

DB301S THRU DB307S

SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

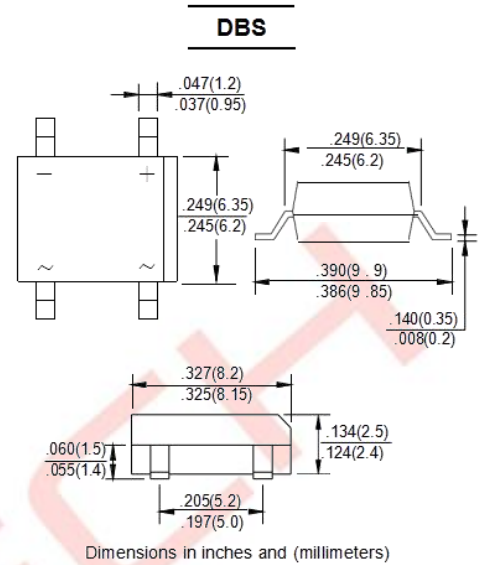
Reverse Voltage : 50 to 1000 V Rectified Output Current: 3A

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



Maximum Ratings and 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 %.

| Parameter | Symbols | DB301S | DB302S | DB303S | DB304S | DB305S | DB306S | DB307S | Units |
|--|-----------------|------------|--------|--------|--------|--------|--------|--------|---------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Average Rectified Output Current at $T_A = 40\text{ }^\circ\text{C}$ | $I_{(AV)}$ | 3 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 60 | | | | | | | A |
| Forward Voltage per element at $I_F = 3A$ | V_F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_a = 25\text{ }^\circ\text{C}$ @ $T_a = 125\text{ }^\circ\text{C}$ | I_R | 5.0 200 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | C_j | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note2) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on 15mm*12mm*1.6mm AL pad attach 195mm*110mm*10mm steel plate.

3. The typical data above is for reference only.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

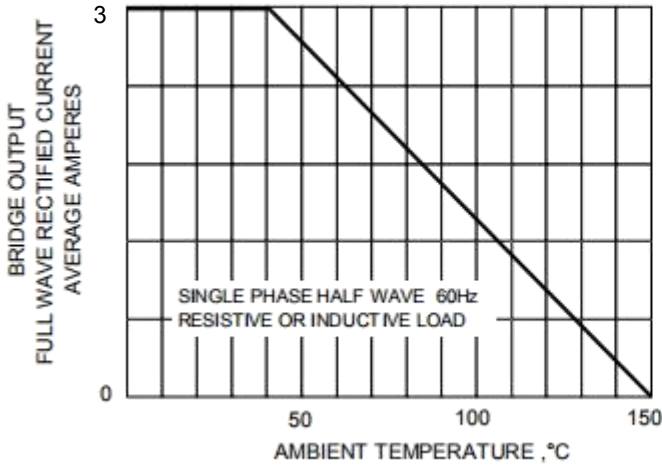


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

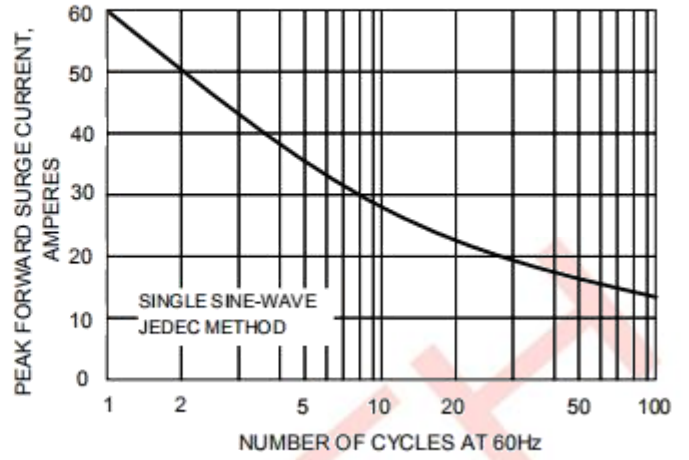


FIG.3-TYPICAL JUNCTION CAPACITANCE

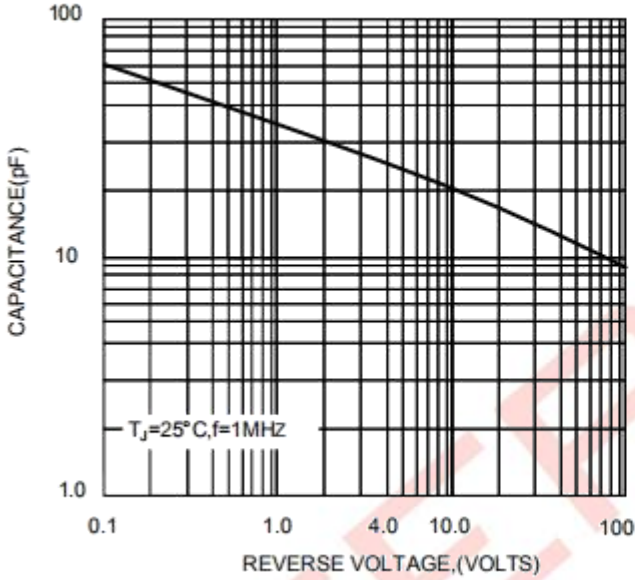


FIG.4-TYPICAL FORWARD CHARACTERISTICS

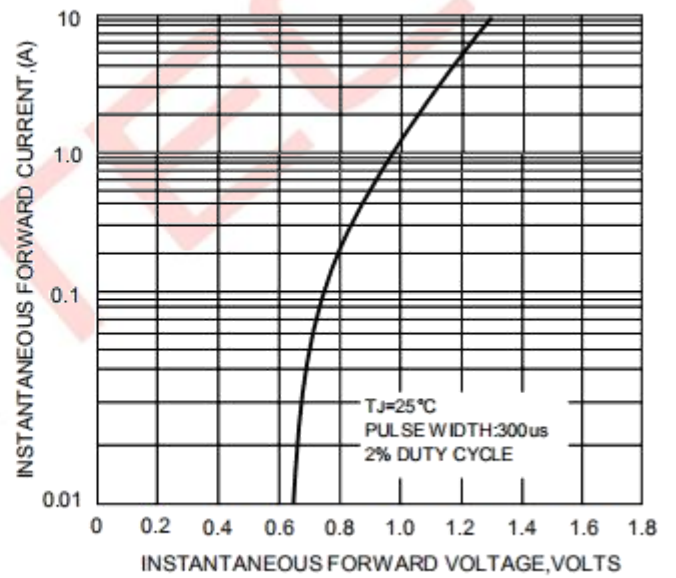


FIG.5-TYPICAL REVERSE CHARACTERISTICS

