

4A, 50V - 400V Glass Passivated Bridge Rectifiers

FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength of 2000V_{RMS}
- Reliable low cost construction
- 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



TS4B



MECHANICAL DATA

Case: TS4B

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)

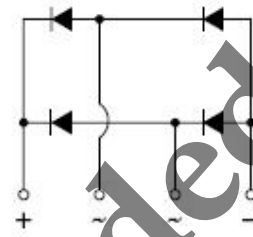
Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: Polarity as marked on the body

Mounting torque: 5 in-lbs maximum

Weight: 4 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | | | |
|--|--------------------|--------------|--------------|--------------|--------------|------------------|
| PARAMETER | SYMBOL | TSS4B 01G | TSS4B 02G | TSS4B 03G | TSS4B 04G | UNIT |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | V |
| Maximum average forward rectified current | I _{F(AV)} | 4 | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | | | A |
| Rating for fusing (t<8.3ms) | I ² t | 93 | | | | A ² s |
| Maximum instantaneous forward voltage (Note 1) @ 4 A | V _F | 0.98 | | | 1.3 | V |
| Maximum reverse current @ rated V _R | I _R | 5 500 | | | | μA |
| Maximum reverse recovery time (Note 2) | t _{rr} | 35 | | | 50 | ns |
| Typical thermal resistance | R _{θJC} | 5.5 | | | | °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

Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

| ORDERING INFORMATION | | | | | |
|----------------------|-----------------|--------------|-------------------------|---------|-----------|
| PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING |
| TSS4B0xG (Note 1) | H | C2 | G | TS4B | 20 / Tube |
| | | X0 | | TS4B | Forming |
| | | D2 | | TS4B | 20 / Tube |

Note 1: "x" defines voltage from 50V (TSS4B01G) to 400V (TSS4B04G)

*: Optional available

| EXAMPLE | | | | | |
|---------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| TSS4B01GHC2G | TSS4B01G | 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

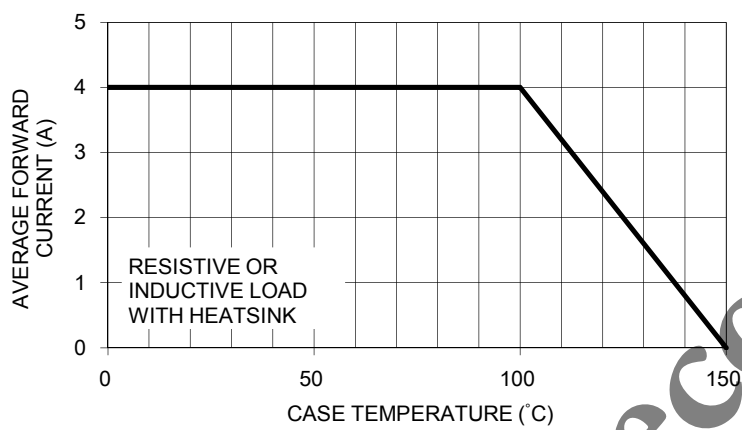


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

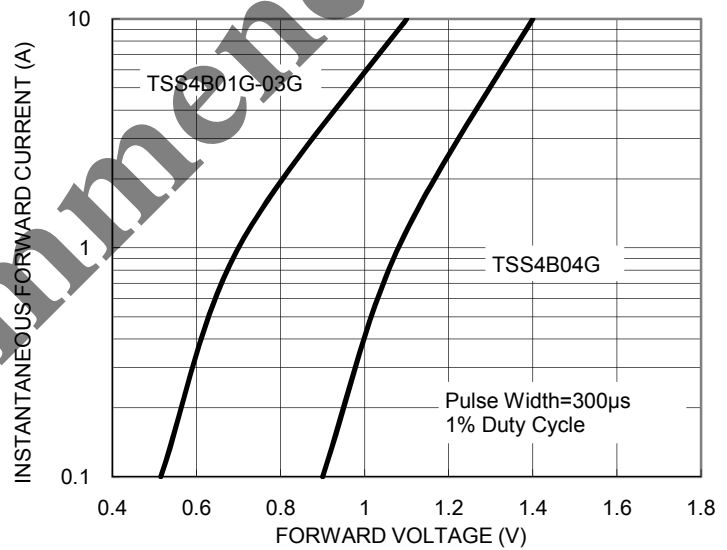


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 4 TYPICAL REVERSE CHARACTERISTICS

