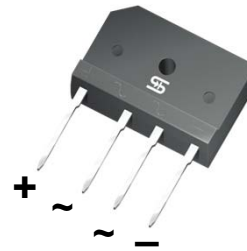


15A, 400V - 1000V Glass Passivated Bridge Rectifiers

FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical I_R less than 0.1 μ A
- High surge current capability
- 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

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

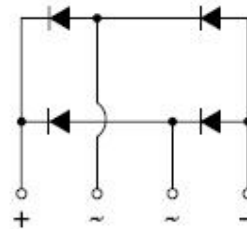
Terminal: Matte tin plated leads, solderable per JESD22-B102

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 ($T_A=25^\circ\text{C}$ unless otherwise noted) | | | | | | |
|---|-----------------|----------------|----------------|----------------|----------------|----------------------|
| PARAMETER | SYMBOL | TS15P 04G-K | TS15P 05G-K | TS15P 06G-K | TS15P 07G-K | UNIT |
| Marking code | | TS15P04G | TS15P05G | TS15P06G | TS15P07G | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 15 | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 240 | | | | A |
| Rating for fusing ($t<8.3\text{ms}$) | I^2t | 239 | | | | A^2s |
| Maximum instantaneous forward voltage (Note 1) @ 7.5 A @ 15 A | V_F | 1.0 1.1 | | | | V |
| Maximum reverse current @ rated V_R $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$ | I_R | 10 500 | | | | μA |
| Typical thermal resistance | $R_{\theta JC}$ | 1.5 | | | | $^\circ\text{C/W}$ |
| Operating junction temperature range | T_J | - 55 to +150 | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | - 55 to +150 | | | | $^\circ\text{C}$ |

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

ORDERING INFORMATION

| PART NO. | PACKING CODE | PACKING CODE SUFFIX | PACKAGE | PACKING |
|---------------------------|--------------|---------------------|---------|-----------|
| TS15P0xG-K (Note 1, 2) | C2 | G | TS-6P | 15 / TUBE |
| | D2 | | TS-6P | 15 / TUBE |

Note 1: "x" defines voltage from 400V (TS15P04G-K) to 1000V (TS15P07G-K)

Note 2: Whole series with green compound

EXAMPLE

| EXAMPLE PART NO. | PART NO. | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
|------------------|------------|--------------|---------------------|----------------|
| TS15P07G-K C2G | TS15P07G-K | C2 | G | Green compound |

RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

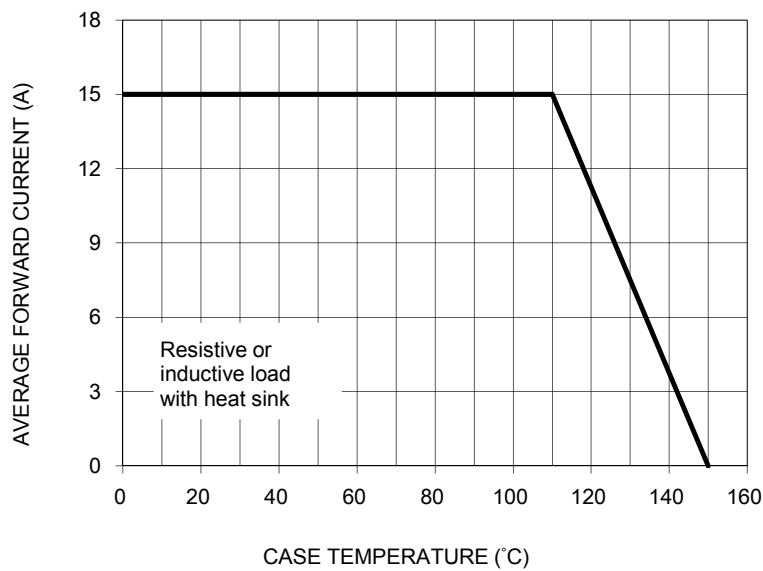


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

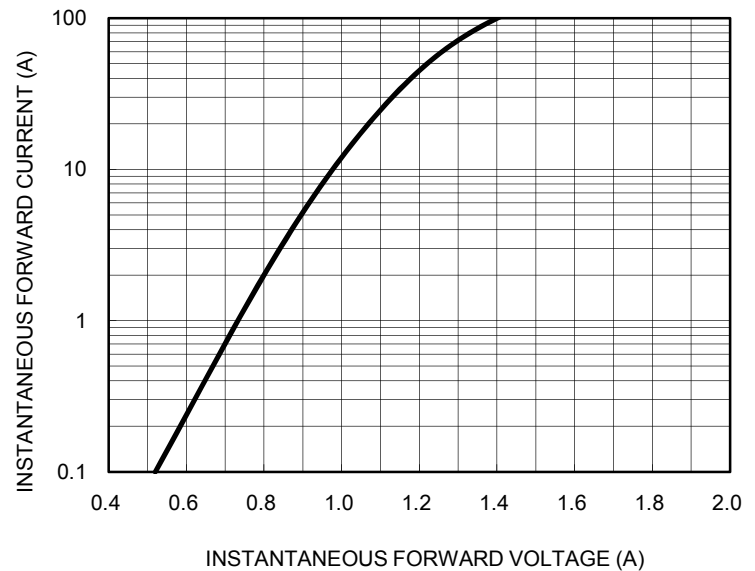


FIG. 3 MAXIMUM SURGE CURRENT

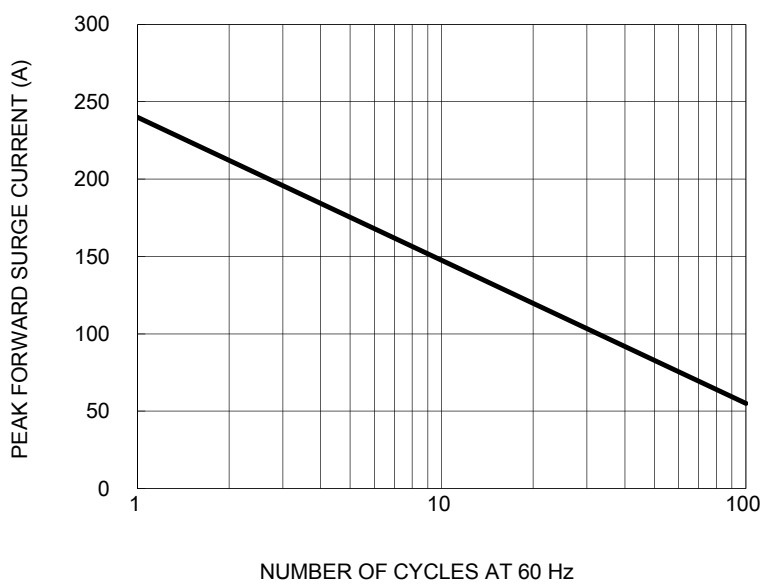


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

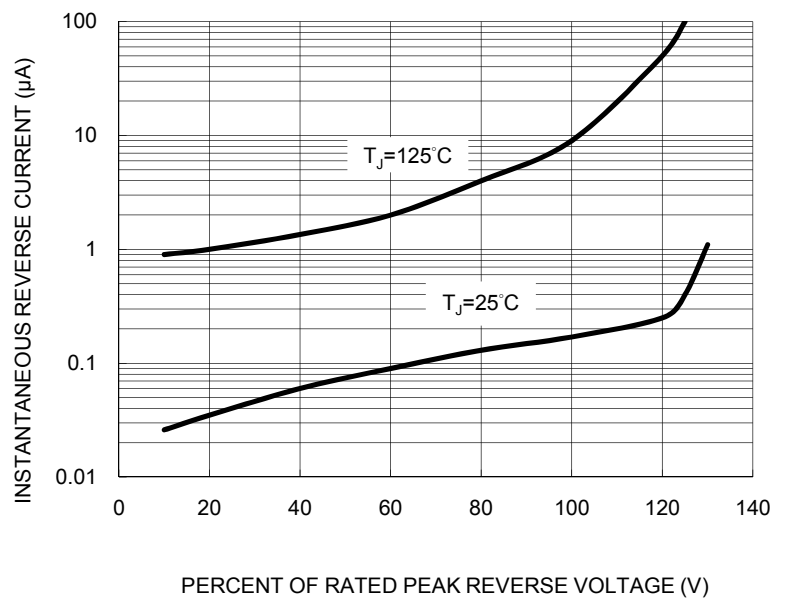
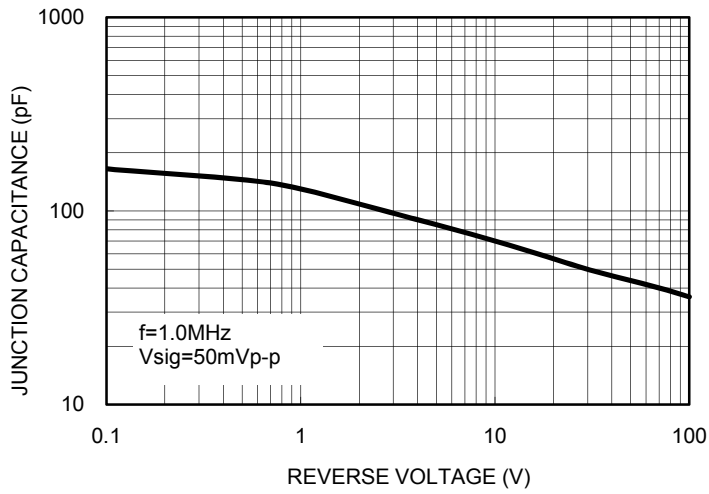
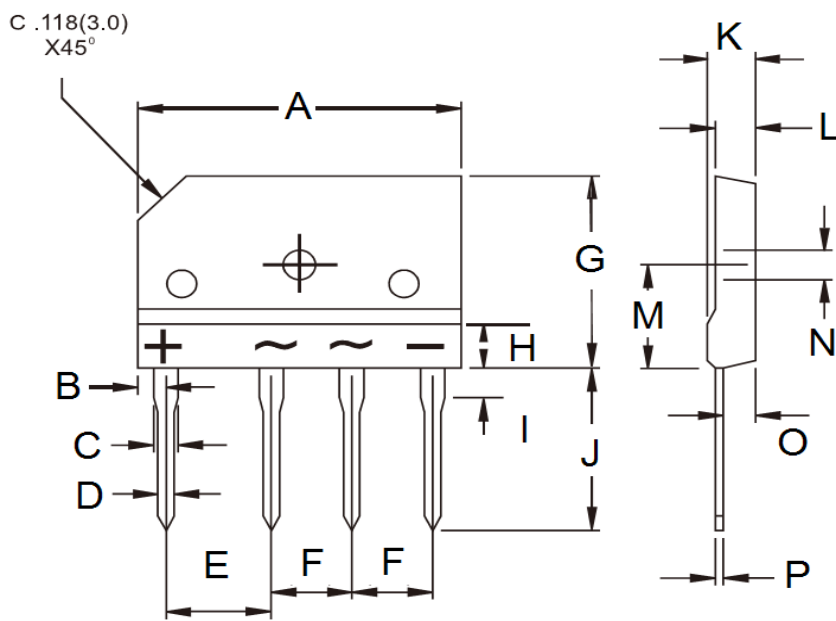


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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 | 0.60 | 0.80 | 0.024 | 0.031 |

MARKING DIAGRAM



- P/N = Marking code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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