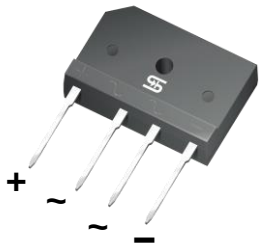
# 8A, 50V - 1000V Glass Passivated Bridge Rectifiers

## FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical IR less than 0.1μA
- 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



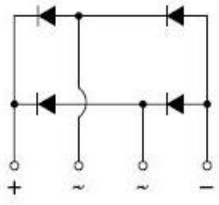

**TS-6P**

Pb-Free

RoHS COMPLIANT

## 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** ($T_A$=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TS8P 01G | TS8P 02G | TS8P 03G | TS8P 04G | TS8P 05G | TS8P 06G | TS8P 07G | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS 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 rectified current | $I_{F(AV)}$ | 8 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 200 | | | | | | | A |
| Rating for fusing (t<8.3ms) | $I^2t$ | 166 | | | | | | | $A^2s$ |
| Maximum instantaneous forward voltage (Note 1)<br>@ 4 A<br>@ 8 A | $V_F$ | <br>1.0<br>1.1 | | | | | | | V |
| Maximum reverse current @ rated $V_R$ $T_J$=25°C<br>$T_J$=125°C | $I_R$ | 10<br>500 | | | | | | | μA |
| Typical thermal resistance | $R_{\theta JC}$ | 1.4 | | | | | | | °C/W |
| Operating junction temperature range | $T_J$ | - 55 to +150 | | | | | | | °C |
| Storage temperature range | $T_{STG}$ | - 55 to +150 | | | | | | | °C |

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

| ORDERING INFORMATION | | | | | |
|---|---|---|---|---|---|
| **PART NO.** | **PART NO. SUFFIX** | **PACKING CODE** | **PACKING CODE SUFFIX (*)** | **PACKAGE** | **PACKING** |
| TS8P0xG (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 Green compound |

