

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

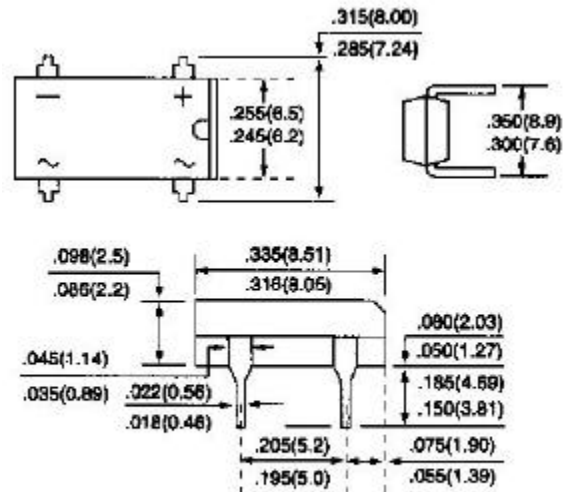
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

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 °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 $T_A=40$ | 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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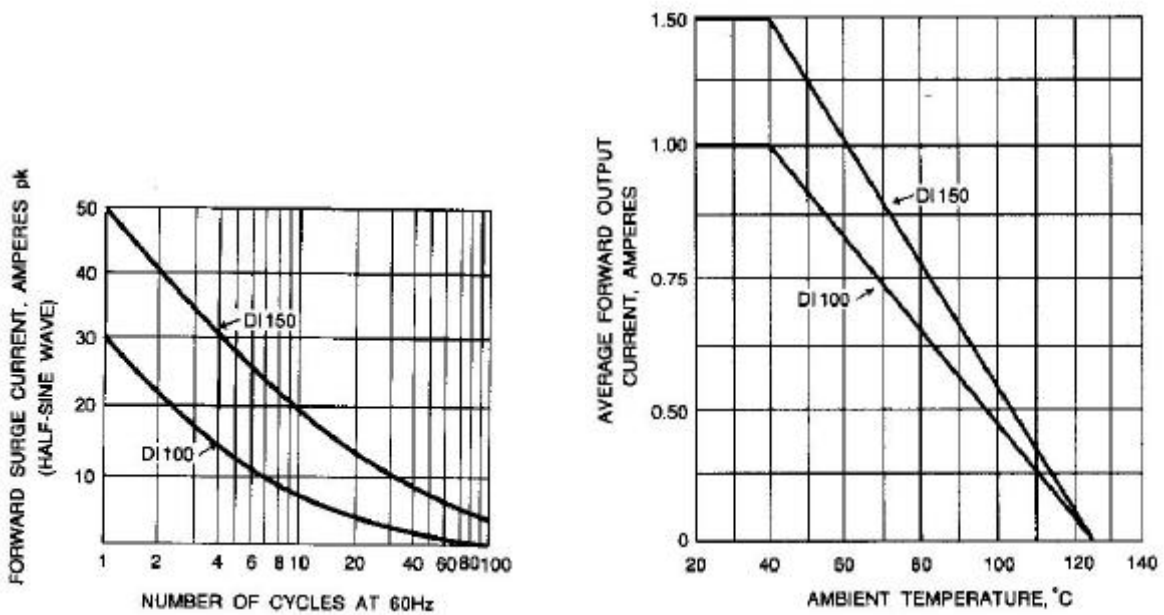


Fig. 1-MAXIMUM NON-REPETITIVE SURGE CURRENT Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

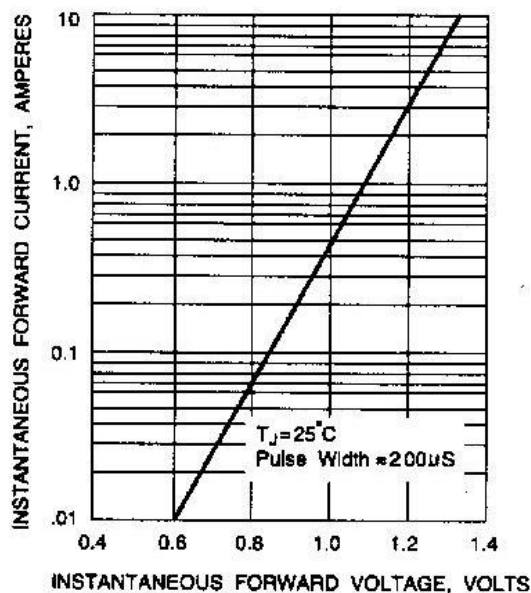


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

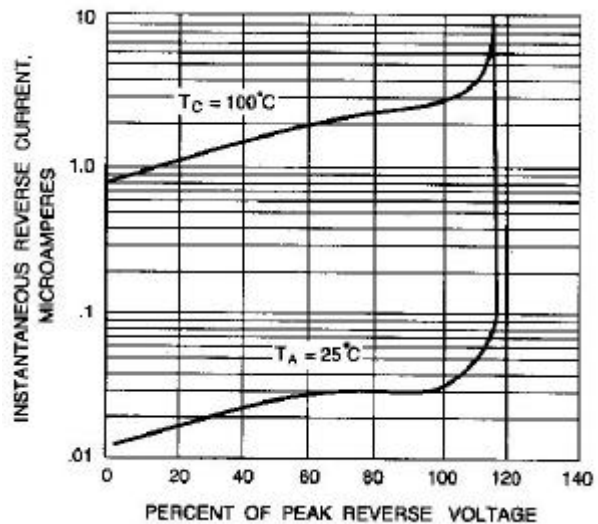


Fig. 4-TYPICAL REVERSE CHARACTERISTICS