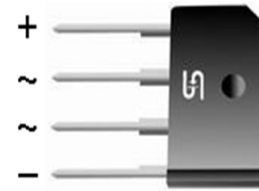


## 4A, 50V - 400V Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength of 2000V<sub>RMS</sub>
- 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



TS4B



### MECHANICAL DATA

**Case:** TS4B

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

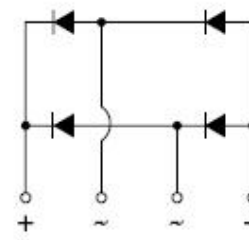
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** Polarity as marked on the body

**Mounting torque:** 5 in-lbs maximum

**Weight:** 4 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)    |                    |              |              |              |              |                  |
|-------------------------------------------------------------------------------------------------|--------------------|--------------|--------------|--------------|--------------|------------------|
| PARAMETER                                                                                       | SYMBOL             | TSS4B<br>01G | TSS4B<br>02G | TSS4B<br>03G | TSS4B<br>04G | UNIT             |
| Maximum repetitive peak reverse voltage                                                         | V <sub>RRM</sub>   | 50           | 100          | 200          | 400          | V                |
| Maximum RMS voltage                                                                             | V <sub>RMS</sub>   | 35           | 70           | 140          | 280          | V                |
| Maximum DC blocking voltage                                                                     | V <sub>DC</sub>    | 50           | 100          | 200          | 400          | V                |
| Maximum average forward rectified current                                                       | I <sub>F(AV)</sub> | 4            |              |              |              | A                |
| 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)                                                                     | I <sup>2</sup> t   | 93           |              |              |              | A <sup>2</sup> s |
| Maximum instantaneous forward voltage (Note 1)<br>@ 4 A                                         | V <sub>F</sub>     | 0.98         |              |              | 1.3          | V                |
| Maximum reverse current @ rated V <sub>R</sub><br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C | I <sub>R</sub>     | 5<br>500     |              |              |              | μA               |
| Maximum reverse recovery time (Note 2)                                                          | t <sub>rr</sub>    | 35           |              |              | 50           | ns               |
| Typical thermal resistance                                                                      | R <sub>θJC</sub>   | 5.5          |              |              |              | °C/W             |
| Operating junction temperature range                                                            | T <sub>J</sub>     | - 55 to +150 |              |              |              | °C               |
| Storage temperature range                                                                       | T <sub>STG</sub>   | - 55 to +150 |              |              |              | °C               |

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

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

| ORDERING INFORMATION |                 |              |                         |         |           |
|----------------------|-----------------|--------------|-------------------------|---------|-----------|
| PART NO.             | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING   |
| TSS4B0xG<br>(Note 1) | H               | C2           | G                       | TS4B    | 20 / Tube |
|                      |                 | X0           |                         | TS4B    | Forming   |
|                      |                 | D2           |                         | TS4B    | 20 / Tube |

Note 1: "x" defines voltage from 50V (TSS4B01G) to 400V (TSS4B04G)

\*: Optional available

| EXAMPLE       |          |                 |              |                     |                                      |
|---------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION                          |
| TSS4B01GHC2G  | TSS4B01G | H               | C2           | G                   | AEC-Q101 qualified<br>Green compound |

