



DATA SHEET

DI150~DI1510

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

VOLTAGE 50 to 1000 Volts **CURRENT** 1.5 Amperes



Recognized File #E111753

FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-O
- Low leakage
- Surge overload rating-- 50 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500/228
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

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

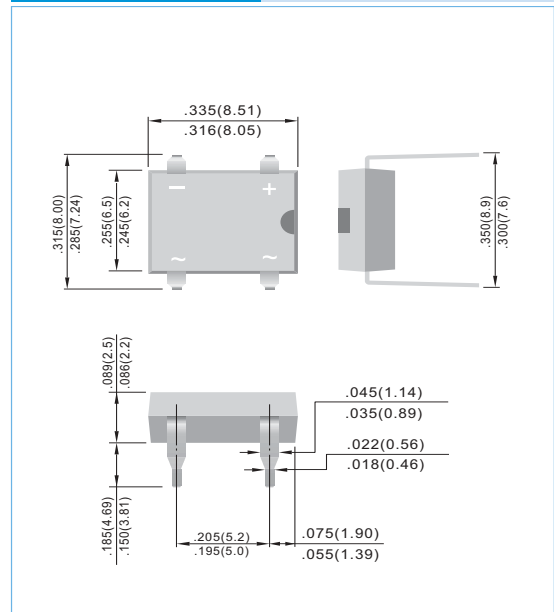
Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: Polarity symbols molded or marking on body

Mounting Position: Any

Weight: 0.02 ounce, 0.4 gram

DIP Unit : inch (mm)



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%

| PARAMETER | SYMBOL | DI150 | DI151 | DI152 | DI154 | DI156 | DI158 | DI1510 | UNITS | |
|--|--------------------------------------|--------------|-------|-------|-------|-------|-------|--------|-------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Bridge Input Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Current TA=40°C | I _{AV} | 1.5 | | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 50 | | | | | | | | A |
| I ² t Rating for fusing (t<8.35ms) | I ² t | 10 | | | | | | | | A ² t |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A | V _F | 1.1 | | | | | | | | V |
| Maximum DC Reverse Current TJ=25 °C at Rated DC Blocking Voltage TJ=125 °C | I _R | 5.0 500 | | | | | | | | uA |
| Typical Junction capacitance (Note 1) | C _J | 25 | | | | | | | | pF |
| Typical thermal resistance per leg ((Note 2) | R _{θJA} R _{θJL} | 40 15 | | | | | | | | °C / W |
| Operating and Storage Temperature Range | T _J | -55 to + 125 | | | | | | | | °C |
| Storage Temperature Range | T _A | -55 to + 150 | | | | | | | | °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 0.5 X 0.5"(13 X 13mm) copper pads



RATING AND CHARACTERISTIC CURVES

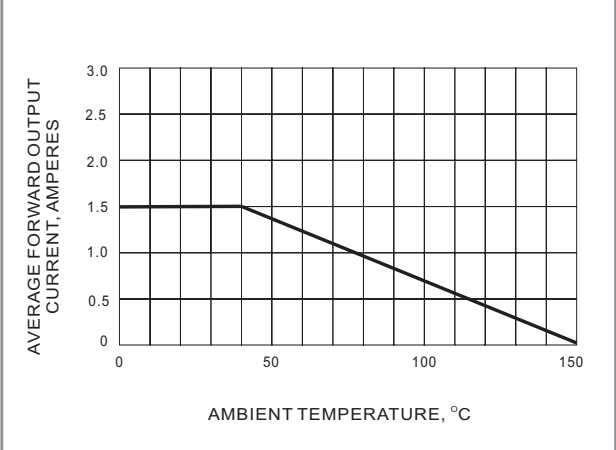


FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

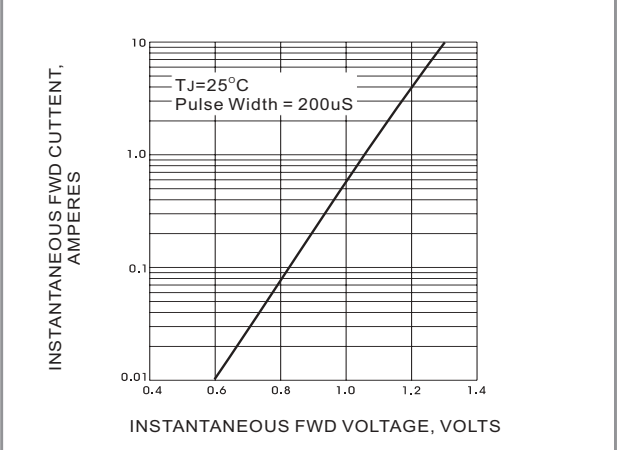


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

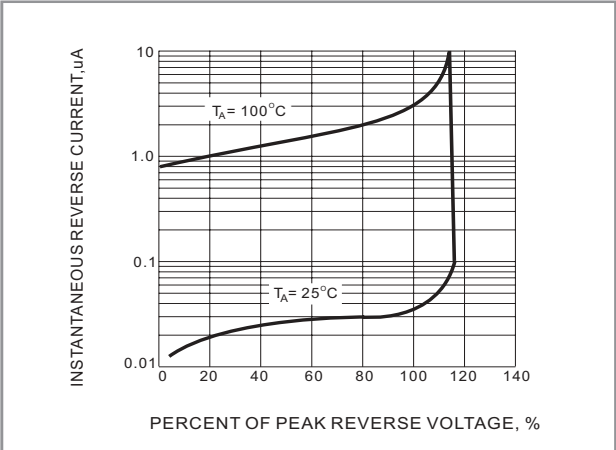


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

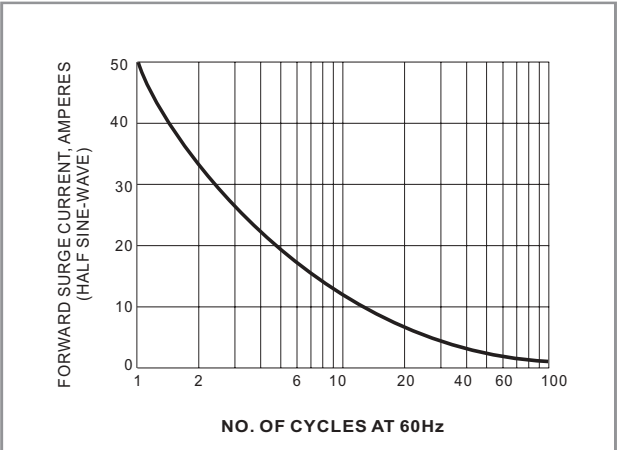


FIG. 4 MAX NON-REPETITIVE SURGE CURRENT