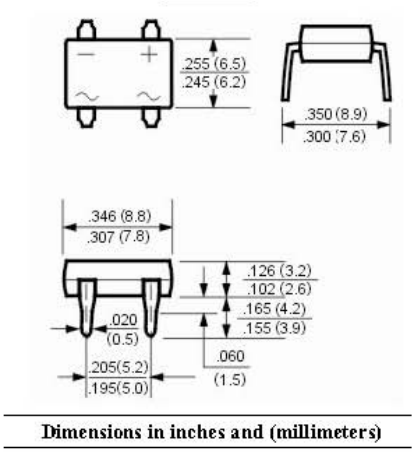
DB101 THRU DB107

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 V
Forward Current - 1 A

Features

- Glass passivated chip junction
- Low forward voltage drop
- High surge overload rating of 50 A peak
- Ideal for printed circuit board



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic, DB
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any

Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter		Symbols	DB101	DB102	DB103	DB104	DB105	DB106	DB107	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 °C		$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half-sine-wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	50							A
Maximum Forward Voltage at 1 A		V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	at T_A = 25 °C	I_R	5							µA
	at T_A = 125 °C		500							
Typical Junction Capacitance [1]		C_J	25							pF
Typical Thermal Resistance [2]		$R_{\theta JA}$	40							°C/W
Typical Thermal Resistance [2]		$R_{\theta JL}$	15							°C/W
Operating and Storage Temperature Range		T_j, T_{stg}	-55 to +150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V

[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 13 mm) copper pads.

Fig. 1 - Derating Curve Output Rectified Current

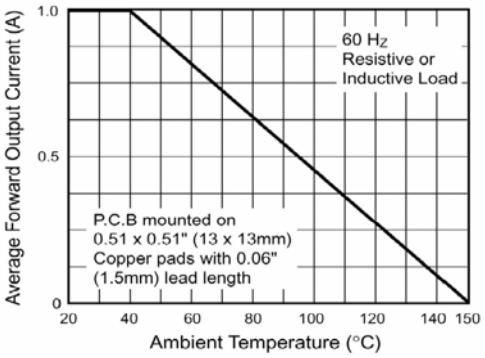


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

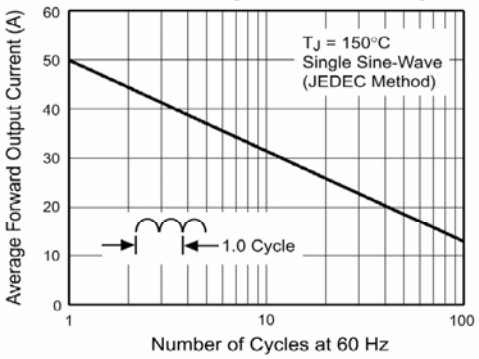


Fig. 3 - Typical Forward Characteristics Per Leg

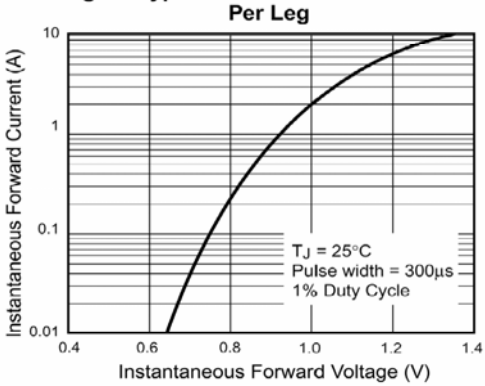


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

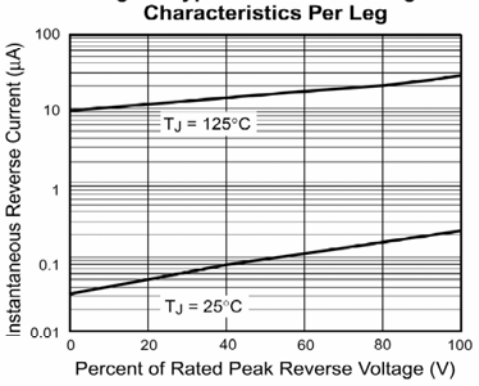


Fig. 5 - Typical Junction Capacitance Per Leg

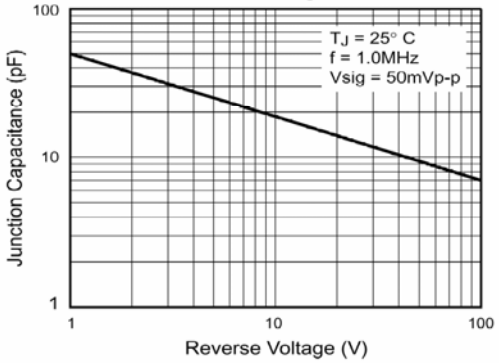


Fig. 6 - Typical Transient Thermal Impedance