## RATINGS AND CHARACTERISTICS CURVES

($T_A$=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

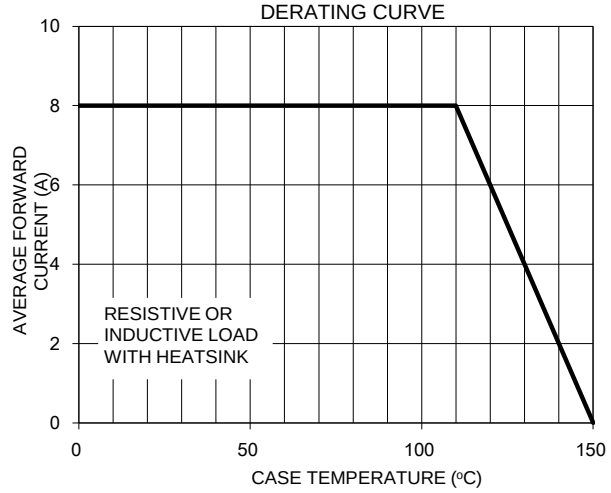



FIG. 2 TYPICAL REVERSE CHARACTERISTICS

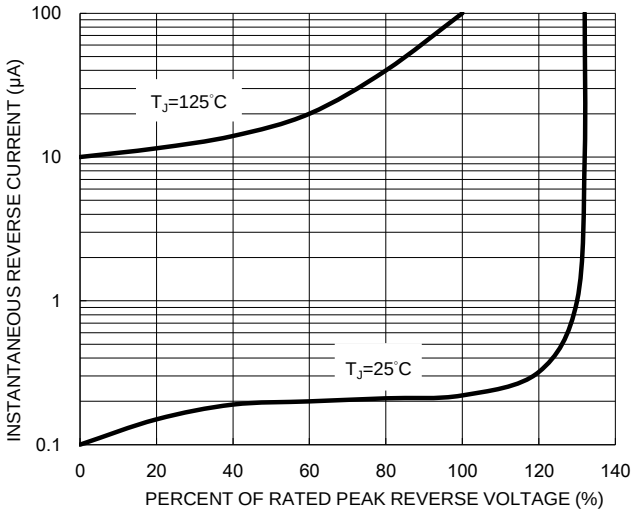



FIG.3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

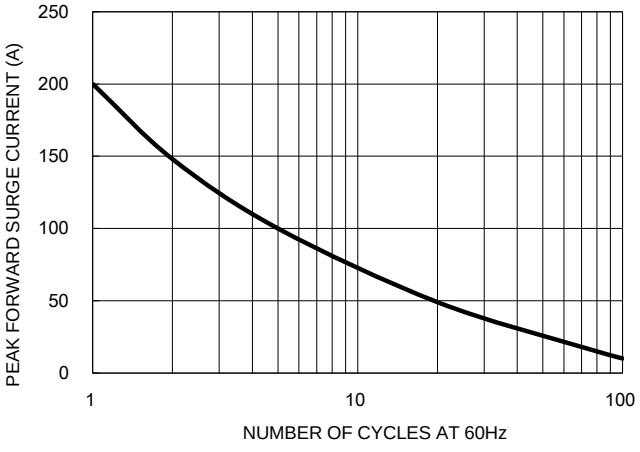



FIG. 4 TYPICAL FORWARD CHARACTERISTICS

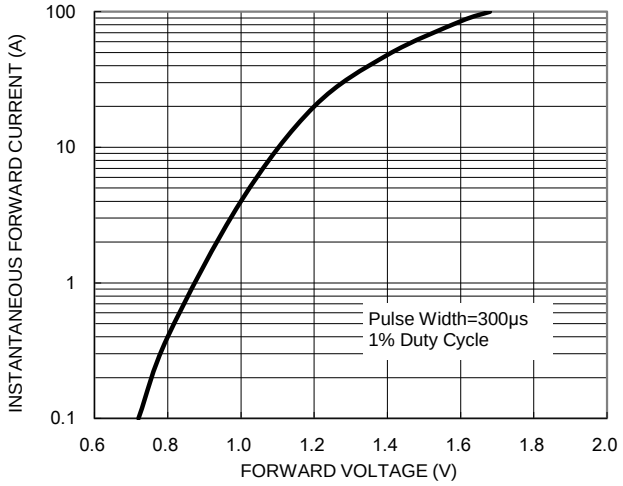
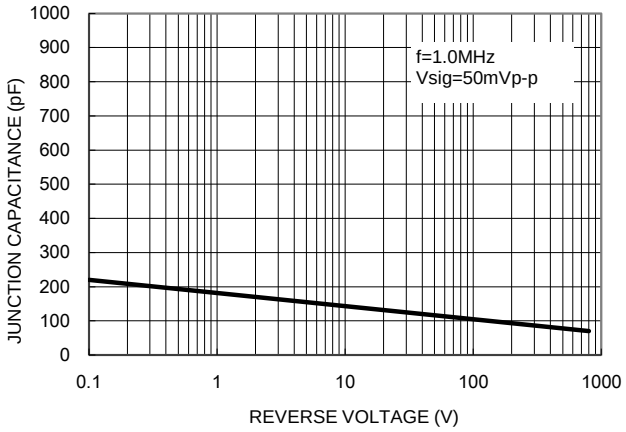
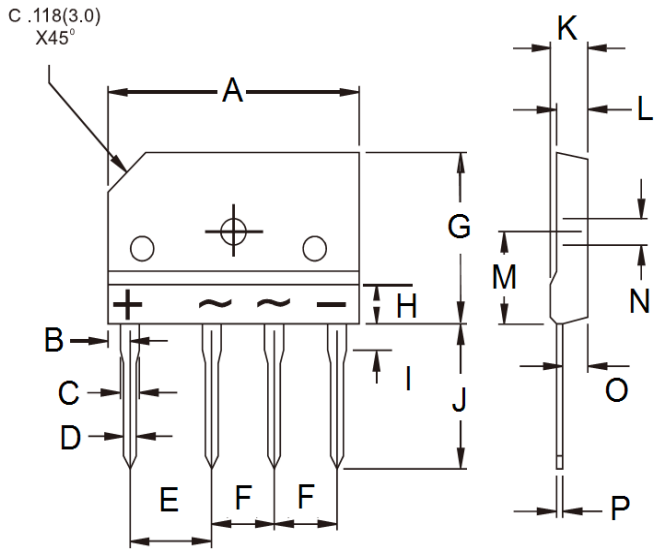


FIG. 5 TYPICAL JUNCTION CAPACITANCE




## 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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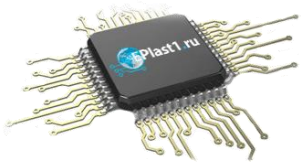
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

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