

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

DIP

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

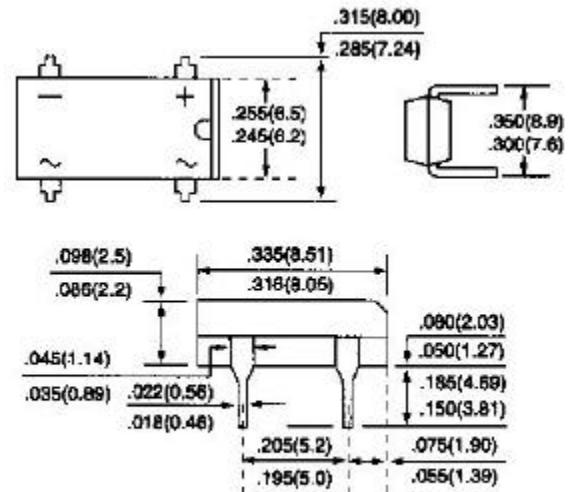
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

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



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%.

| | 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 $T_A=40$ | DI100 | 1.0 | | | | | | A |
| | DI150 | 1.5 | | | | | | |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load | DI100 | 30.0 | | | | | | A |
| | DI150 | 50.0 | | | | | | |
| 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 $T_J=25$ | | | | 5.0 | | | | A |
| DC Blocking Voltage per element $T_J=125$ | | | | 0.5 | | | | mA |
| Typical Junction capacitance per leg (Note 1) C_J | | | | 25.0 | | | | pF |
| Typical Thermal resistance per leg (Note 2) R_{JA} | | | | 40.0 | | | | /W |
| Typical Thermal resistance per leg (Note 2) R_{JL} | | | | 15.0 | | | | |
| Operating Temperature Range T_J | | | | -55 to +125 | | | | |
| Storage Temperature Range T_A | | | | -55 to +150 | | | | |

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 0.5×0.5"(13×13mm) copper pads

RATING AND CHARACTERISTIC CURVES

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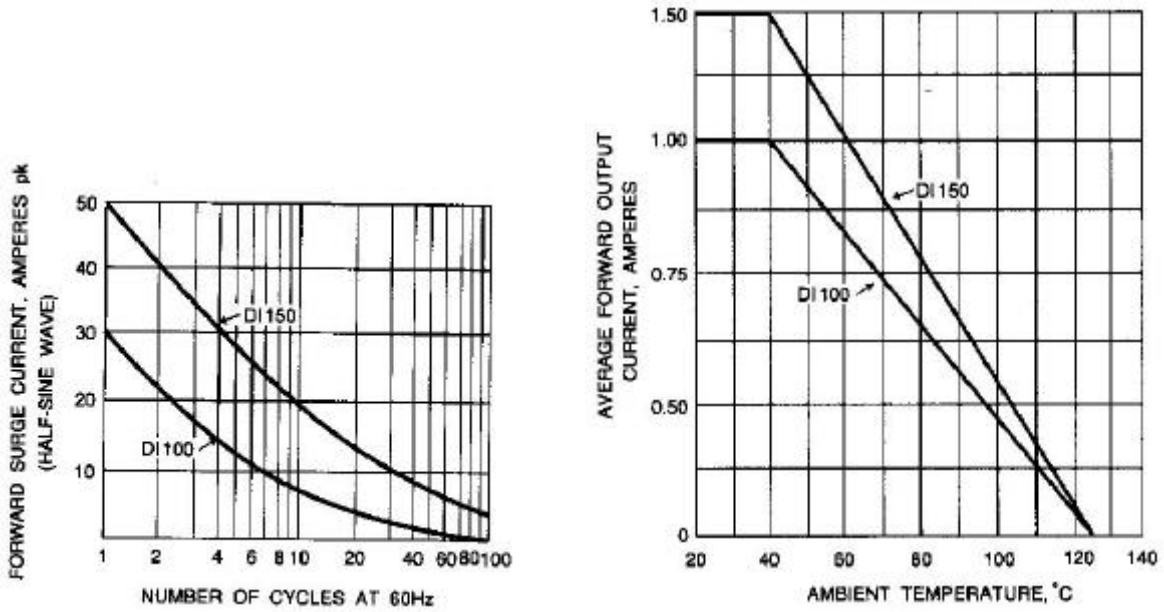


Fig. 1-MAXIMUM NON-REPETITIVE SURGE CURRENT Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

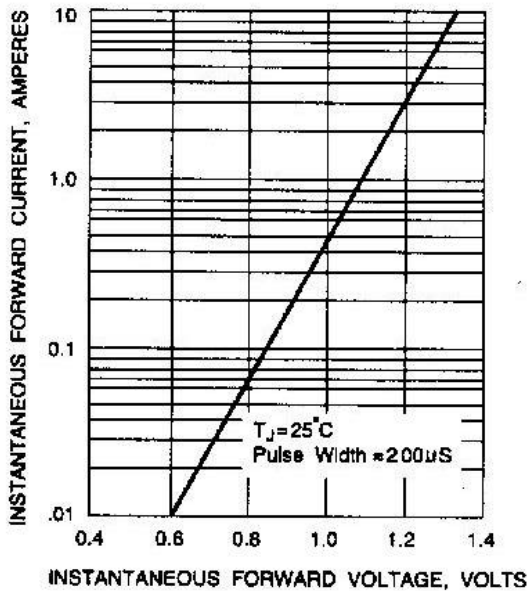


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

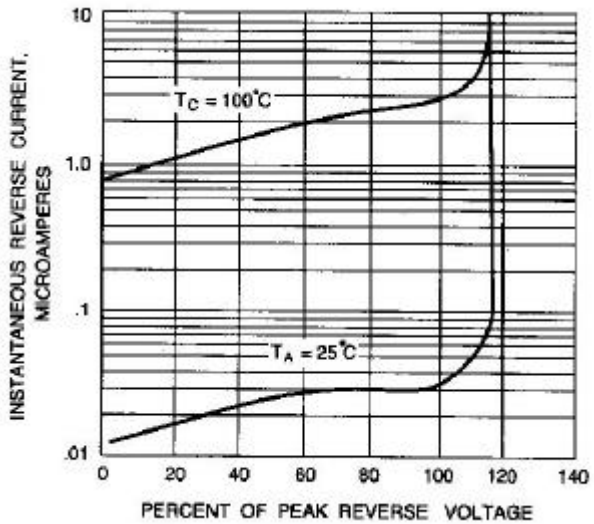


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

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