DB151 THRU DB157

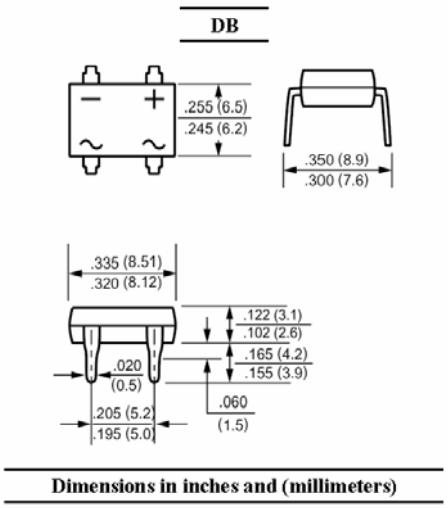
SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER
Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.5 Ampere

Features

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

Mechanical data

- Case Molded plastic, DB
- Mounting position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical 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%.

Parameter		Symbols	DB151	DB152	DB153	DB154	DB155	DB156	DB157	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 [2]		$I_{(AV)}$	1.5							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 1.5A DC and 25 °C		V_F	1.1							V
Maximum reverse current at rated DC blocking voltage	@T_A = 25 °C	I_R	5							μA
	@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 VDC.

[2] Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output Rectified Current

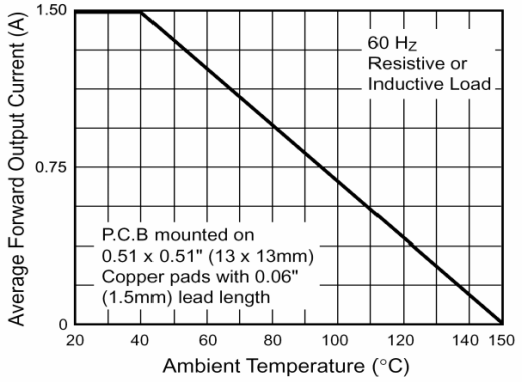


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

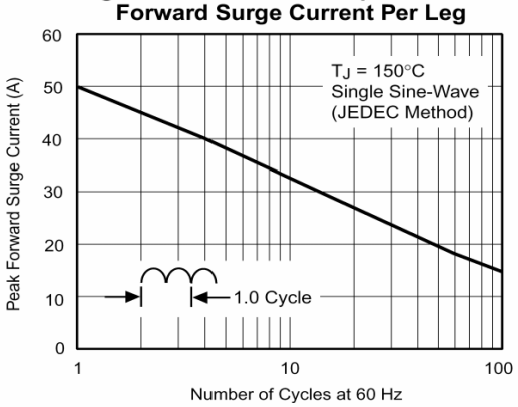


Fig. 3 - Typical Forward Characteristics Per Leg

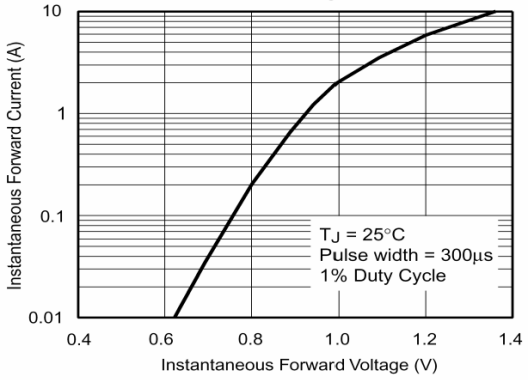


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

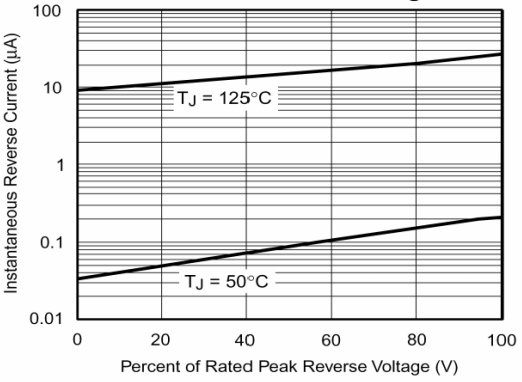


Fig. 5 - Typical Junction Capacitance Per Leg

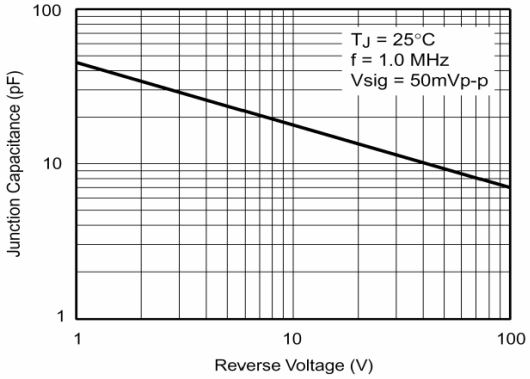


Fig. 6 - Typical Transient Thermal Impedance