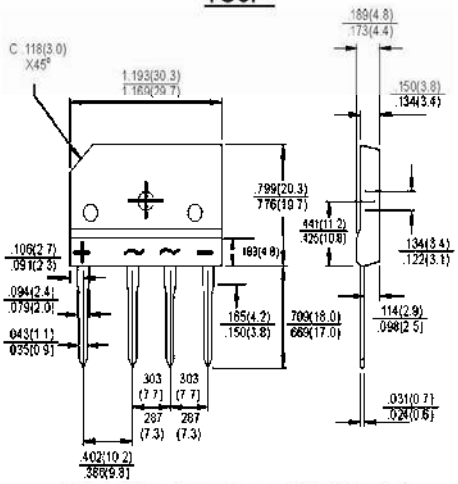
TAIWAN SEMICONDUCTOR

TS6P01G - TS6P07G

Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers

TS6P

RoHS COMPLIANCE



Dimension in inches and (millimeter)

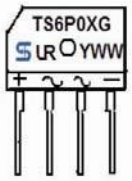
Features

- ✧ UL Recoganized File # E-326243
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength of 2000V_{RMS}
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability to 150A
- ✧ High temperature soldering guaranteed: 260℃ / 10 seconds at 5 lbs., (2.3 kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Case : Molded plastic body
- ✧ Terminal : Pure tin plated , Lead free. Leads solderable per MIL-STD-202 Method 208
- ✧ Weight : 7.15 grams (0.268 ounce)
- ✧ Mounting Torque : 8.17 in-lbs Max.

Marking Diagram



TS6P0XG=Specific Device code
G = Green Compound
Y = Year Code
WW = Work Week Code

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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	TS6P 01G	TS6P 02G	TS6P 03G	TS6P 04G	TS6P 05G	TS6P 06G	TS6P 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 @ T_c = 110°C	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150							A
Rating of fusing (t < 8.3mS)	I^2t	93							A^2S
Maximum Instantaneous Forward Voltage @ 3.0A @ 6.0A	V_F	1.0 1.1							V
Maximum DC Reverse Current @ TA=25℃ at Rated DC Blocking Voltage @ TA=125℃	I_R	10 500							uA
Typical Junction Capacitance per leg (Note 1)	Cj	53							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.8							oC/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note 1 : Measured at 1MHz and applied Reverse bias of 4.0V DC.

2. Device mounted on 2" x 3" x 0.25" Al-plate heat sink,

Rating and Sharacteristic Curves (TS6P01G Thru TS6P07G)

FIG 1 Maximum Derating Curve for Output Current

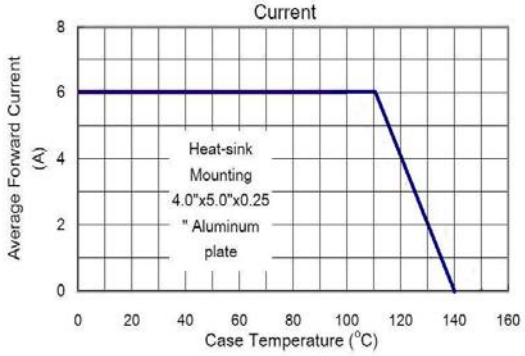


FIG 2 Maximum Forward Surge Current per Leg

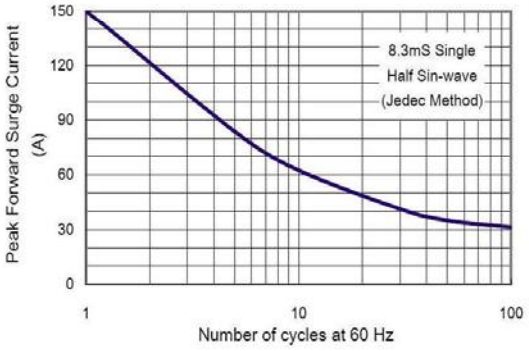


FIG 3 Typical Reverse Characteristics per Leg

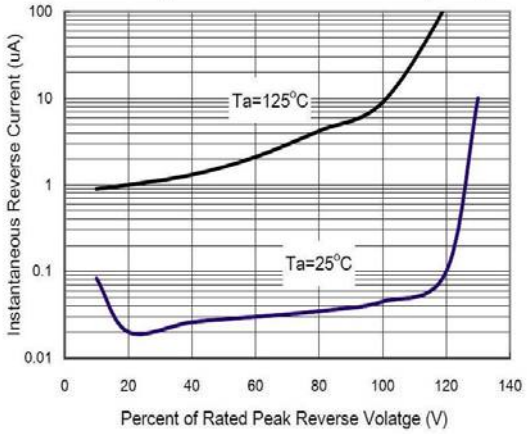


FIG 4 Typical Forward Characteristics per Leg.

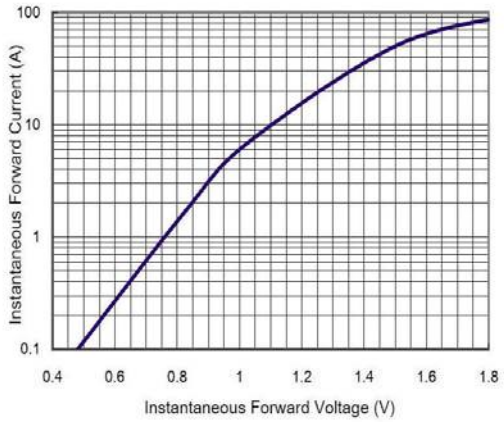


FIG 5 Typical Junction Capacitance