PANJIT SEMI CONDUCTOR

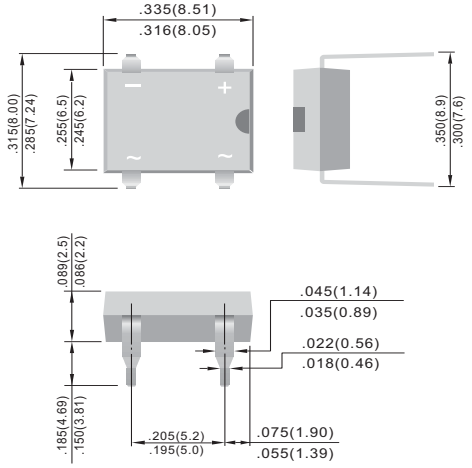
# DI150~DI1510

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

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

**Recongnized File #E111753**

DIP Unit : inch (mm)




### 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
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICALDATA

- Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols molded or marking on body
- Mounting Position: Any
- Weight: 0.02 ounce, 0.4 gram

### 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 $T_A$=40°C | $I_{F(AV)}$ | 1.5 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 50 | | | | | | | A |
| $I^2t$ Rating for fusing ( t<8.35ms) | $I^2t$ | 10 | | | | | | | $A^2t$ |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current $T_J$=25 °C<br>at Rated DC Blocking Voltage $T_J$=125 °C | $I_R$ | 5.0<br>500 | | | | | | | uA |
| Typical Junction capacitance (Note 1) | $C_J$ | 25 | | | | | | | pF |
| Typical thermal resistance per leg ((Note 2) | $R_{\theta JA}$<br>$R_{\theta JL}$ | 40<br>15 | | | | | | | °C / W |
| Operating and Storage Temperature Range | $T_J$ | -55 to + 125 | | | | | | | °C |
| Storage Temperature Range | $T_{STG}$ | -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

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## RATING AND CHARACTERISTIC CURVES

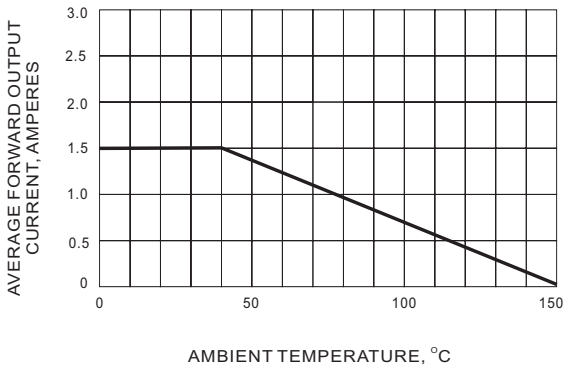


FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

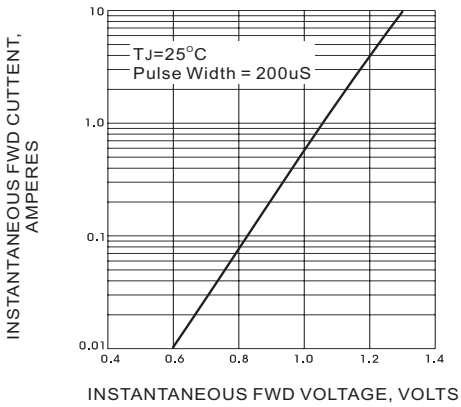


FIG.2 TYPICAL FORWARD CHARACTERISTICS

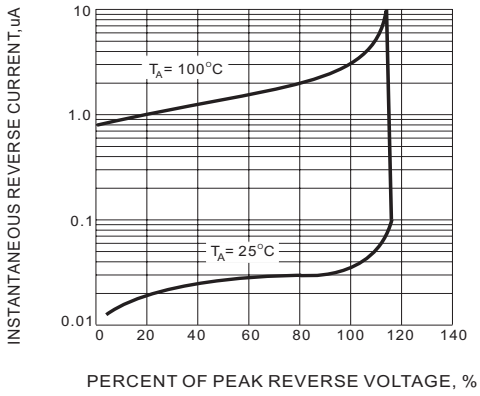


FIG.3 TYPICAL REVERSE CHARACTERISTICS

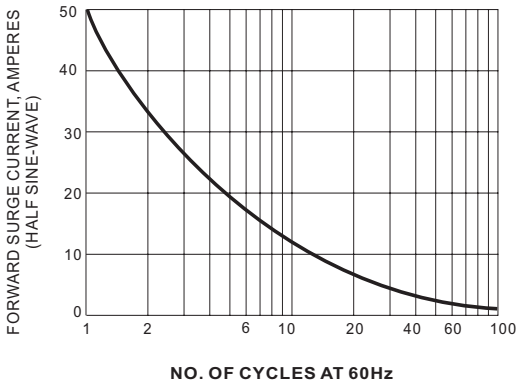


FIG.4 MAX NON-REPETITIVE SURGE CURRENT

# DI150~DI1510

**Part No_packing code_Version**

DI150_T0_00001

**For example :**

**RB500V-40_R2_00001**

- **Part No.**
- **Serial number**
- **Version code means HF**
- **Packing size code means 13"**
- **Packing type means T/R**

| Packing Code XX | | | | Version Code XXXXX | | |
|---|---|---|---|---|---|---|
| Packing type | 1st Code | Packing size code | 2nd Code | HF or RoHS | 1st Code | 2nd~5th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |

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