## RATINGS AND CHARACTERISTICS CURVES

(T<sub>A</sub>=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

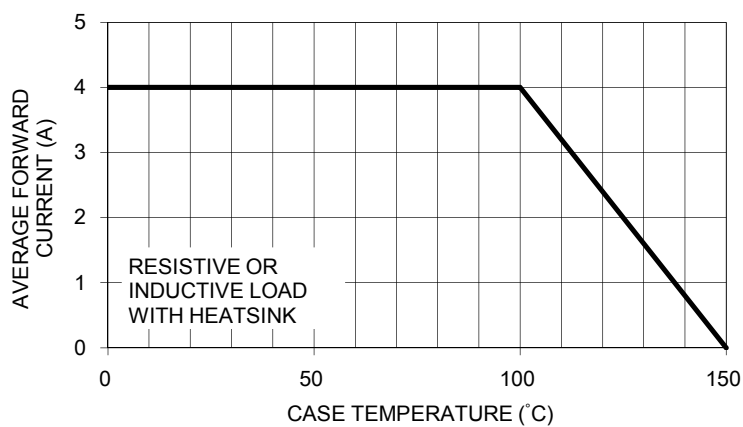


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

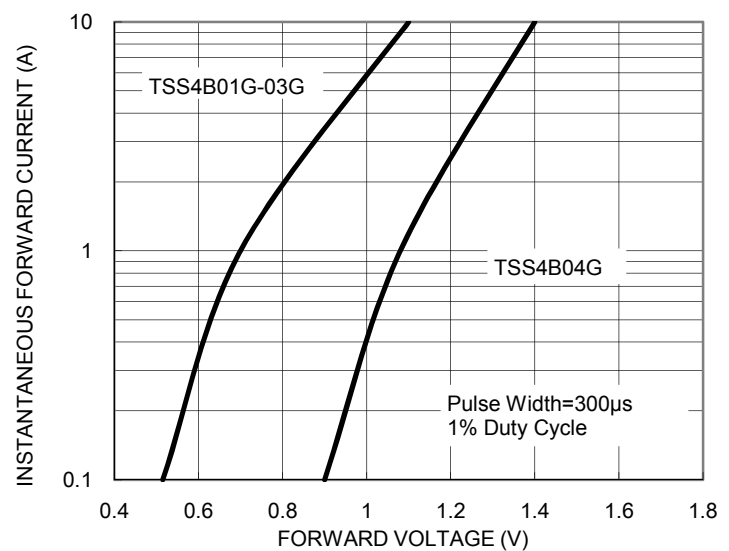


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 4 TYPICAL REVERSE CHARACTERISTICS

