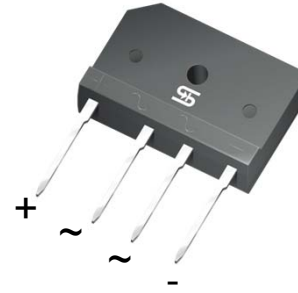


15A, 600V - 800V Low VF- Low Noise Single-Phase Single In-Line Bridge Rectifier

FEATURES

- Low Forward drop enhance the efficiency
- Oxide Planar chip junction
- 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

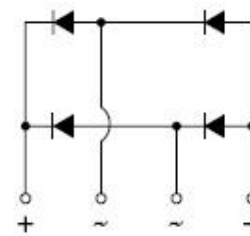


TS-6P



TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification. Especially for high efficiency desktop, telecom, server, white goods, home appliances, TV game console SMPS.



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: Maximum 0.8Nm; 0.5Nm is recommended

Weight: 7.15g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | |
|---|--------------------|--------------|-----------|------------------|
| PARAMETER | SYMBOL | TS15PL05G | TS15PL06G | UNIT |
| Maximum repetitive peak reverse voltage | V _{RRM} | 600 | 800 | V |
| Maximum RMS voltage | V _{RMS} | 420 | 560 | V |
| Maximum DC blocking voltage | V _{DC} | 600 | 800 | 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} | 200 | | A |
| Rating for fusing (t<8.3ms) | i ² t | 166 | | A ² s |
| Peak forward surge current, 1 ms single half sine-wave superimposed on rated load | I _{FSM} | 630 | | A |
| Maximum instantaneous forward voltage (Note 1) I _F = 7.5A | V _F | 0.90 | 0.93 | V |
| Maximum reverse current @ rated V _R T _J =25°C T _J =125°C | I _R | 5 150 | | μA |
| Typical thermal resistance | R _{θJC} | 2 | | °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 |
| TS15PL0xG (Note 1) | H | C2 | G | TS-6P | 15 / TUBE |
| | | X0 | | TS-6P | Forming |
| | | D2 | | TS-6P | 15 / TUBE (Auto) |

Note 1: "x" defines voltage from 600V (TS15pl05G) to 800V (TS15PL06G)

*: Optional available

| EXAMPLE | | | | | |
|--------------------|-----------|-----------------|--------------|---------------------|-----------------------------------|
| PREFERRED PART NO. | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| TS15PL05GHC2G | TS15PL05G | H | C2 | G | AEC-Q101 qualified Green compound |