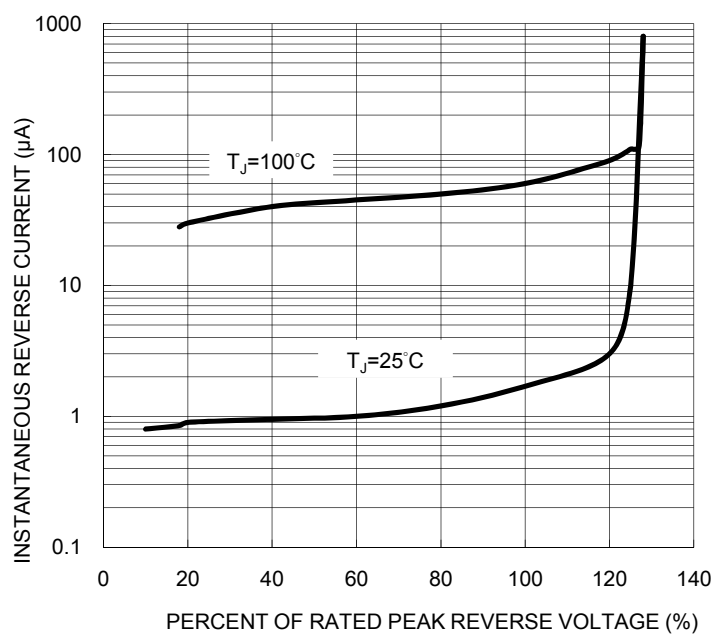


FIG. 5 TYPICAL JUNCTION CAPACITANCE

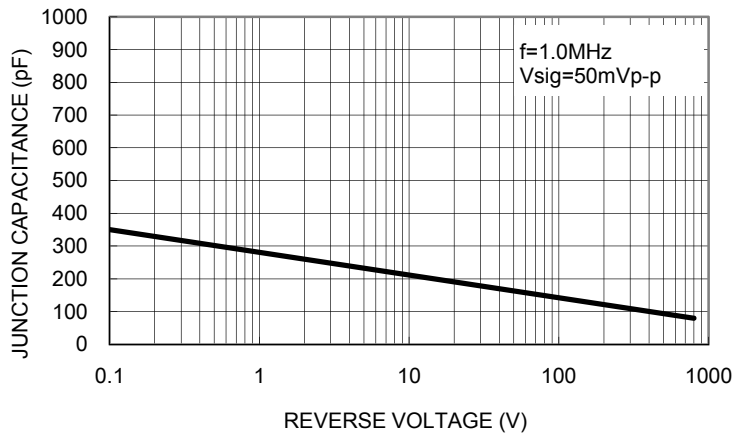
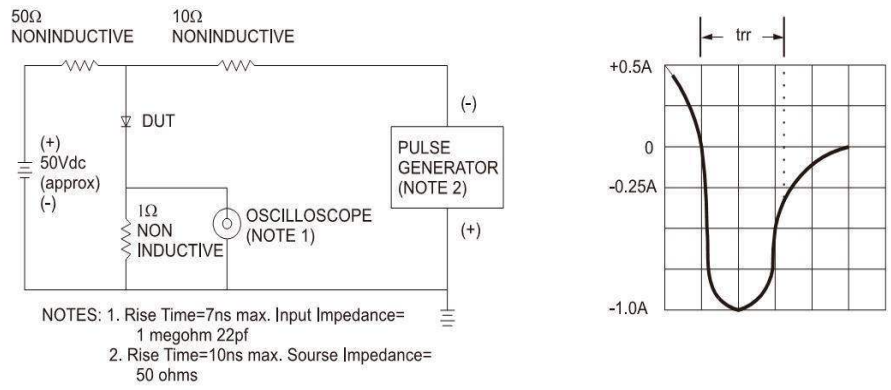
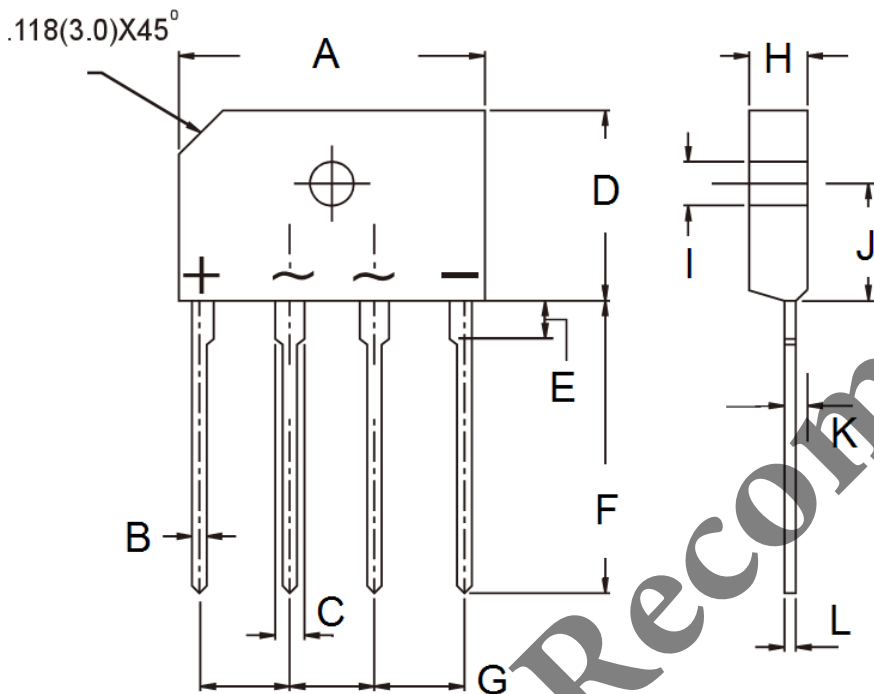


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS

TS4B



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 24.70 | 25.30 | 0.972 | 0.996 |
| B | 0.90 | 1.10 | 0.035 | 0.043 |
| C | 1.80 | 2.20 | 0.071 | 0.087 |
| D | 14.70 | 15.30 | 0.579 | 0.602 |
| E | 3.96 | 4.37 | 0.156 | 0.172 |
| F | 17.00 | 18.00 | 0.669 | 0.709 |
| G | 7.30 | 7.70 | 0.287 | 0.303 |
| H | 3.30 | 3.70 | 0.130 | 0.146 |
| I | 3.10 | 3.40 | 0.122 | 0.134 |
| J | 9.30 | 9.70 | 0.366 | 0.382 |
| K | 1.52 | 1.73 | 0.060 | 0.068 |
| L | 0.55 | 0.75 | 0.022 | 0.030 |

MARKING DIAGRAM



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

Not Recommended

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