

DI100/150 THRU DI1010/1510

DUAL-IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 1.0~1.5 Amperes

 Recongnized File #E111753

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

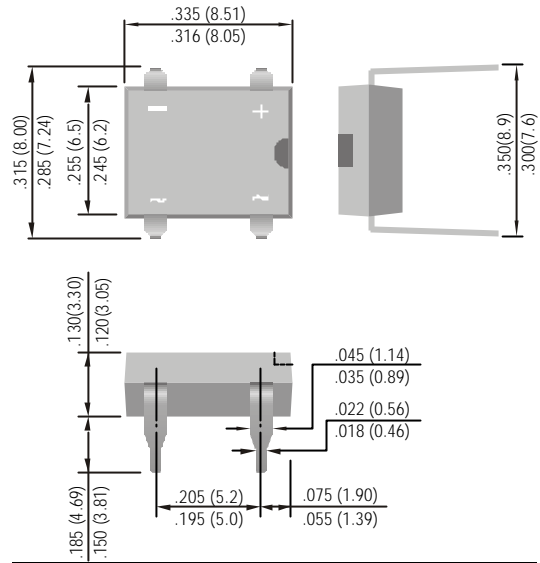
Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: Polarity symbols molded or marking on body

Mounting Position: Any

Weight: 0.02 ounce, 0.4 gram

DIP



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%.

	DI100 DI150	DI101 DI151	DI102 DI152	DI104 DI154	DI106 DI156	DI108 DI158	DI1010 DI1510	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 $T_A=40^{\circ}\text{C}$	DI100 DI150	1.0 1.5						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	DI100 DI150	30.0 50.0						A
I^2t Rating for fusing ($t < 8.35$ ms)	10.0							A^2t
Maximum Forward Voltage Drop per Bridge Element at 1.0A	1.1							V
Maximum Reverse Current at Rated $T_J=25^{\circ}\text{C}$	5.0							μA
DC Blocking Voltage per element $T_J=125^{\circ}\text{C}$	0.5							mA
Typical Junction capacitance per leg (Note 1) C_J	25.0							pF
Typical Thermal resistance per leg (Note 2) $R_{\theta JA}$	40.0							$^{\circ}\text{C}/\text{W}$
Typical Thermal resistance per leg (Note 2) $R_{\theta JL}$	15.0							
Operating Temperature Range T_J	-55 to +125							$^{\circ}\text{C}$
Storage Temperature Range T_A	-55 to +150							$^{\circ}\text{C}$

NOTES:

1. Measured at 1.0 MHz 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 0.5x0.5" (13 x 13mm) copper pads

RATING AND CHARACTERISTIC CURVES

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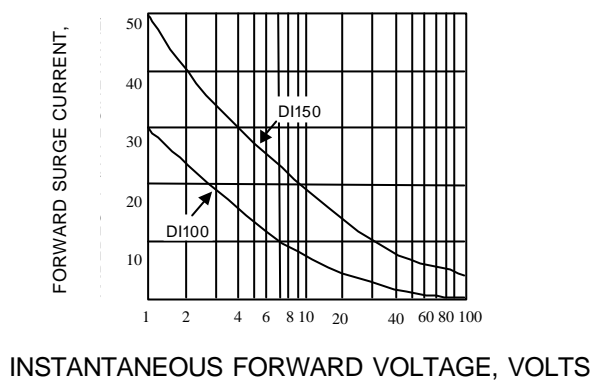


Fig. 1-MAXIMUM NON-REPETITIVE SURGE CURRENT

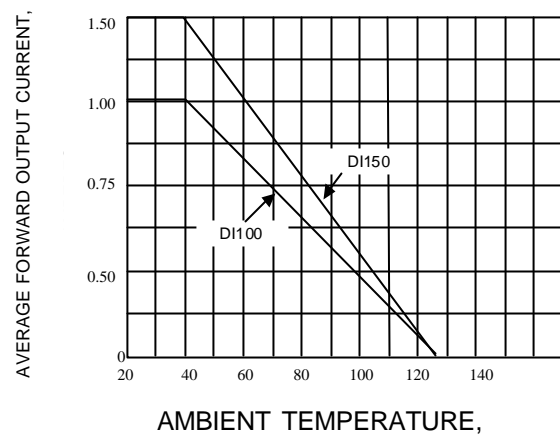


Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

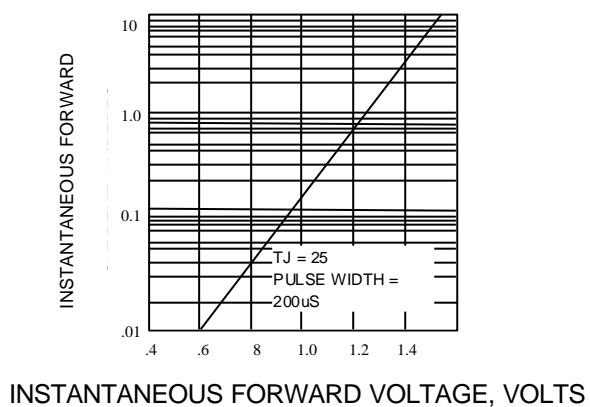


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

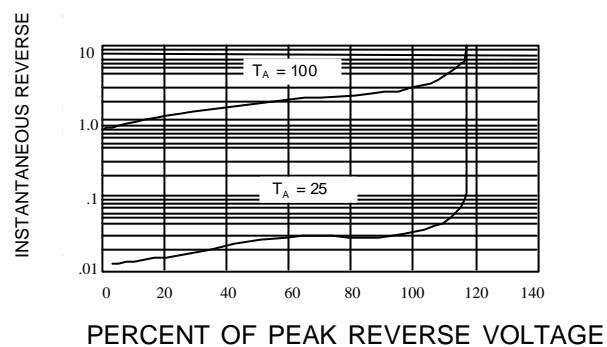


Fig. 4-TYPICAL REVERSE CHARACTERISTICS