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

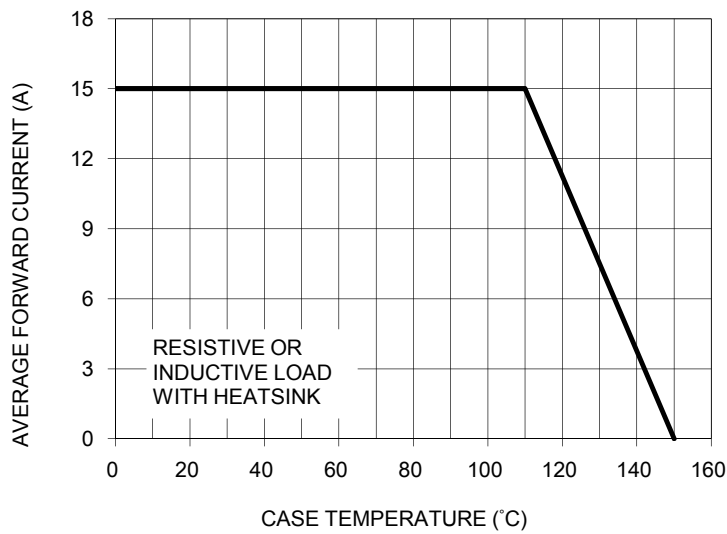


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

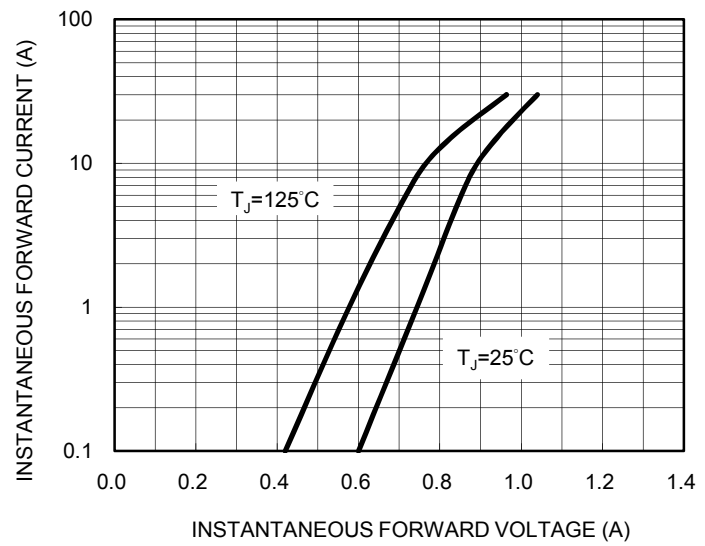


FIG. 3 MAXIMUM SURGE CURRENT

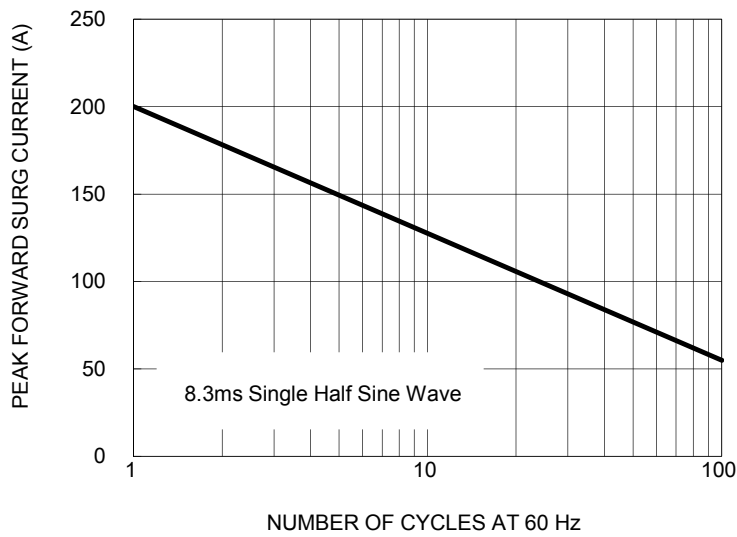


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

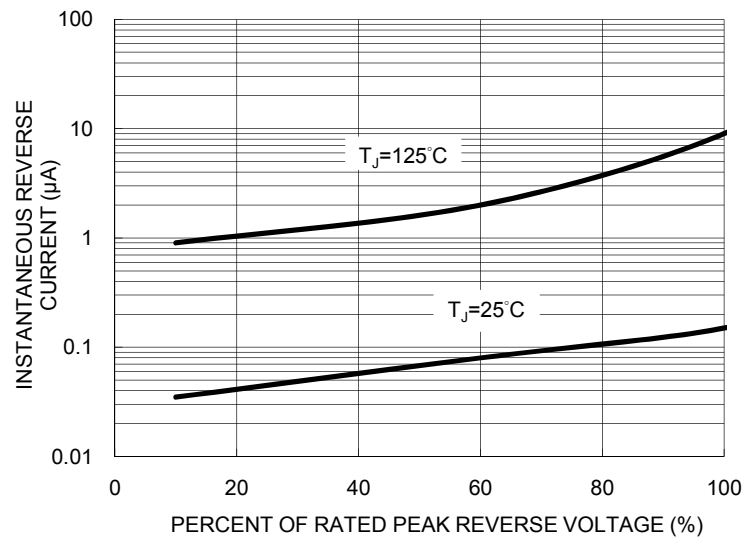
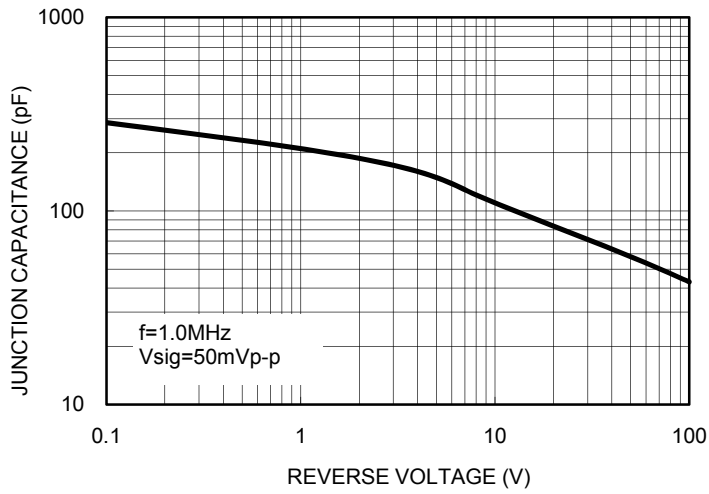
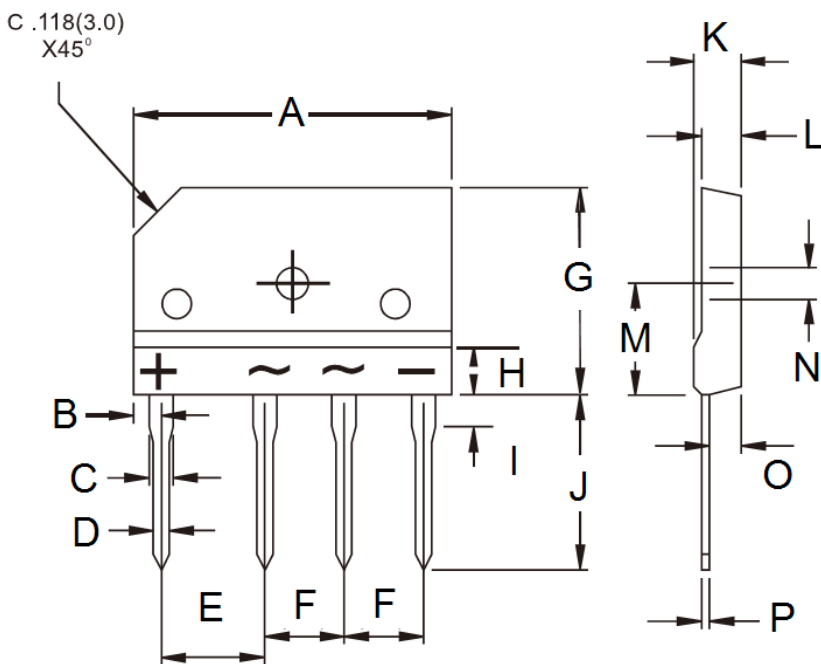


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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 | 0.65 | 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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