

## 8A, 50V - 1000V Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical IR less than 0.1 $\mu$ A
- High surge current capability
- 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


**TS-6P**


### MECHANICAL DATA

**Case:** TS-6P

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:** 8.17 in-lbs maximum

**Weight:** 7.15 g (approximately)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL                             | TS8P<br>01G  | TS8P<br>02G | TS8P<br>03G | TS8P<br>04G | TS8P<br>05G | TS8P<br>06G | TS8P<br>07G | UNIT             |
|---|------------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| 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>                 | 8            |             |             |             |             |             |             | A                |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load             | I <sub>FSM</sub>                   | 200          |             |             |             |             |             |             | A                |
| Rating for fusing (t<8.3ms)   | I <sup>2</sup> t                   | 166          |             |             |             |             |             |             | A <sup>2</sup> s |
| Maximum instantaneous forward voltage (Note 1)<br>@ 4 A<br>@ 8 A                                | V <sub>F</sub>                     | 1.0<br>1.1   |             |             |             |             |             |             | 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>                     | 10<br>500    |             |             |             |             |             |             | $\mu$ A          |
| Typical thermal resistance  | R <sub><math>\theta</math>JC</sub> | 1.4          |             |             |             |             |             |             | °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=300 $\mu$ s, 1% duty cycle

**ORDERING INFORMATION**

| PART NO.            | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING   |
|---------------------|-----------------|--------------|-------------------------|---------|-----------|
| TS8P0xG<br>(Note 1) | H               | C2           | G                       | TS-6P   | 15 / TUBE |
|                     |                 | X0           |                         |         | Forming   |
|                     |                 | D2           |                         |         | 15 / TUBE |

Note 1: "x" defines voltage from 50V (TS8P01G) to 1000V (TS8P07G)

\*: Optional available

**EXAMPLE**

| EXAMPLE PART NO. | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION                          |
|------------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| TS8P07GHC2G      | TS8P07G  | H               | C2           | G                   | AEC-Q101 qualified<br>Green compound |

**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE



FIG.2 TYPICAL REVERSE CHARACTERISTICS



FIG.3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG.4 TYPICAL FORWARD CHARACTERISTICS

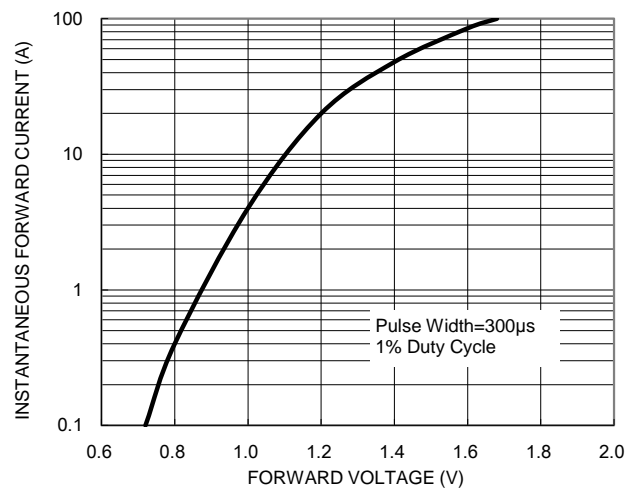
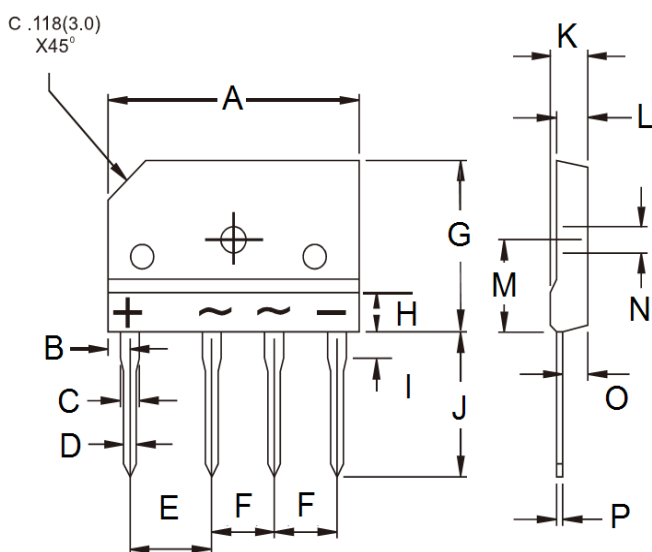


FIG. 5 TYPICAL JUNCTION CAPACITANCE



**PACKAGE OUTLINE DIMENSIONS**

TS-6P



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 29.70     | 30.30 | 1.169       | 1.193 |
| B    | 2.30      | 2.70  | 0.091       | 0.106 |
| C    | 2.00      | 2.40  | 0.079       | 0.094 |
| D    | 0.90      | 1.10  | 0.035       | 0.043 |
| E    | 9.80      | 10.20 | 0.386       | 0.402 |
| F    | 7.30      | 7.70  | 0.287       | 0.303 |
| G    | 19.70     | 20.30 | 0.776       | 0.799 |
| H    | -         | 4.80  | -           | 0.189 |
| I    | 3.80      | 4.20  | 0.150       | 0.165 |
| J    | 17.00     | 18.00 | 0.669       | 0.709 |
| K    | 4.40      | 4.80  | 0.173       | 0.189 |
| L    | 3.40      | 3.80  | 0.134       | 0.150 |
| M    | 10.80     | 11.20 | 0.425       | 0.441 |
| N    | 3.10      | 3.40  | 0.122       | 0.134 |
| O    | 2.50      | 2.90  | 0.098       | 0.114 |
| P    | 0.65      | 0.75  | 0.026       | 0.030 |

**MARKING DIAGRAM**



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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