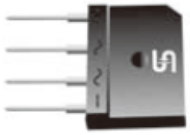
TAIWAN SEMICONDUCTOR

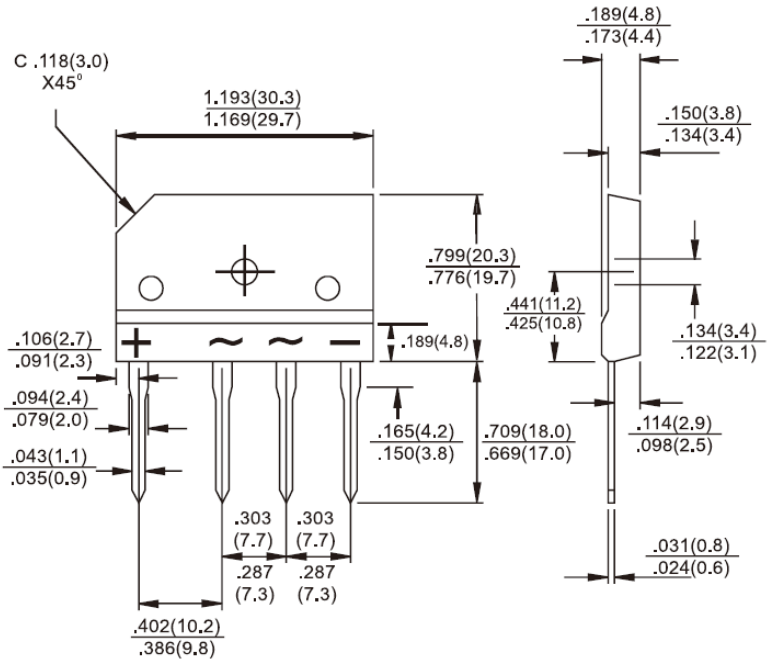
TS15P01G - TS15P07G

Single Phase 15.0 AMPS. Glass Passivated Bridge Rectifiers

RoHS COMPLIANCE



TS-6P



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 240A
- ✧ High temperature soldering guaranteed: 260 ℃ / 10 seconds at 5 lbs., (2.3kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-202, Method 208
- ✧ Weight: 7.15 grams
- ✧ Mounting torque : 8.17 in. lbs. Max.

Dimensions in inches and (millimeters)

Marking Diagram

TS15P0XG	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

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	TS15P 01G	TS15P 02G	TS15P 03G	TS15P 04G	TS15P 05G	TS15P 06G	TS15P 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℃	$I_{F(AV)}$	15							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC mrthod)	I_{FSM}	240							A
Rating of fusing (t < 8.3mS)	I^2t	239							A^2S
Maximum Instantaneous Forward Voltage (Note 1) @ 7.5A @ 15A	V_F	1.0 1.1							V
Maximum DC Reverse Current @ T_A=25 ℃ at Rated DC Blocking Voltage @T_A=125 ℃	I_R	10 500							uA uA
Typical Junction Capacitance Per Leg (Note 2)	Cj	90							pF
Typical Thermal Resistance	$R_{\theta JC}$	0.8							$^OC/W$
Operating Temperature Range	T_J	- 55 to + 150							^OC
Storage Temperature Range	T_{STG}	- 55 to + 150							^OC

Note 1 : Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2 : Measured at 1MHz and applied Reverse bias of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES (TS15P01G THRU TS15P07G)

FIG. 1 MAXIMUM SURGE CURRENT PER LEG

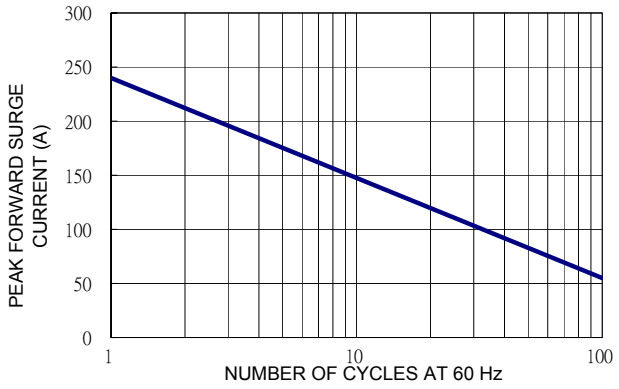


FIG. 2 TYPICAL FORWARD CHARACTERISRICS PER LEG

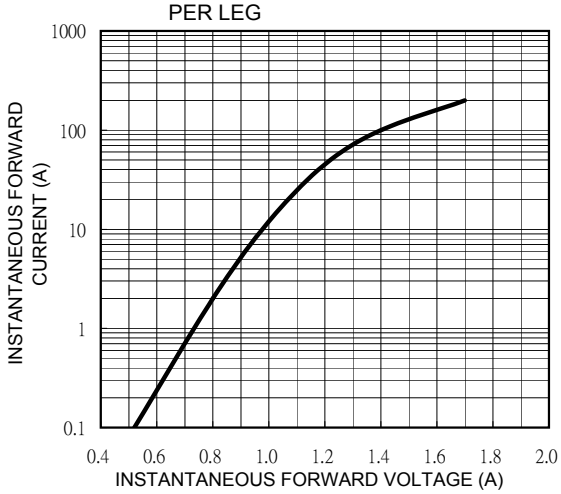


FIG.3 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

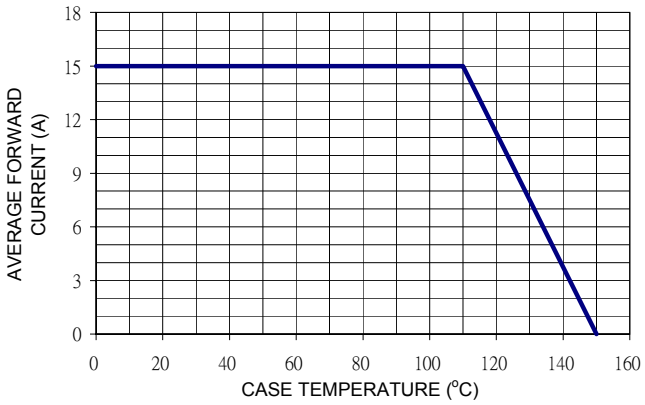


FIG. 5 TYPICAL REVERSE CHARACTERISTICS PER LEG

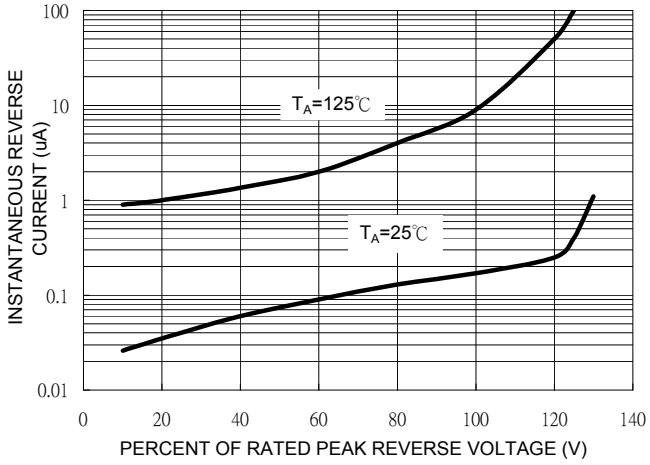


FIG. 4 TYPICAL JUNCTION CAPACITANCE