

***DB15X SERIES***

**SINGLE-PHASE SILICON BRIDGE RECTIFIER**

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# DB151 THRU DB157

**SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER**



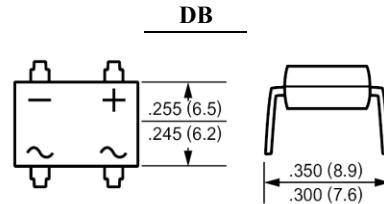
康比電子  
HORNBY ELECTRONIC

**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

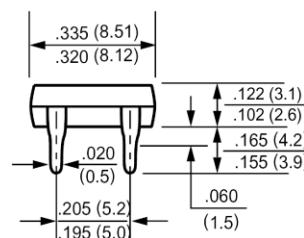
Case: Molded plastic, DB

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 <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =40° (Note 2)	I <sub>(AV)</sub>						1.5		Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>						50		Amp
Maximum Forward Voltage at 1.5A DC and 25°	V <sub>F</sub>					1.1			Volts
Maximum Reverse Current at T <sub>A</sub> =25° at Rated DC Blocking Voltage T <sub>A</sub> =125°	I <sub>R</sub>					5.0	500		uAmp
Typical Junction Capacitance (Note 1)	C <sub>J</sub>					25			pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>					40			/W
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>					15			/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>Stg</sub>					-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

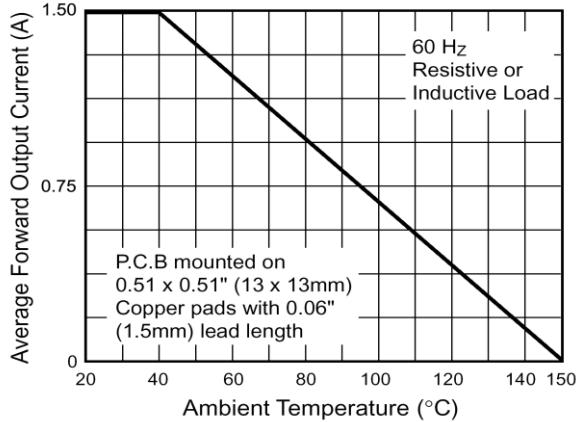


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

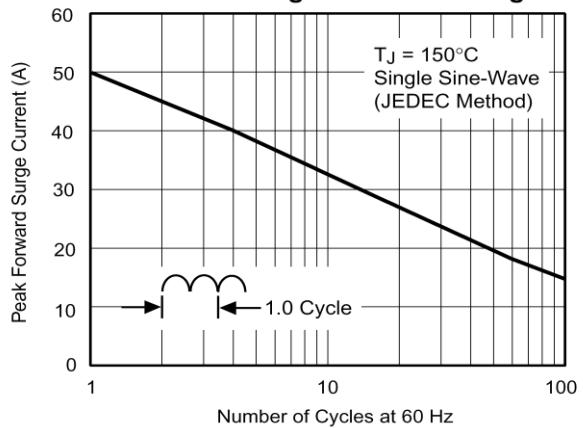


Fig. 3 - Typical Forward Characteristics Per Leg

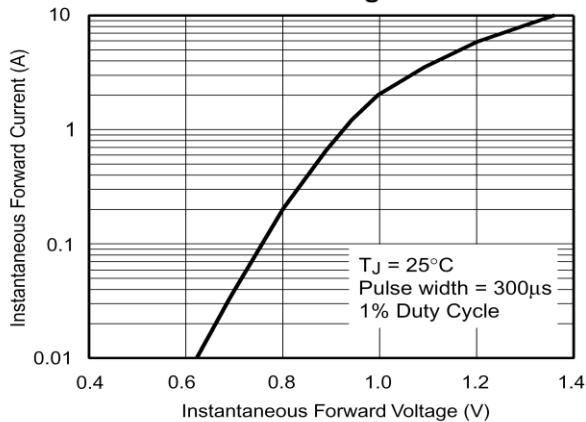


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

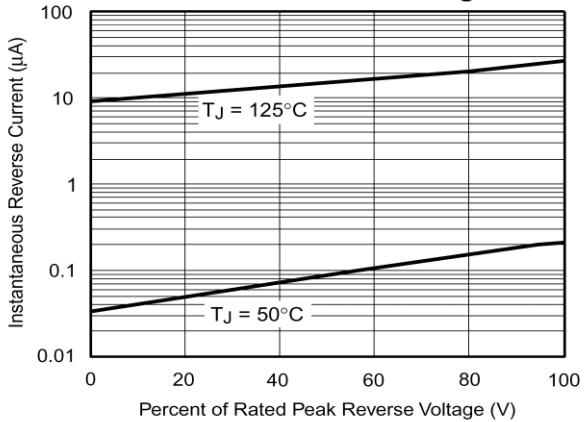


Fig. 5 - Typical Junction Capacitance Per Leg

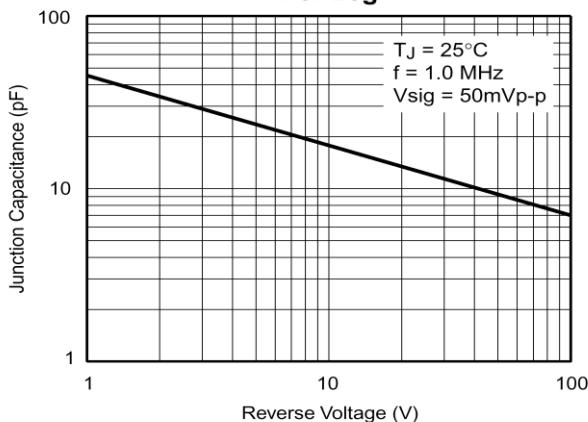


Fig. 6 - Typical Transient Thermal Impedance

