

## TS20P01G THRU TS20P07G

## Single Phase 20.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
20.0 Amperes

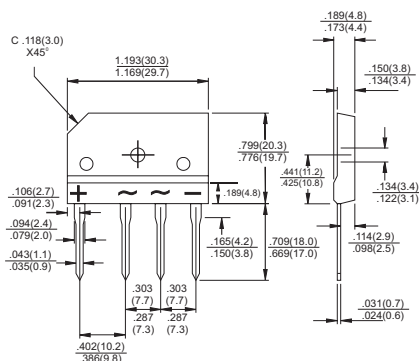
## Features

- ✧ 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>

## 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.

## TS-6P



**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<br>01G | TS20P<br>02G | TS20P<br>03G | TS20P<br>04G | TS20P<br>05G | TS20P<br>06G | TS20P<br>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<br>See Fig. 1                                                   | $I_{(AV)}$      | 20.0         |              |              |              |              |              |              | A                  |
| Peak Forward Surge Current, 8.3 ms Single<br>Half Sine-wave Superimposed on Rated<br>Load (JEDEC method ) | $I_{FSM}$       | 250          |              |              |              |              |              |              | A                  |
| Maximum Instantaneous Forward Voltage<br>@ 20.0A                                                          | $V_F$           | 1.1          |              |              |              |              |              |              | V                  |
| Maximum DC Reverse Current @ $T_A=25^{\circ}C$<br>at Rated DC Blocking Voltage @ $T_A=125^{\circ}C$       | $I_R$           | 10.0<br>500  |              |              |              |              |              |              | $\mu A$<br>$\mu A$ |
| Typical Thermal resistance (Note)                                                                         | $R_{\theta JC}$ | 0.8          |              |              |              |              |              |              | $^{\circ}C/W$      |
| Operating Temperature Range                                                                               | $T_J$           | -55 to +150  |              |              |              |              |              |              | $^{\circ}C$        |
| Storage Temperature Range                                                                                 | $T_{STG}$       | -55 to + 150 |              |              |              |              |              |              | $^{\circ}C$        |

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 FORWARD CURRENT DERATING CURVE

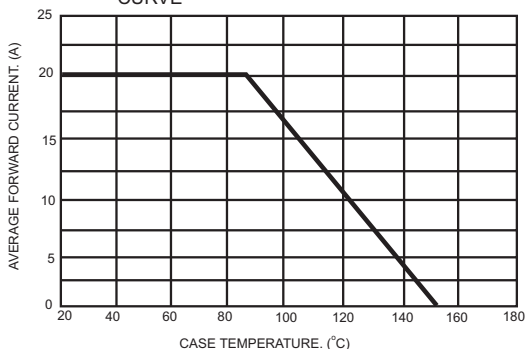


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

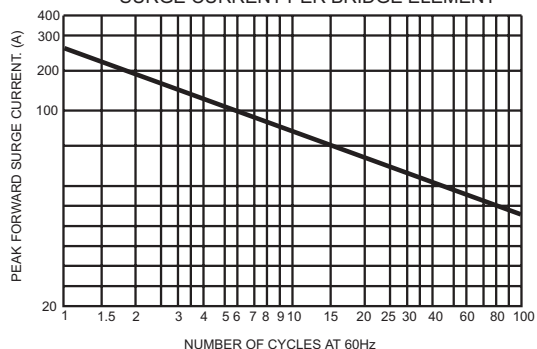


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

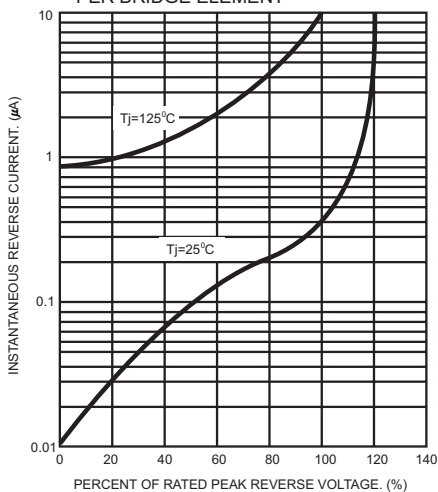


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

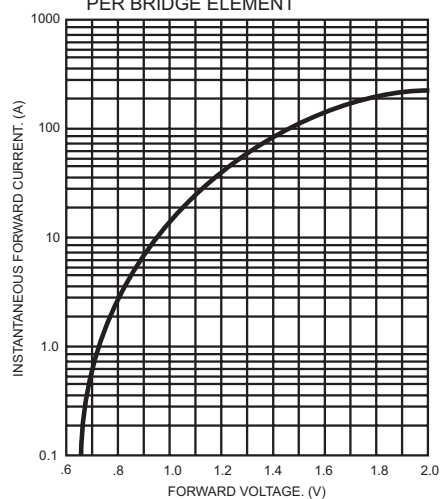


FIG.3- TYPICAL TRANSIENT THERMAL IMPEDANCE

