

## **Glass Passivated Bridge Rectifiers**

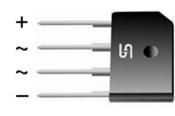
### **FEATURES**

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength of 2000VRMS
- Reliable low cost construction
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

## MECHANICAL DATA

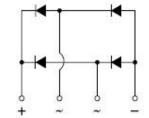
#### Case: TS4B

Molding compound, UL flammability classification rating 94V-0 Base P/N with suffix "G" on packing code - halogen-free **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 1A whisker test **Polarity:** Polarity as marked on the body **Mounting torque:** 5 in-lbs maximum **Weight:** 4 g (approximately)



TS4B





| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)       |                    |              |       |       |            |       |       |       |                  |
|--|--------------------|--------------|-------|-------|------------|-------|-------|-------|------------------|
| PARAMETER  | SYMBOL             | TS10B        | TS10B | TS10B | TS10B      | TS10B | TS10B | TS10B | UNIT             |
|  |                    | 01G          | 02G   | 03G   | 04G        | 05G   | 06G   | 07G   |                  |
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub>   | 50           | 100   | 200   | 400        | 600   | 800   | 1000  | V                |
| Maximum RMS 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 rectified current  | I <sub>F(AV)</sub> |              |       |       | 10         |       |       |       | А                |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load                | I <sub>FSM</sub>   | 150          |       |       |            |       |       | A     |                  |
| Rating for fusing (t<8.3ms)  | l <sup>2</sup> t   |              |       |       | 93         |       |       |       | A <sup>2</sup> s |
| Maximum instantaneous forward voltage (Note 1)<br>@ 5 A<br>@ 10 A                                  | V <sub>F</sub>     |              |       |       | 1.0<br>1.1 |       |       |       | V                |
| Maximum DC reverse current $T_J=25 \ ^{\circ}C$ at rated DC blocking voltage $T_J=125 \ ^{\circ}C$ | I <sub>R</sub>     | 10<br>500    |       |       |            | μA    |       |       |                  |
| Typical thermal resistance   | R <sub>θJC</sub>   | 1.4          |       |       |            |       |       |       | <sup>o</sup> C/W |
| Operating junction temperature range   | TJ                 | - 55 to +150 |       |       |            |       |       |       | OO               |
| Storage temperature range  | T <sub>STG</sub>   | - 55 to +150 |       |       |            |       |       | °C    |                  |

Note 1: Pulse test with PW=300µs, 1% duty cycle



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| ORDERING INFORMATION |              |                                |      |           |  |  |
|----------------------|--------------|--------------------------------|------|-----------|--|--|
| PART NO.             | PACKING CODE | GREEN COMPOUND PACKAGE PACKING |      | PACKING   |  |  |
|                      |              | CODE                           |      |           |  |  |
| T040D00              | C2           | Suffix "G"                     | TS4B | 20 / TUBE |  |  |
| TS10B0xG<br>(Note 1) | X0           |                                | TS4B | Forming   |  |  |
|                      | D2           |                                | TS4B | 20 / TUBE |  |  |

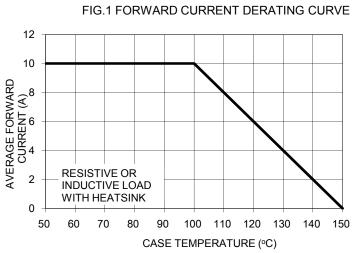
Note 1: "x" defines voltage from 50V (TS10B01G) to 1000V (TS10B07G)

