

# DI100~DI1010

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

**VOLTAGE** 50 to 1000 Volt **CURRENT** 1 Ampere

**DIP** Unit : inch(mm)



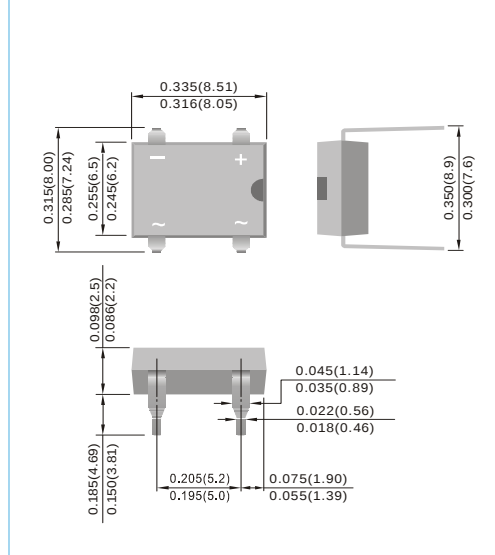
Recognized File #E111753

### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Surge overload rating-- 30 amperes peak
- Ideal for printed circuit board
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- 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
- Weight: 0.012 ounces, 0.33 grams



## 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                               | DI100        | DI101 | DI102 | DI104 | DI106 | DI108 | DI1010 | UNITS            |
|----------------------------------------------------------------------------------------------------------|--------------------------------------|--------------|-------|-------|-------|-------|-------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                   | V <sub>RRM</sub>                     | 50           | 100   | 200   | 400   | 600   | 800   | 1000   | V                |
| Maximum RMS Bridge Input Voltage                                                                         | V <sub>RMS</sub>                     | 35           | 70    | 140   | 280   | 420   | 560   | 700    | V                |
| Maximum DC Blocking Voltage                                                                              | V <sub>DC</sub>                      | 50           | 100   | 200   | 400   | 600   | 800   | 1000   | V                |
| Maximum Average Forward Current                                                                          | I <sub>AV</sub>                      | 1            |       |       |       |       |       |        | A                |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load                      | I <sub>FSM</sub>                     | 30           |       |       |       |       |       |        | A                |
| I <sup>2</sup> t Rating for fusing (t<8.35ms)                                                            | I <sup>2</sup> t                     | 3.735        |       |       |       |       |       |        | A <sup>2</sup> t |
| Maximum Forward Voltage Drop per Bridge Element at 1A                                                    | V <sub>F</sub>                       | 1.1          |       |       |       |       |       |        | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C | I <sub>R</sub>                       | 5<br>500     |       |       |       |       |       |        | uA               |
| Typical Junction Capacitance (Note 1)                                                                    | C <sub>J</sub>                       | 25           |       |       |       |       |       |        | pF               |
| Typical Thermal Resistance Per Leg (Note 2)                                                              | R <sub>θJA</sub><br>R <sub>θJL</sub> | 40<br>15     |       |       |       |       |       |        | °C / W           |
| Operating Junction and Storage Temperature Range                                                         | T <sub>J</sub> , T <sub>STG</sub>    | -55 to + 150 |       |       |       |       |       |        | °C               |

### NOTES :

1. Measured at 1 MHz and applied reverse voltage of 4 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

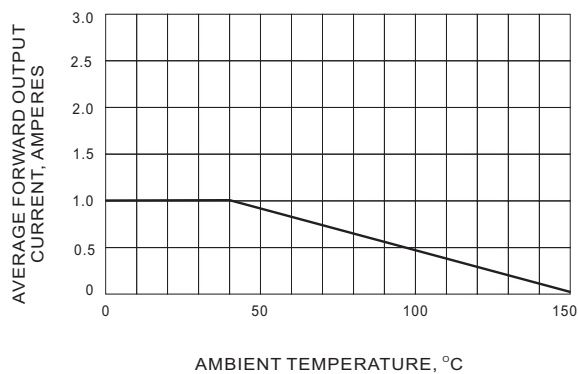


FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

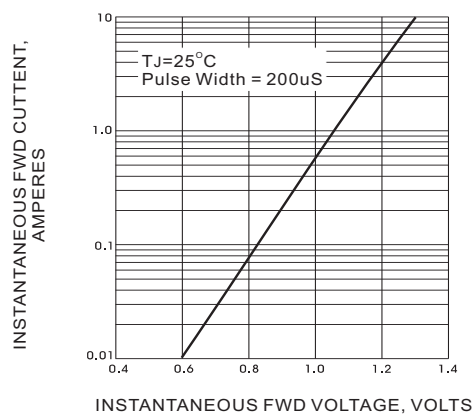


FIG.2 TYPICAL FORWARD CHARACTERISTICS

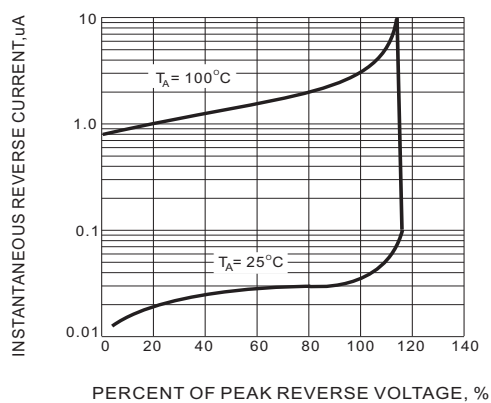


FIG.3 TYPICAL REVERSE CHARACTERISTICS

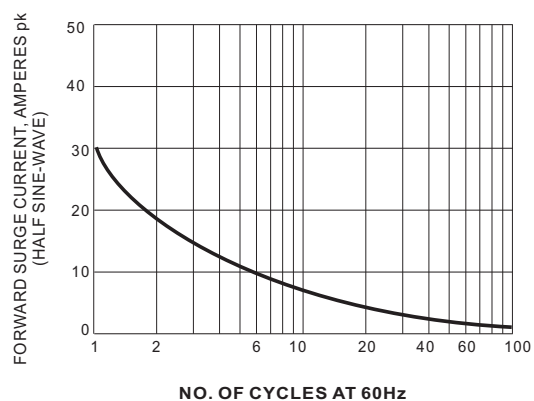


FIG.4 MAX NON-REPETITIVE SURGE CURRENT

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Part No\_packing code\_Version

DI100\_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                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS         | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> 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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