

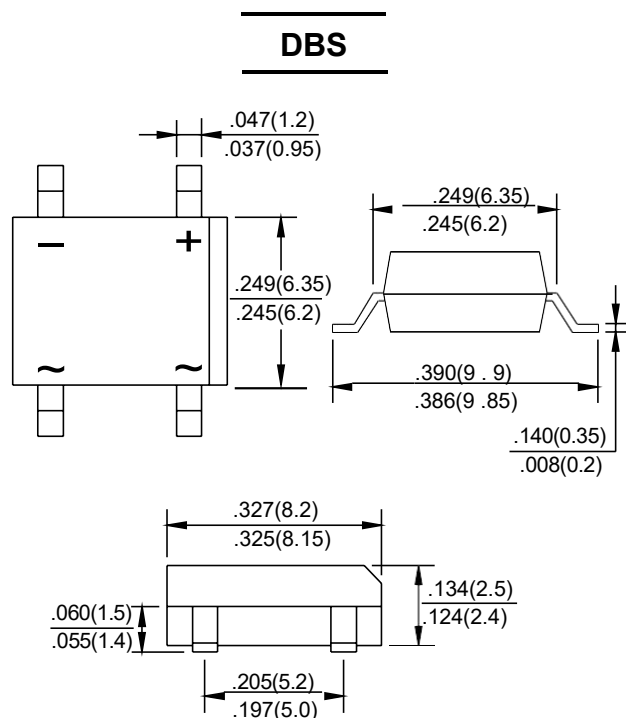
REVERSE VOLTAGE - 50 to 1000Volts FORWARD CURRENT - 1.0 Amperes

## FEATURES

- 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 UL flammability classification 94V-0

## MECHANICAL DATA

- Polarity: As marked on Body
- Weight: 0.02 ounces, 0.38 grams
- Mounting position: Any



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| CHARACTERISTICS                                                                                               | SYMBOL          | DF005S      | DF01S | DF02S | DF04S | DF06S | DF08S | DF10S | UNIT                      |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|-------|-------|-------|-------|-------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                        | $V_{RRM}$       | 100         | 200   | 400   | 500   | 600   | 800   | 1000  | V                         |
| Maximum RMS Voltage                                                                                           | $V_{RMS}$       | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                         |
| Maximum DC Blocking Voltage                                                                                   | $V_{DC}$        | 100         | 200   | 400   | 500   | 600   | 800   | 1000  | V                         |
| Maximum Average Forward Rectified Current @ $T_A=40^\circ\text{C}$                                            | $I_{(AV)}$      | 1.0         |       |       |       |       |       |       | A                         |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC .Method)      | $I_{FSM}$       | 50          |       |       |       |       |       |       | A                         |
| Maximum Forward Voltage at 1 .0A DC                                                                           | $V_F$           | 1.0         |       |       |       |       |       |       | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$ | $I_R$           | 10<br>500   |       |       |       |       |       |       | $\mu\text{A}$             |
| $I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )                                                                 | $I^2t$          | 10.4        |       |       |       |       |       |       | $\text{A}^2\text{s}$      |
| Typical Junction capacitance Per Element(Note1)                                                               | $C_J$           | 25          |       |       |       |       |       |       | pF                        |
| Typical Thermal Resistance (Note2)                                                                            | $R_{\theta JA}$ | 40          |       |       |       |       |       |       | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range                                                                                   | $T_J$           | -55 to +150 |       |       |       |       |       |       | $^\circ\text{C}$          |
| Storage Temperature Range                                                                                     | $T_{STG}$       | -55 to +150 |       |       |       |       |       |       | $^\circ\text{C}$          |

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.