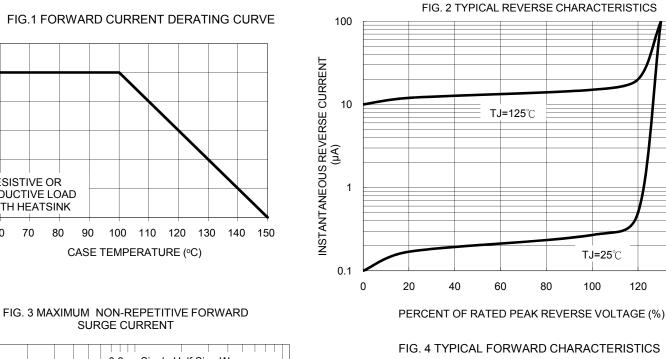
| EXAMPLE       |          |              |                |                |  |  |  |
|---------------|----------|--------------|----------------|----------------|--|--|--|
| PREFERRED P/N | PART NO. | PACKING CODE | GREEN COMPOUND | DESCRIPTION    |  |  |  |
|               |          |              | CODE           |                |  |  |  |
| TS10B01G C2   | TS10B01G | C2           |                |                |  |  |  |
| TS10B01G C2G  | TS10B01G | C2           | G              | Green compound |  |  |  |

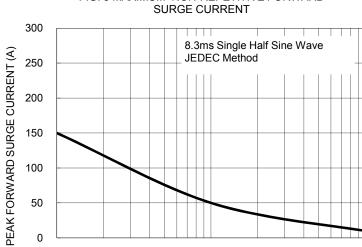
100

## **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

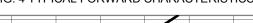


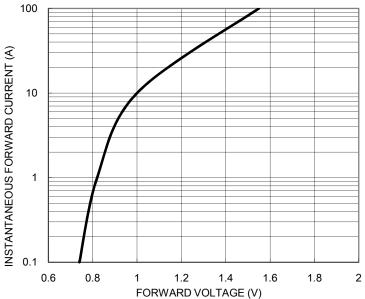




10

NUMBER OF CYCLES AT 60 Hz





50

0

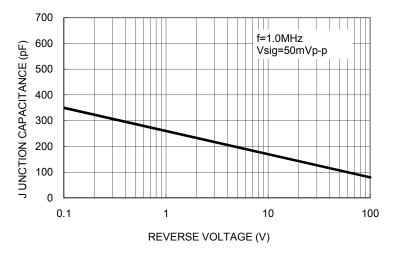
1

120

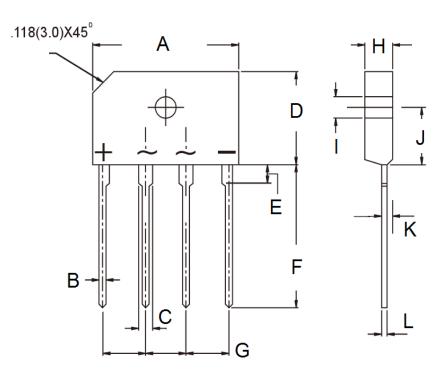
140



FIG. 5 TYPICAL JUNCTION CAPACITANCE



## PACKAGE OUTLINE DIMENSIONS



| DIM.   | Unit  | (mm)  | Unit (inch) |       |  |  |
|--------|-------|-------|-------------|-------|--|--|
| DIIVI. | Min   | Max   | Min         | Max   |  |  |
| А      | 24.70 | 25.30 | 0.972       | 0.996 |  |  |
| В      | 0.90  | 1.10  | 0.035       | 0.043 |  |  |
| С      | 1.80  | 2.20  | 0.071       | 0.087 |  |  |
| D      | 14.70 | 15.30 | 0.579       | 0.602 |  |  |
| E      | 3.96  | 4.37  | 0.156       | 0.172 |  |  |
| F      | 17.00 | 18.00 | 0.669       | 0.709 |  |  |
| G      | 7.30  | 7.70  | 0.287       | 0.303 |  |  |
| Н      | 3.30  | 3.70  | 0.130       | 0.146 |  |  |
| I      | 3.10  | 3.40  | 0.122       | 0.134 |  |  |
| J      | 9.30  | 9.70  | 0.366       | 0.382 |  |  |
| К      | 1.52  | 1.73  | 0.060       | 0.068 |  |  |
| L      | 0.55  | 0.75  | 0.022       | 0.030 |  |  |

#### **MARKING DIAGRAM**



- = Specific Device Code
- = Green Compound
- = Date Code
- = Factory Code



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TS10B01G C2 TS10B02G C2 TS10B03G C2 TS10B04G C2 TS10B05G C2 TS10B06G C2 TS10B07G C2