 |                 |                 |                 |                 | Amps         |
| Peak Forward Surge Current<br>8.3ms single half sine wave superimposed on rated load (JEDEC Method)     | $I_{FSM}$         | 50               |                 |                 |                 |                 |                 |                 | Amps         |
| Rating for Fusing ( $t < 8.3ms$ )   | $I^2t$            | 10               |                 |                 |                 |                 |                 |                 | $A^2s$       |
| Maximum Instantaneous Forward Voltage drop<br>Per Bridge element 1.0A                                   | $V_F$             | 1.1              |                 |                 |                 |                 |                 |                 | Volts        |
| Maximum Reverse Current at rated DC blocking voltage per element  | $T_A=25^\circ C$  | $I_R$            |                 |                 |                 |                 |                 |                 | $\mu Amps$   |
|   | $T_A=125^\circ C$ | 0.5              |                 |                 |                 |                 |                 |                 | mAmps        |
| Typical Junction Capacitance (NOTE 1)   | $C_J$             | 25               |                 |                 |                 |                 |                 |                 | $^\circ C/W$ |
| Typical Thermal Resistance (NOTE 2)   | $R_{\theta JA}$   | 40               |                 |                 |                 |                 |                 |                 | $V_{AC}$     |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$    | (-55 to +150)    |                 |                 |                 |                 |                 |                 | $^\circ C$   |

**Notes:** 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.  
2. Unit mounted on P.C.B. with 0.51”x0.51” ( 13x13mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES DF005S THRU DF10S  
DB101S THRU DB107S

FIG. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

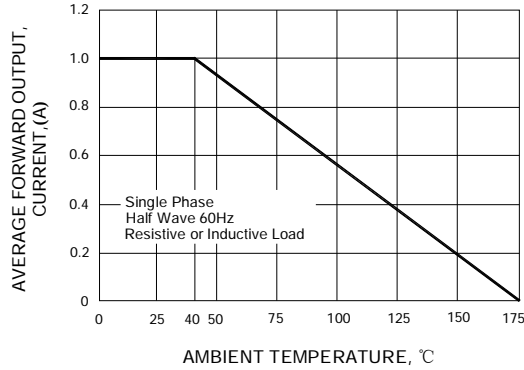


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

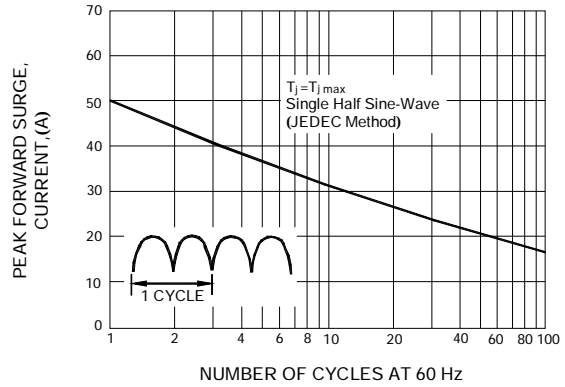


FIG. 3- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

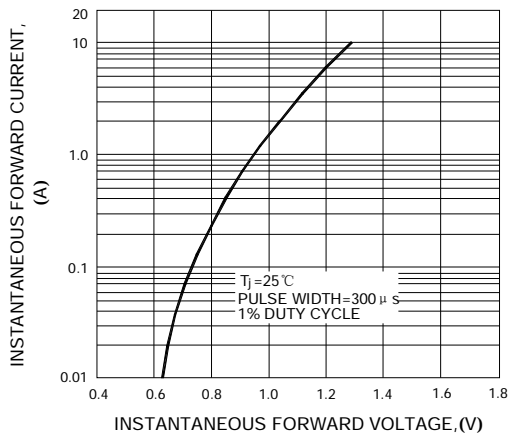


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

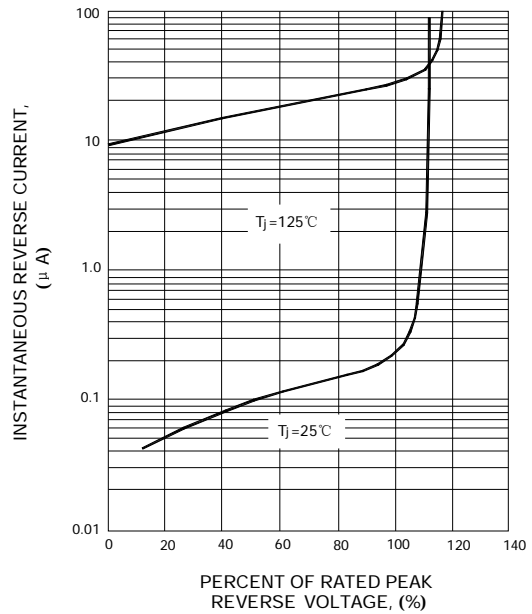


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