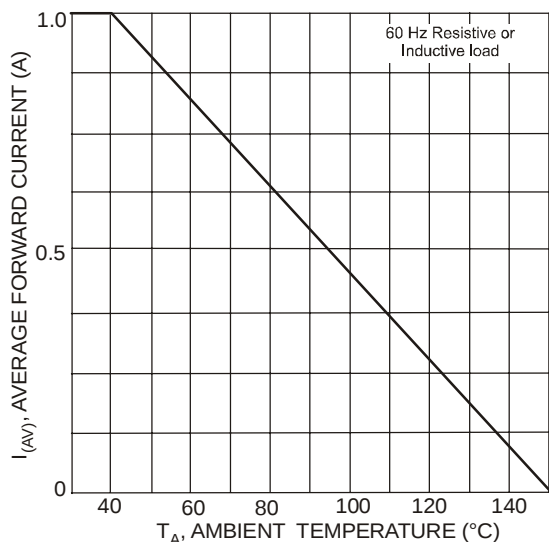


Fig. 1 Output Current Derating Curve

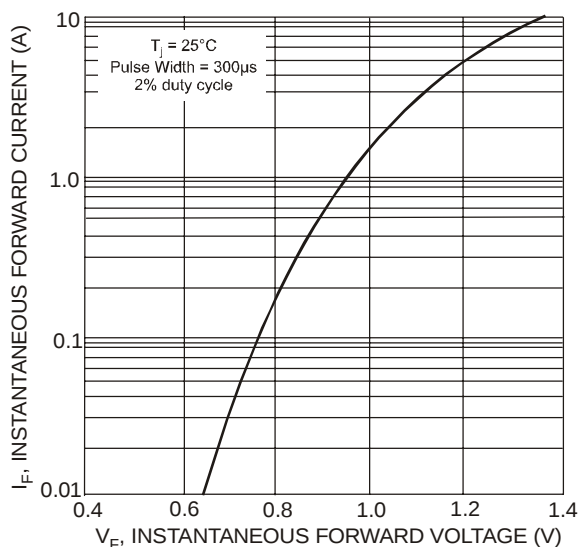


Fig. 2 Typical Forward Characteristics (per element)

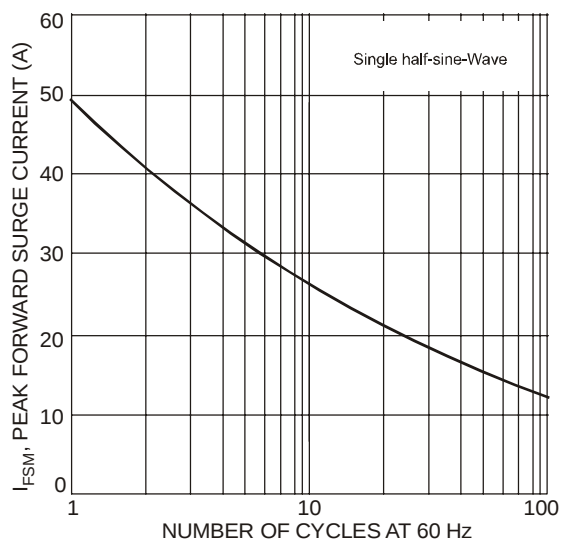


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

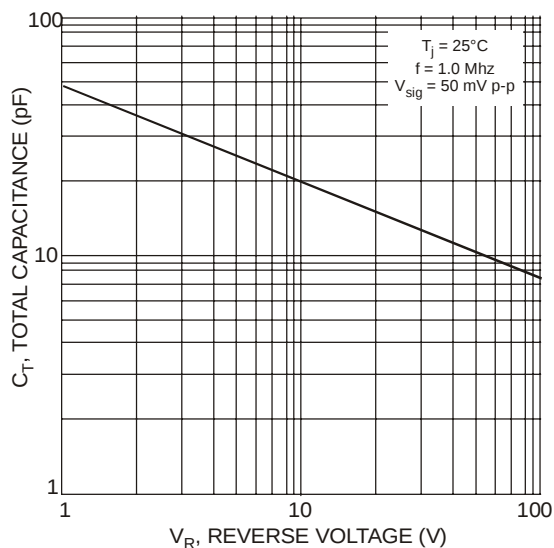


Fig. 4 Typical Total Capacitance (per element)

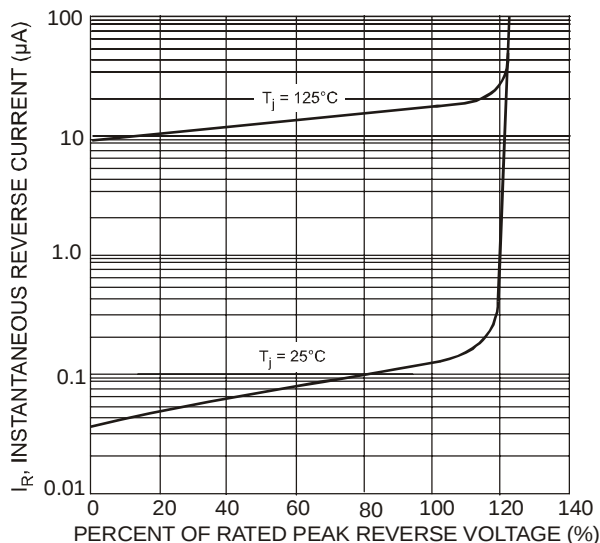


Fig. 5 Typ Reverse Characteristics (per element)