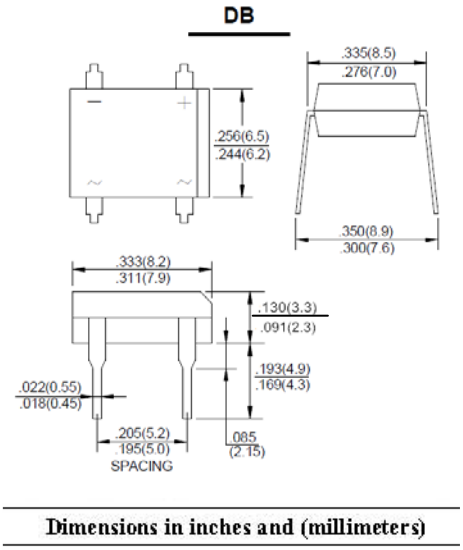
DB151 THRU DB157

Single-Phase Glass Passivated Silicon Bridge Rectifier

Reverse Voltage - 50 to 1000 V
Forward Current - 1.5 A



Dimensions in inches and (millimeters)

Features

- Ideal for printed circuit board
- Low forward voltage drop
- Glass passivated chip junction

Mechanical data

- Case Molded plastic, DB
- Mounting position: Any

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
	Marking	DB151	DB152	DB153	DB154	DB155	DB156	DB157	-
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 I_F = 1.5 A DC	V_F	1.1							V
Maximum Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 125 °C	I_R	5 500							μA
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 DC.

[2] Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x13 mm) copper pads.

Fig. 1 - Derating Curve Output Rectified Current

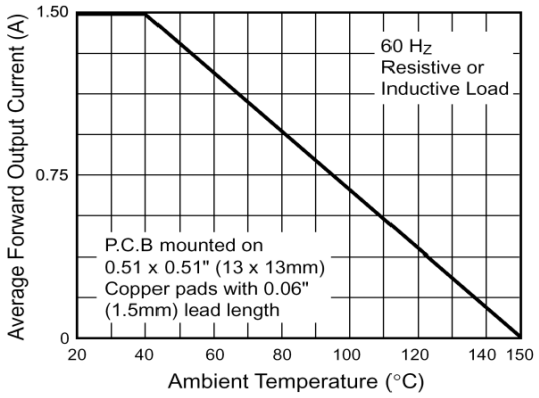


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

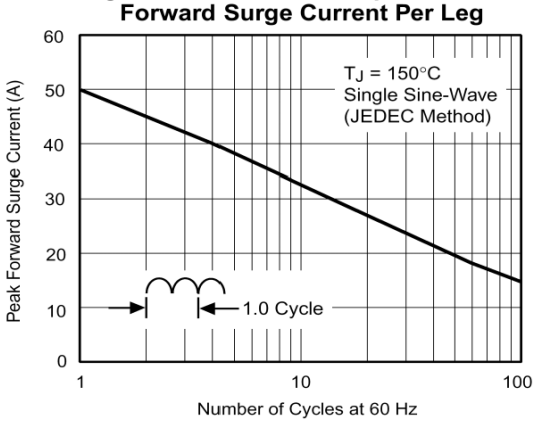


Fig. 3 - Typical Forward Characteristics Per Leg

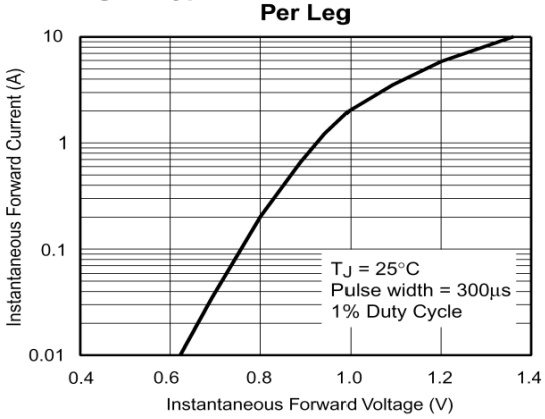


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

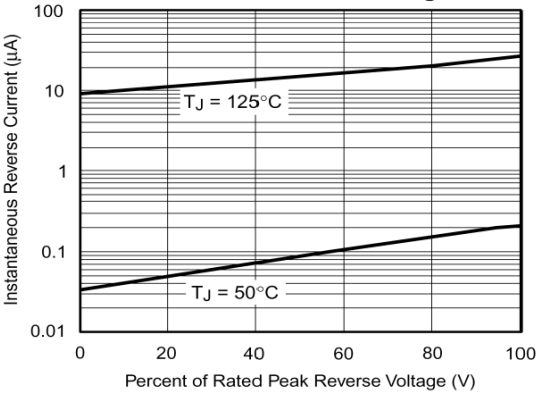


Fig. 5 - Typical Junction Capacitance Per Leg

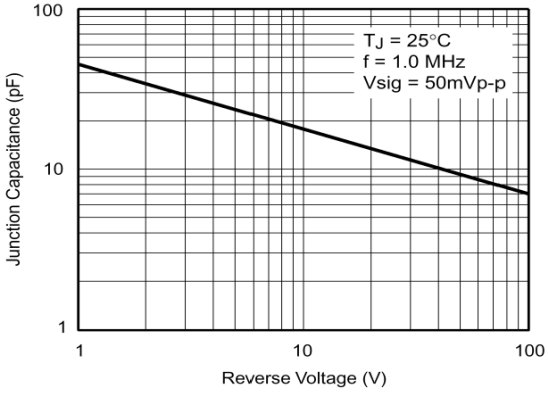


Fig. 6 - Typical Transient Thermal Impedance