

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 definition



TS-6P



MECHANICAL DATA

Case: TS-6P

Molding compound, UL flammability classification rating 94V-0

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

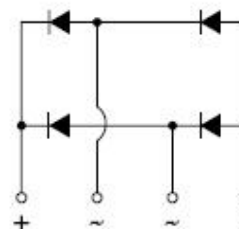
Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

Polarity: Polarity as marked on the body

Mounting torque: 8.17 in-lbs maximum

Weight: 7.15 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | | | | | | |
|--|--------------------|--------------|----------|----------|----------|----------|----------|----------|------------------|
| PARAMETER | SYMBOL | TS10P01G | TS10P02G | TS10P03G | TS10P04G | TS10P05G | TS10P06G | TS10P07G | 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)} | 10 | | | | | | | 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 ² t | 166 | | | | | | | A ² s |
| Maximum instantaneous forward voltage (Note 1) @ 5 A @ 10 A | V _F | 1.0 1.1 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage T _J =25°C T _J =125°C | I _R | 10 500 | | | | | | | μA |
| Typical thermal resistance | R _{θJC} | 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. | PACKING CODE | PACKING CODE SUFFIX | PACKAGE | PACKING |
| TS10P0xG (Note 1) | C2 | G | TS-6P | 15 / TUBE |
| | X0 | | TS-6P | Forming |
| | D2 | | TS-6P | 15 / TUBE (Auto) |

Note 1: "x" defines voltage from 50V (TS10P01G) to 1000V (TS10P07G)

| EXAMPLE | | | | |
|--------------------|----------|--------------|---------------------|----------------|
| PREFERRED PART NO. | PART NO. | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| TS10P07G C2 | TS10P07G | C2 | | |
| TS10P07G C2G | TS10P07G | C2 | G | Green compound |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG. 1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

