

DB151 THRU DB157

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 1.5 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

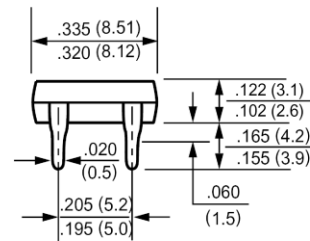
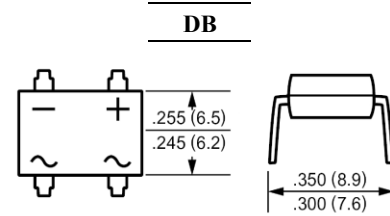
Case: Molded plastic, DB

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)

Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A=40$ (Note 2)	$I_{(AV)}$	1.5							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amp
Maximum Forward Voltage at 1.5A DC and 25	V_F	1.1							Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=125$	I_R	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	C_J	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	15							/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150							

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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

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RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output Rectified Current

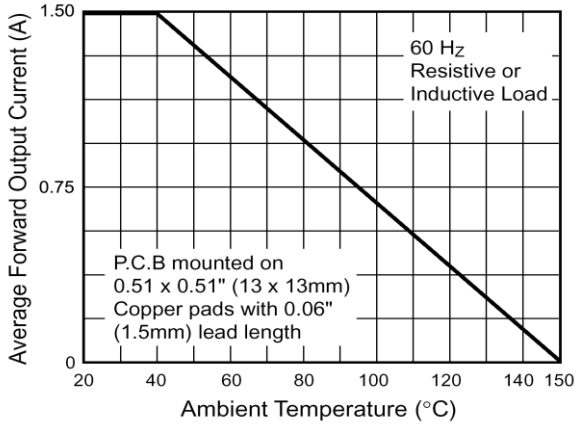


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

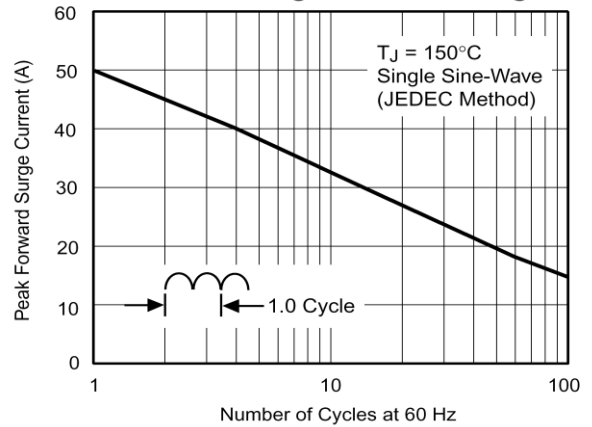


Fig. 3 - Typical Forward Characteristics Per Leg

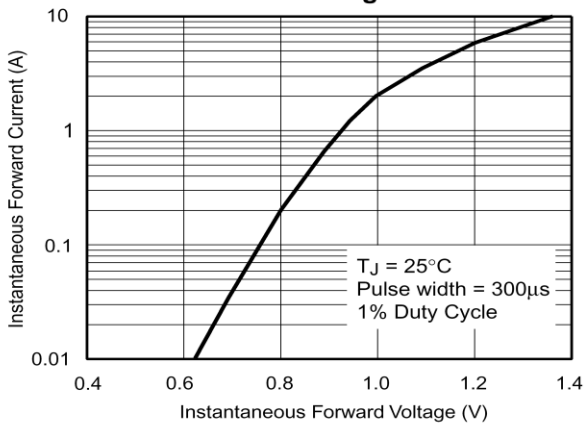


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

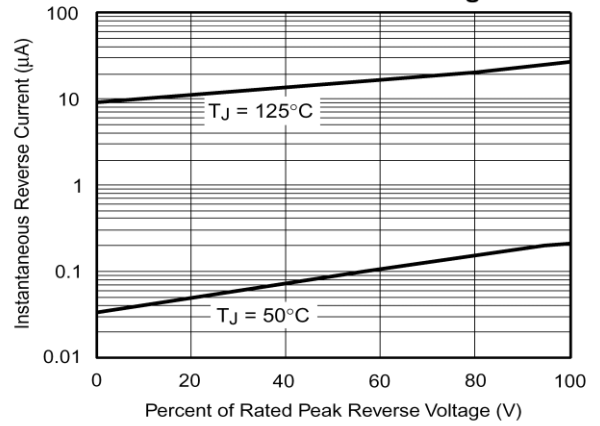


Fig. 5 - Typical Junction Capacitance Per Leg

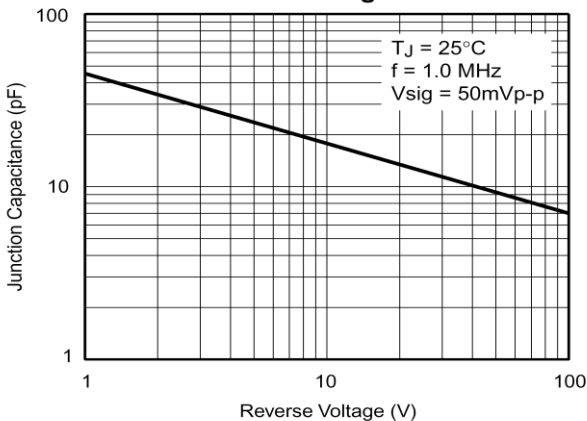


Fig. 6 - Typical Transient Thermal Impedance

