



# TS20P01G - TS20P07G

Single Phase 20.0 AMPS.  
Glass Passivated Bridge Rectifiers

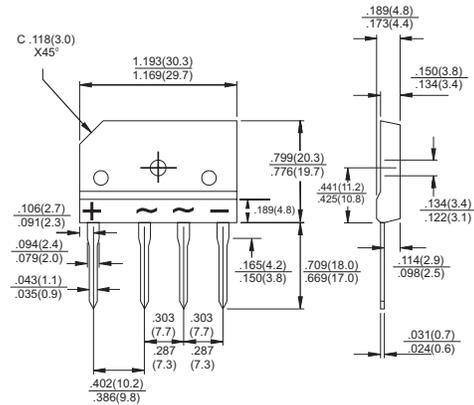
## TS-6P

### 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 250 amperes peak
- ◇ High case dielectric strength of 2000 V<sub>RMS</sub>
- ◇ Isolated voltage from case to lead over 2500 volts

### Mechanical Data

- ◇ Case: Molded plastic
- ◇ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ◇ Weight: 0.3 ounce, 8 grams
- ◇ Mounting torque: 8.17 in. lbs. max.



Dimensions in inches and (millimeters)

### 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                         | TS20P 01G    | TS20P 02G | TS20P 03G | TS20P 04G | TS20P 05G | TS20P 06G | TS20P 07G | Units    |
|---|--------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>               | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V        |
| Maximum RMS Voltage   | V <sub>RMS</sub>               | 35           | 70        | 140       | 280       | 420       | 560       | 700       | V        |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>                | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V        |
| Maximum Average Forward Rectified Current<br>See Fig. 1   | I <sub(av)< sub=""></sub(av)<> | 20.0         |           |           |           |           |           |           | A        |
| Peak Forward Surge Current, 8.3 ms Single<br>Half Sine-wave Superimposed on Rated<br>Load (JEDEC method )   | I <sub>FSM</sub>               | 250          |           |           |           |           |           |           | A        |
| Maximum Instantaneous Forward Voltage<br>@ 10A<br>@ 20A   | V <sub>F</sub>                 | 1.0<br>1.1   |           |           |           |           |           |           | V        |
| Maximum DC Reverse Current @ T <sub>A</sub> =25 °C<br>at Rated DC Blocking Voltage @ T <sub>A</sub> =125 °C | I <sub>R</sub>                 | 10<br>500    |           |           |           |           |           |           | uA<br>uA |
| Typical Thermal resistance (Note)   | R <sub>θJC</sub>               | 0.8          |           |           |           |           |           |           | °C/W     |
| Operating Temperature Range   | T <sub>J</sub>                 | -55 to +150  |           |           |           |           |           |           | °C       |
| Storage Temperature Range   | T <sub>STG</sub>               | -55 to + 150 |           |           |           |           |           |           | °C       |

Note: Thermal Resistance from Junction to Case with Device Mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

## RATINGS AND CHARACTERISTIC CURVES (TS20P01G THRU TS20P07G)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

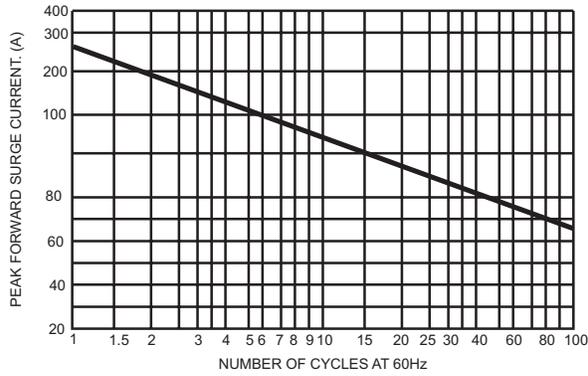


FIG.2- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

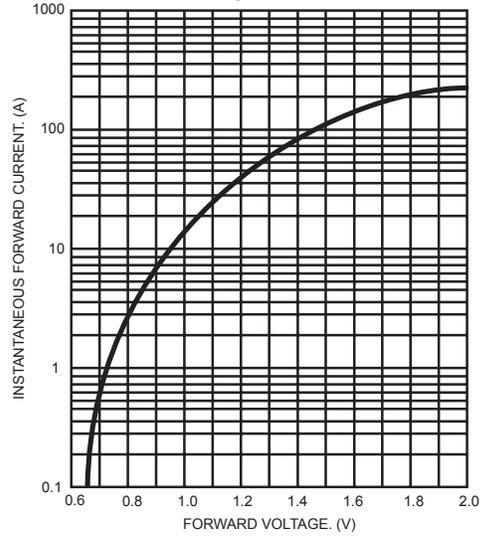


FIG.3- MAXIMUM FORWARD CURRENT DERATING CURVE

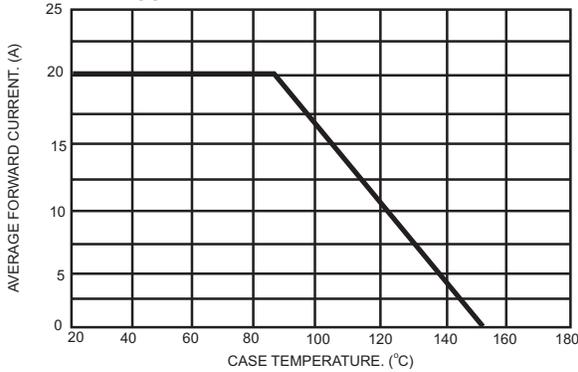


FIG.5- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

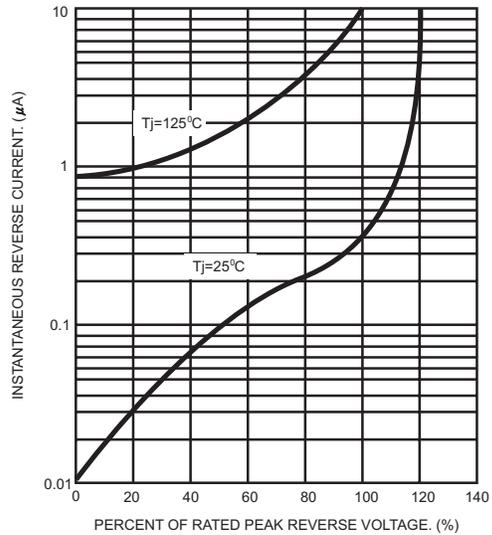


FIG.4- TYPICAL JUNCTION CAPACITANCE

