

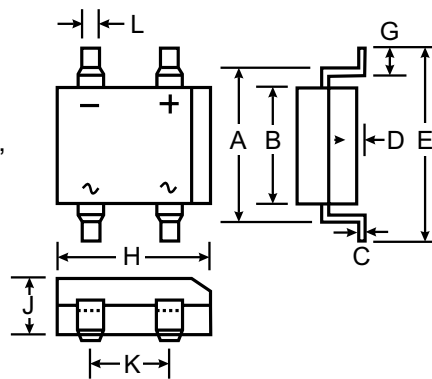
1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Surface Mount Application
- Plastic Material - UL Flammability Classification 94V-0
- UL Listed Under Recognized Component Index, File Number E94661

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: As marked on Case
- Approx. Weight: 0.38 grams
- Mounting Position: Any
- Marking: Type Number



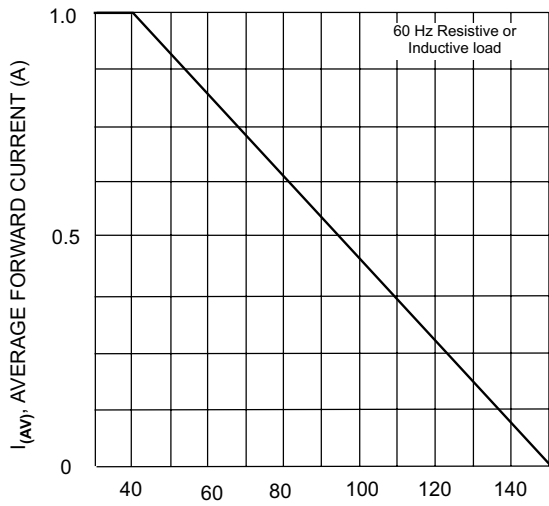
| DF-S | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 7.40 | 7.90 |
| B | 6.20 | 6.50 |
| C | 0.22 | 0.30 |
| D | 0.076 | 0.33 |
| E | — | 10.40 |
| G | 1.02 | 1.53 |
| H | 8.13 | 8.51 |
| J | 2.40 | 2.60 |
| K | 5.00 | 5.20 |
| L | 1.00 | 1.20 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

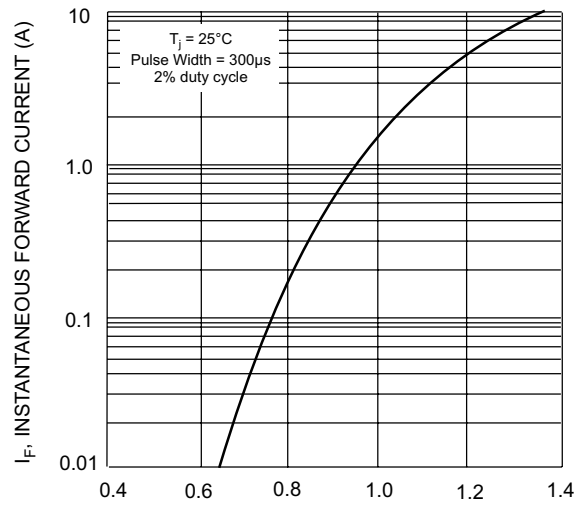
Single phase, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | DF 005S | DF 01S | DF 02S | DF 04S | DF 06S | DF 08S | DF 10S | Unit |
|---|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Peak Repetitive Reverse Voltage | V _{RMM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Forward Rectified Current @ T _A = 40°C | I _O | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 50 | | | | | | | A |
| Forward Voltage (per element) @ I _F = 1.0A | V _{FM} | 1.1 | | | | | | | V |
| Peak Reverse Current at Rated DC Blocking Voltage (per element) @ T _A = 25°C @ T _A = 125°C | I _{RM} | 10 500 | | | | | | | μA |
| I ² t Rating for Fusing (t<8.3ms) | I ² t | 10.4 | | | | | | | A ² s |
| Typical Junction Capacitance (per element) (Note 1) | C _j | 25 | | | | | | | pF |
| Typical Thermal Resistance, Junction to Ambient (Note 2) | R _{θJA} | 40 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | | °C |

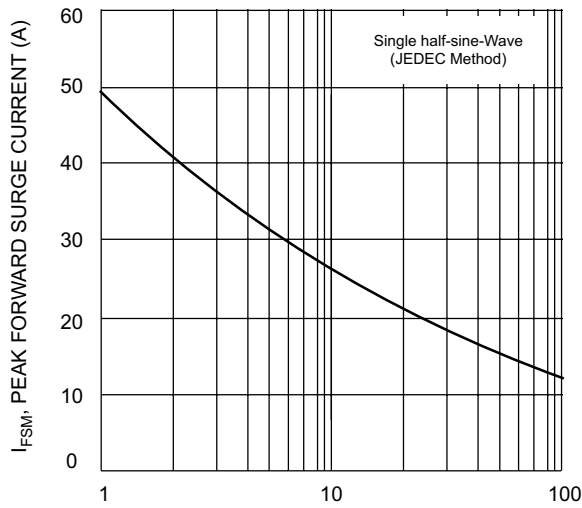
- Notes: 1. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal resistance, junction to ambient, measured on PC board with 5.0mm² (0.03mm thick) land areas.



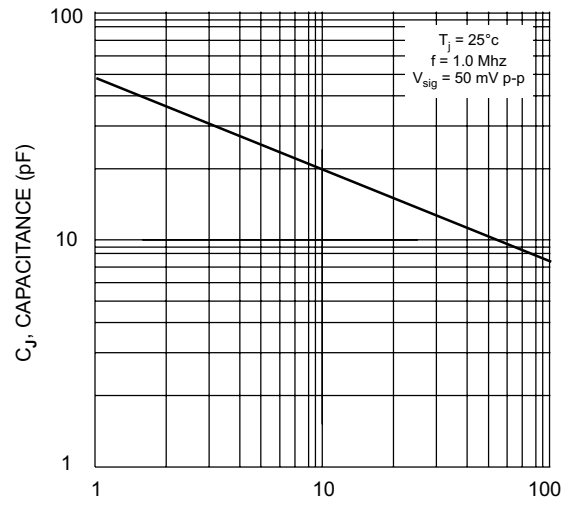
T_A , AMBIENT TEMPERATURE ($^{\circ}\text{C}$)
Fig. 1 Output Current Derating Curve



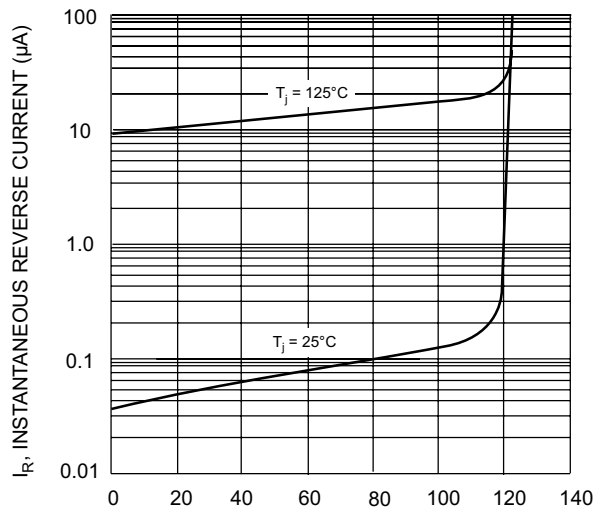
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typ Reverse Characteristics (per element)