

TS10B01G - TS10B07G

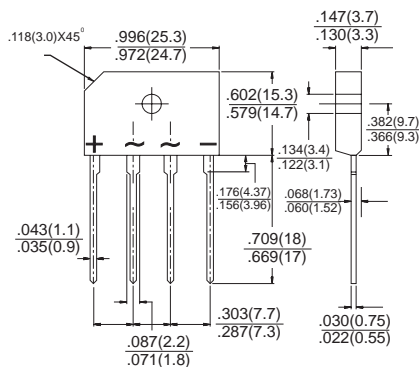
Single Phase 10.0 Amps.
Glass Passivated Bridge Rectifiers

TS4B



Features

- ✧ UL Recognized File # E-96005
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Surge overload rating to 150 amperes peak
- ✧ High case dielectric strength of 2000V_{RMS}
- ✧ Isolated voltage from case to lead over 2500 volts.
- ✧ High temperature soldering guaranteed:
260°C / 10 seconds / 0.375" (9.5mm) lead length
at 5 lbs (2.3Kg) tension



Dimensions in inches and (millimeters)

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Leads solderable per MIL-STD-750 Method 2026
- ✧ Weight: 0.15 ounce, 4 grams
- ✧ Mounting torque: 5 in. lbs. max.

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | TS10B 01G | TS10B 02G | TS10B 03G | TS10B 04G | TS10B 05G | TS10B 06G | TS10B 07G | Units |
|---|-----------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------------|
| Maximum Recurrent 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 See Fig. 2 | $I_{(AV)}$ | 10 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 200 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 5.0A @ 10A | V_F | 1.0 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | μA μA |
| Typical Thermal Resistance (Note) | $R_{\theta JC}$ | 1.4 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to + 150 | | | | | | | $^\circ\text{C}$ |

Note: Thermal Resistance from Junction to Case with Device Mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

RATINGS AND CHARACTERISTIC CURVES (TS10B01G THRU TS10B07G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

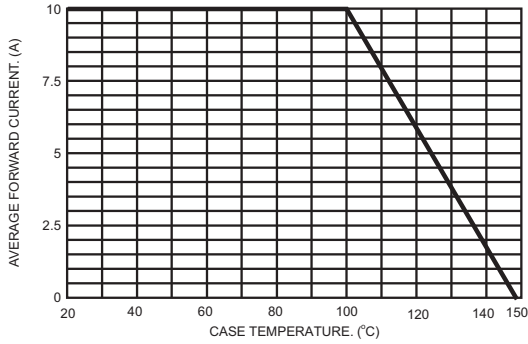


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

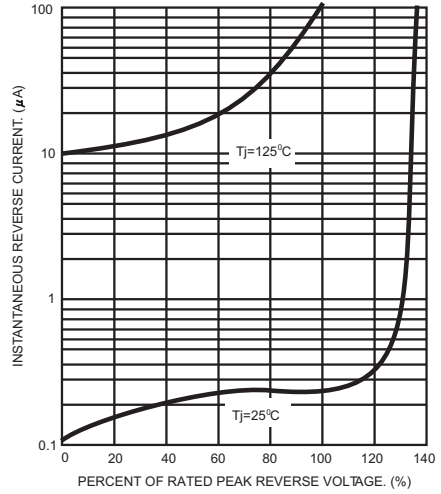


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

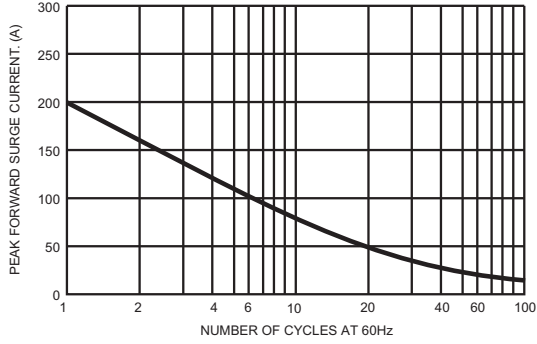


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

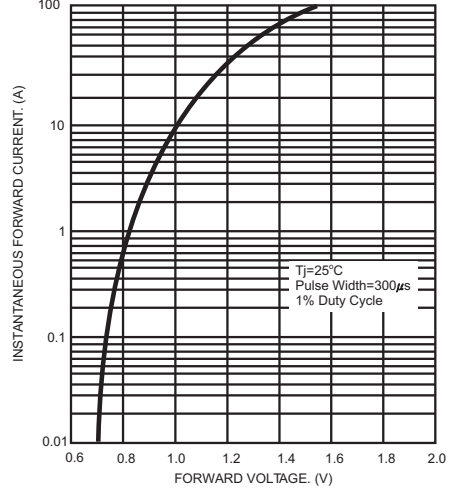


FIG.4- TYPICAL JUNCTION CAPACITANCE