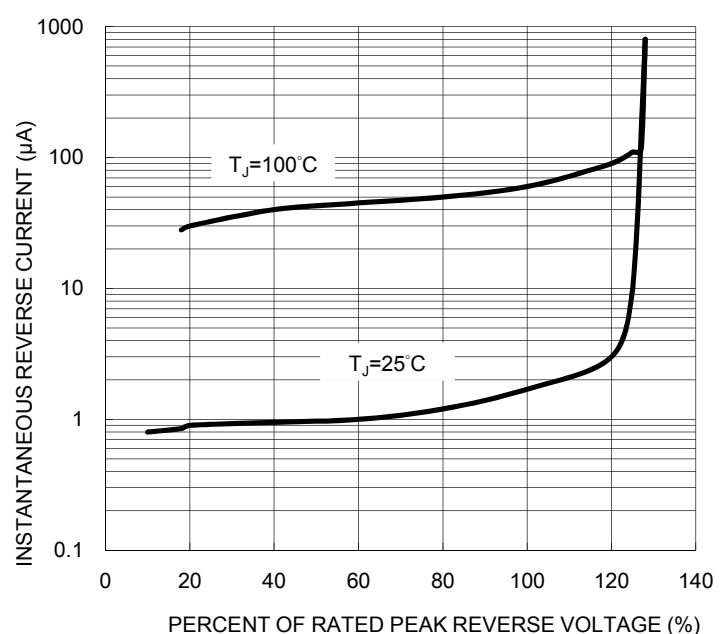


FIG. 5 TYPICAL JUNCTION CAPACITANCE

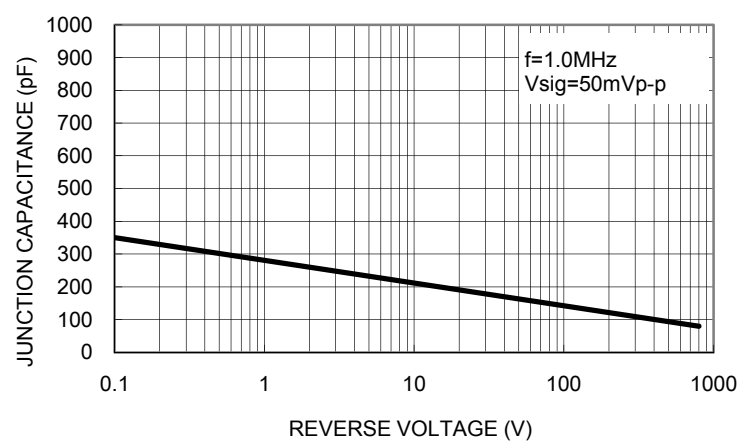
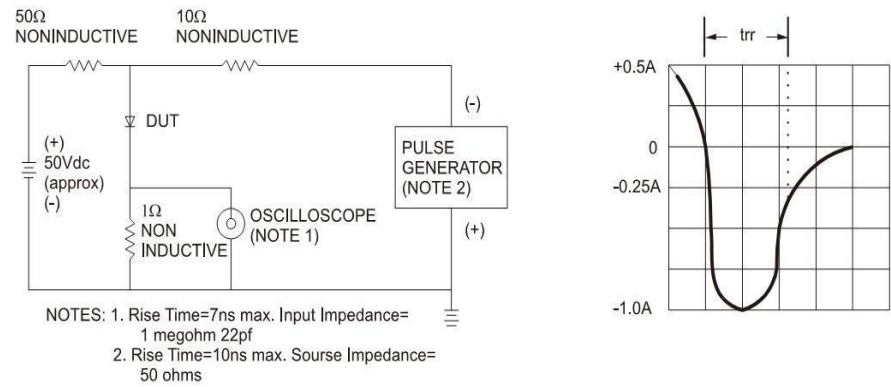
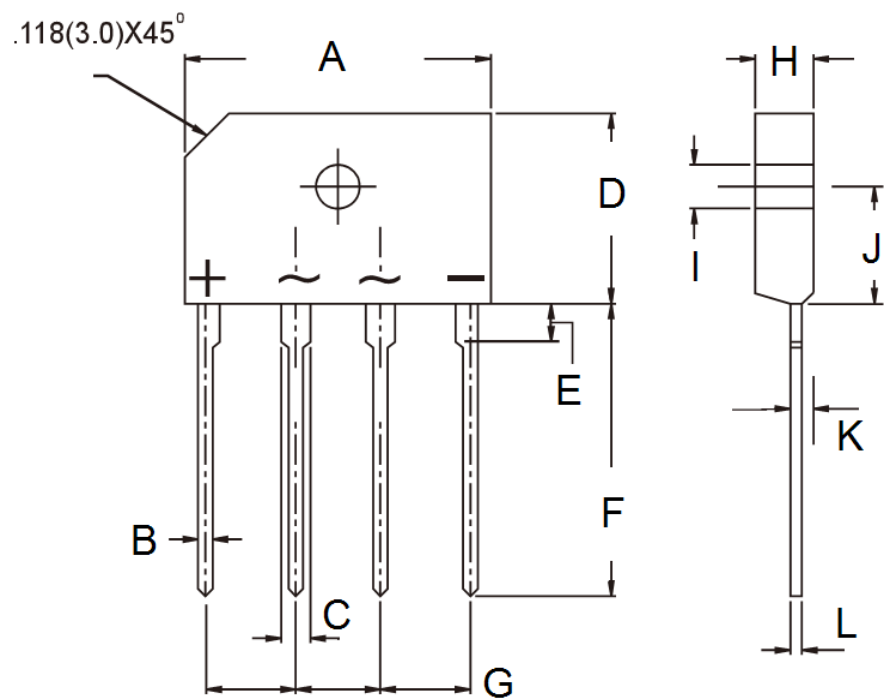


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS

TS4B



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 24.70     | 25.30 | 0.972       | 0.996 |
| B    | 0.90      | 1.10  | 0.035       | 0.043 |
| C    | 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 |
| H    | 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 |
| K    | 1.52      | 1.73  | 0.060       | 0.068 |
| L    | 0.55      | 0.75  | 0.022       | 0.030 |

MARKING DIAGRAM



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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
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