

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

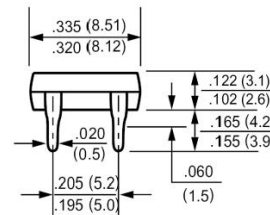
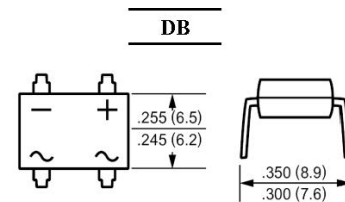
Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.0 Ampere

Features

- Glass passivated chip junction
- Low forward voltage drop
- High surge overload rating of 50 Amperes peak
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C for 10 seconds

Mechanical Data

Case: Molded plastic, DB
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202,
method 208 guaranteed
Mounting position: Any
Weight: 0.02ounce, 0.4gram



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and 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	DF005	DF01	DF02	DF04	DF06	DF08	DF10	Units
Maximum Recurrent 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
Maximum Average Forward Rectified Current at $T_A = 40^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum Forward Voltage at 1A DC	V_F	1.1							V
Maximum Reverse Voltage at Rated DC Blocking Voltage	I_R	at $T_A = 25^\circ\text{C}$							μA
		at $T_A = 125^\circ\text{C}$							
Typical Junction Capacitance ¹⁾	C_J	25							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Typical Thermal Resistance ²⁾	$R_{\theta JL}$	15							$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_S	-55 to +150							$^\circ\text{C}$

¹⁾ Measured at 1MHz and applied reverse voltage of 4VDC.

²⁾ Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output Rectified Current

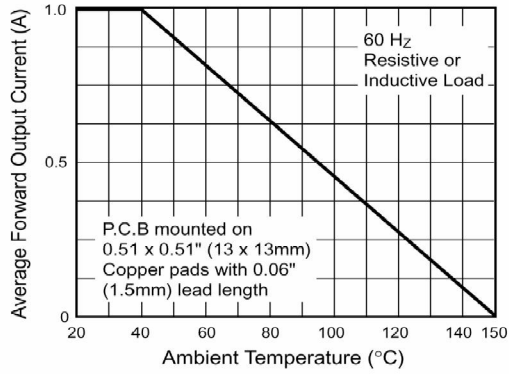


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

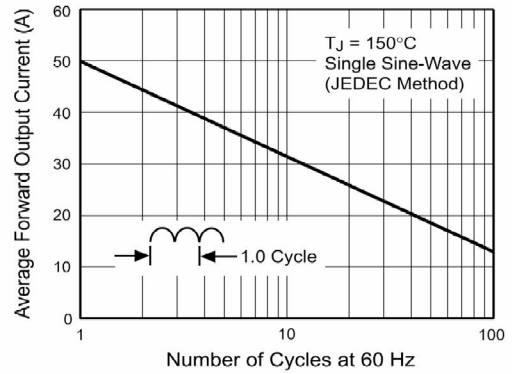


Fig. 3 - Typical Forward Characteristics Per Leg

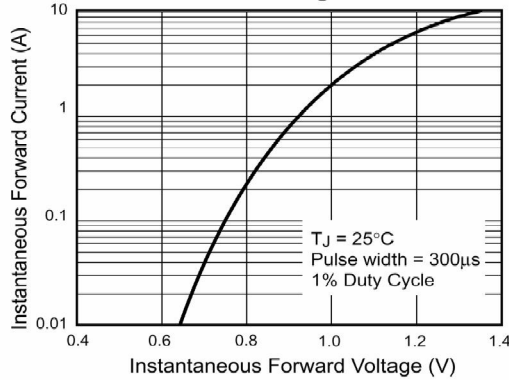


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

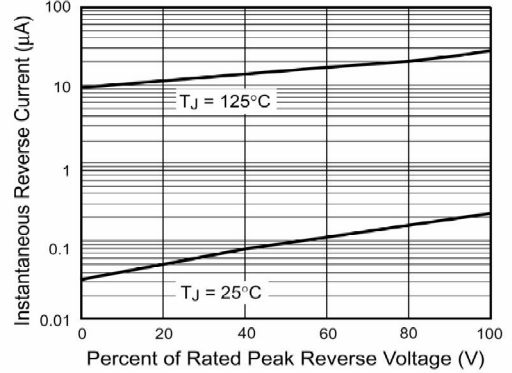


Fig. 5 - Typical Junction Capacitance Per Leg

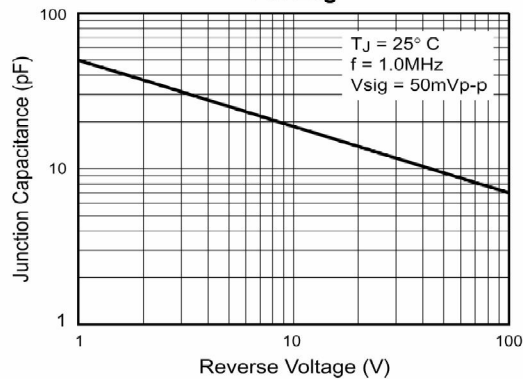


Fig. 6 - Typical Transient Thermal Impedance