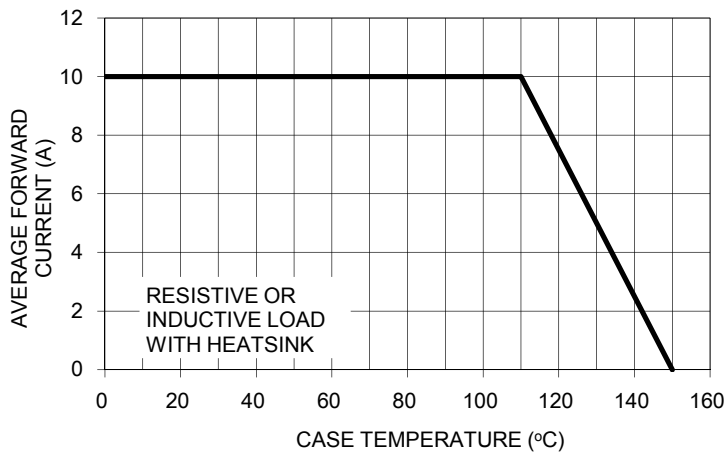


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

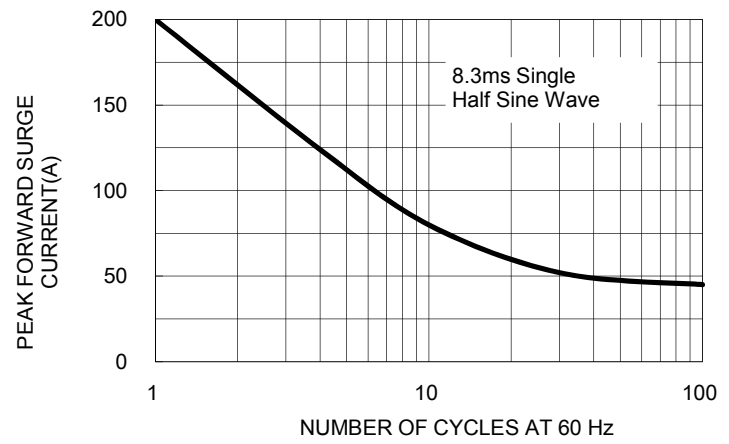


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

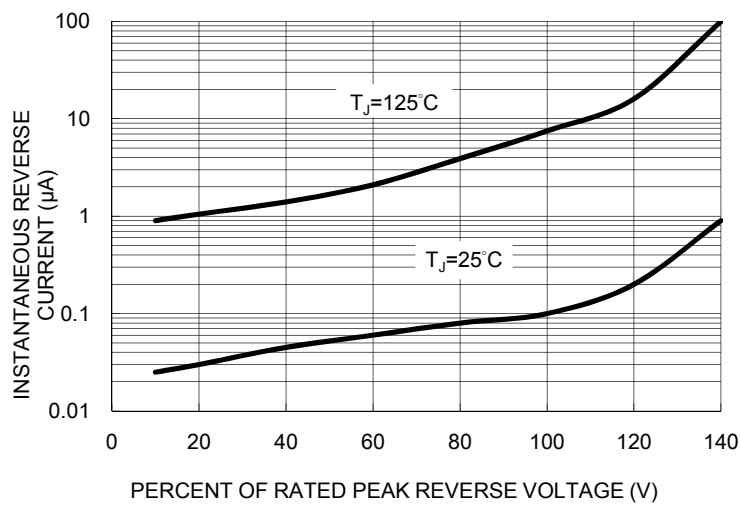


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

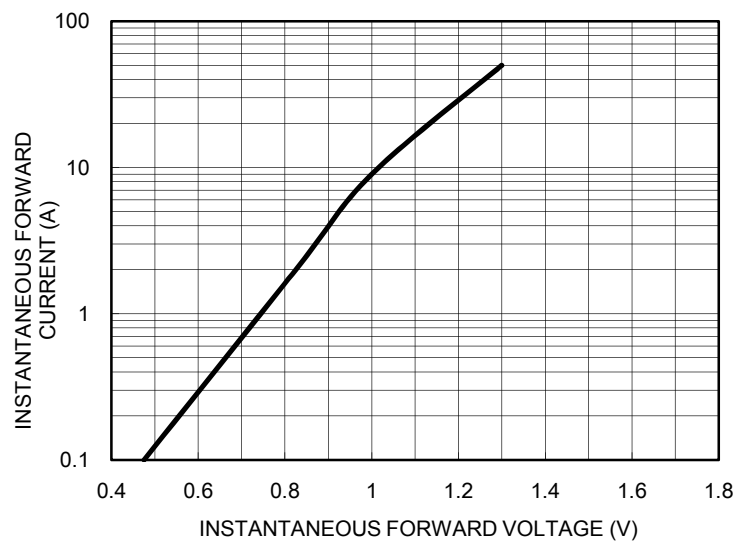
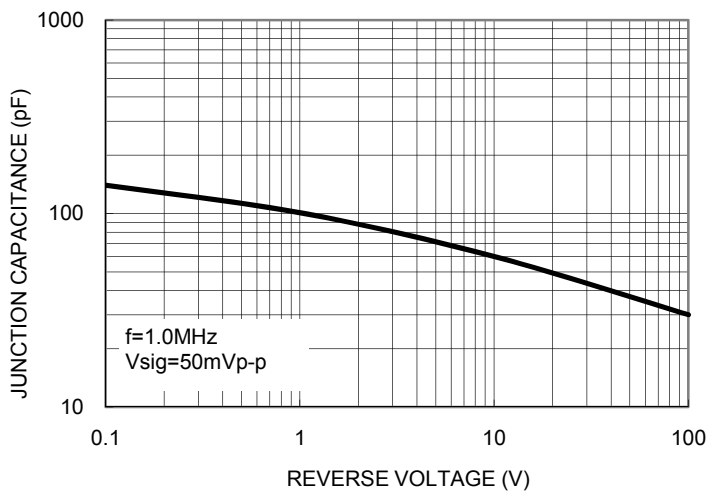
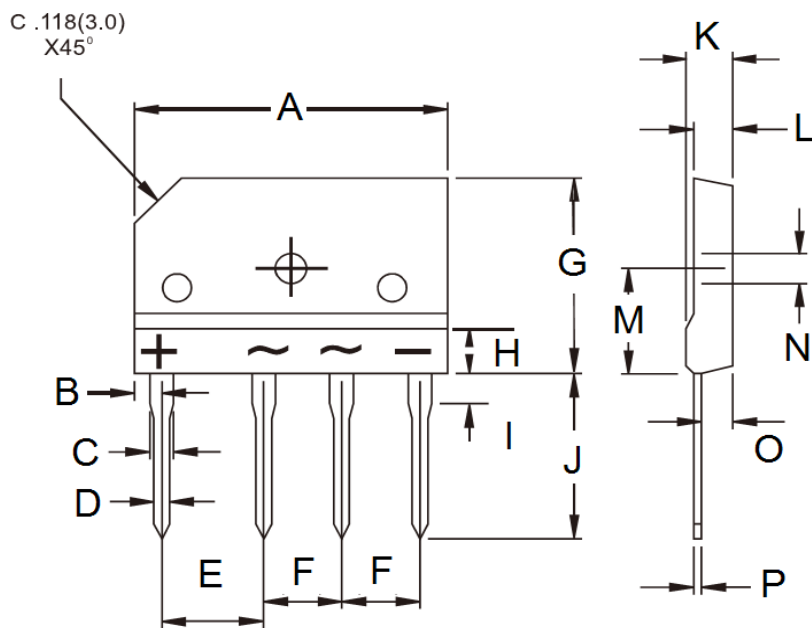


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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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