

## DB100/150 THRU DB1010/1510

**DUAL-IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**  
**VOLTAGE - 50 to 1000 Volts      CURRENT - 1.0-1.5 Ampere**

**Recognized**

### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-O
- Low leakage.
- Surge overload rating—30-50 amperes peak.
- Ideal for printed circuit board.
- Exceeds environmental standards of MIL-S-19500/228

### MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product.

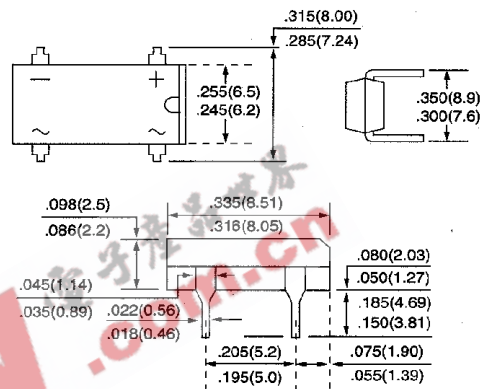
Terminals: Lead solderable per MIL-STD-202, Method 208.

Polarity: Polarity symbols molded or marking on body.

Mounting position: Any.

Weight: 0.02 ounce, 0.4 gram.

DIP



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL 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%.

	DB100 DB150	DB101 DB151	DB102 DB152	DB104 DB154	DB106 DB156	DB108 DB158	DB1010 DB1510	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current T <sub>A</sub> = 40°C	DI100 DI150			1.0 1.5				A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load	DI100 DI150			30.0 50.0				A
I <sup>2</sup> t Rating for fusing (t < 8.35 ms)				10.0				A <sup>2</sup> t
Maximum Forward Voltage Drop per Bridge Element at 1.0 A				1.1				V
Maximum Reverse Current at Rated DC Blocking Voltage per element				5.0 0.5				μA mA
Typical junction capacitance per leg (NOTE 1) C <sub>J</sub>				25.0				pF
Typical thermal resistance per leg (NOTE 2) R <sub>θJA</sub> Typical thermal resistance per leg (NOTE 2) R <sub>θJL</sub>				40.0 15.0				°C/W
Operating Temperature Range T <sub>J</sub>				-55 to 125				°C
Storage Temperature Range T <sub>A</sub>				-55 to 150				°C

**NOTES:**

1. Measured at 1.0MHZ and applied reverse voltage of 4.0 volts.
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.

RATING AND CHARACTERISTIC CURVES  
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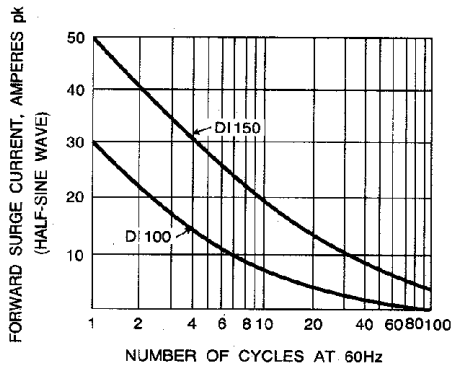


Fig. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

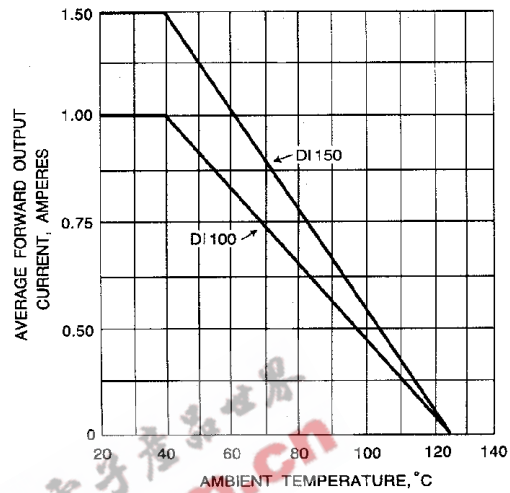


Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

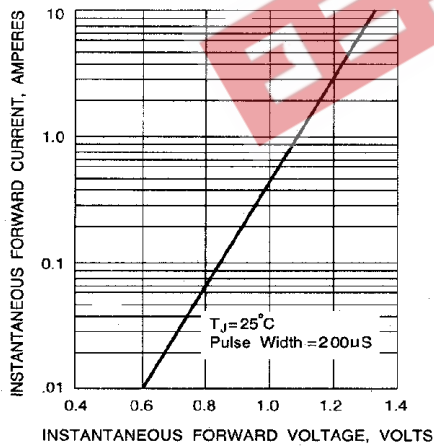


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

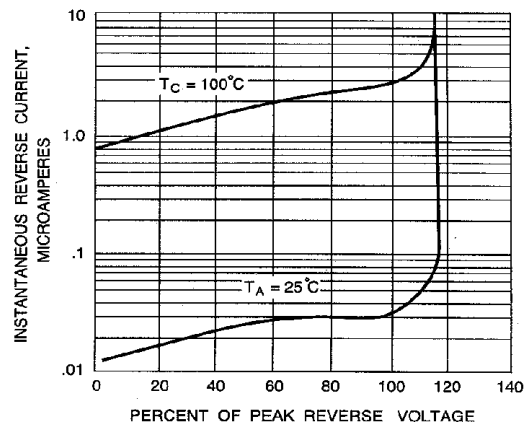


Fig. 4 - TYPICAL REVERSE CHARACTERISTICS