TAIWAN SEMICONDUCTOR

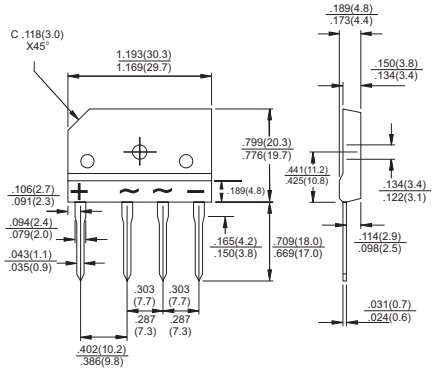
RoHS COMPLIANCE

TS25P01G - TS25P07G

Single Phase 25.0 AMPS.
Glass Passivated Bridge Rectifiers

TS-6P





Dimensions in inches and (millimeters)

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 300 amperes peak
- ✧ High case dielectric strength of 2000 V_{RMS}
- ✧ 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.

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	TS25P 01G	TS25P 02G	TS25P 03G	TS25P 04G	TS25P 05G	TS25P 06G	TS25P 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. 1	$I_{(AV)}$	25							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	350							A
Maximum Instantaneous Forward Voltage @ 12.5A @ 25A	V_F	1.0 1.1							V
Maximum DC Reverse Current @ T_A=25 °C at Rated DC Blocking Voltage @ T_A=125 °C	I_R	10 500							uA uA
Typical Thermal Resistance (Note)	$R_{\theta JC}$	0.6							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-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 (TS25P01G THRU TS25P07G)

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

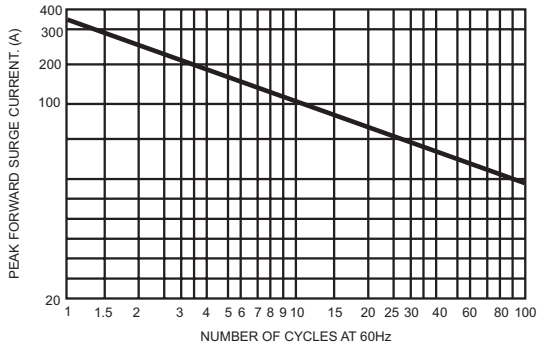


FIG.2- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

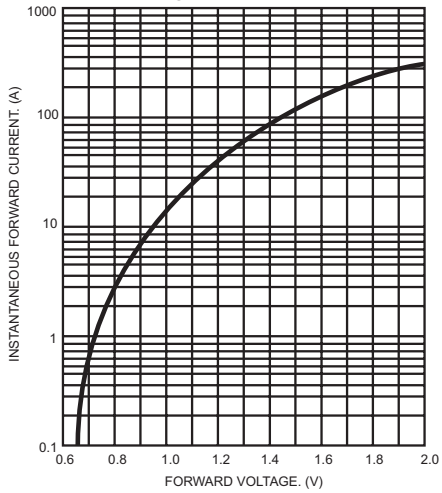


FIG.3- MAXIMUM FORWARD CURRENT DERATING CURVE

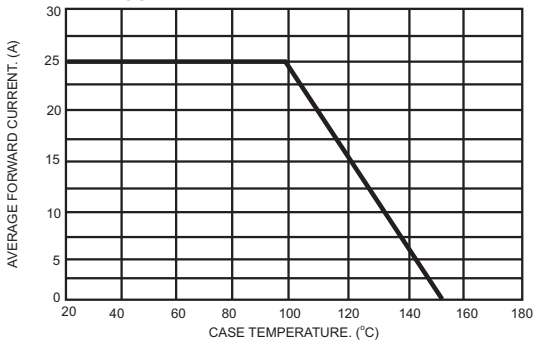


FIG.4- TYPICAL JUNCTION CAPACITANCE

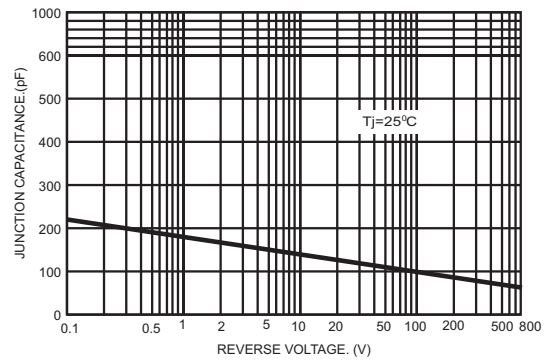


FIG.5- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

