



**TAIWAN
SEMICONDUCTOR**



**RoHS
COMPLIANCE**

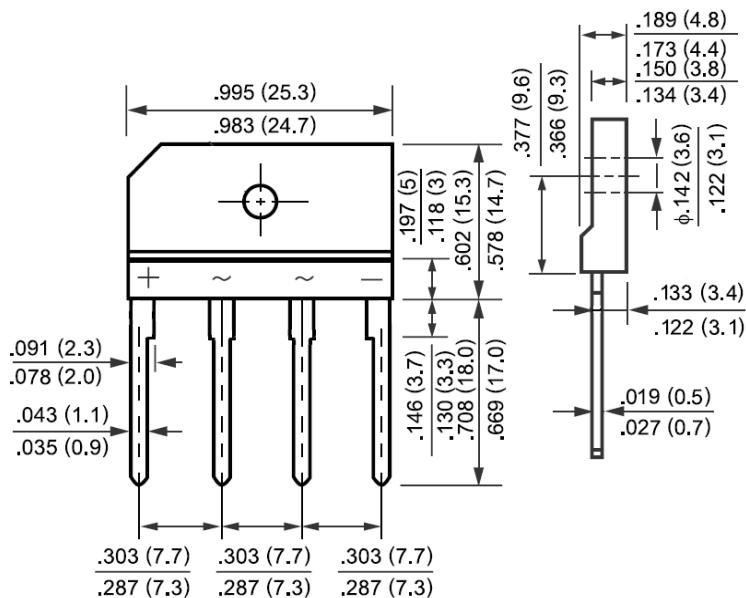


Features

- ◊ 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 150 amperes peak
- ◊ High case dielectric strength of 2000V_{RMS}
- ◊ Isolated voltage from case to lead over 2500 volts
- ◊ High temperature soldering guaranteed: 260°C/10 seconds / 0.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension
- ◊ Green compound with suffix "G" on packing code & prefix "G" on datecode

TS10K40 - TS10K100
Single Phase 10.0 AMPS. Glass Passivated Bridge Rectifiers

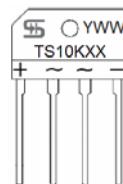
TS4K



Mechanical Data

- ◊ Case: Molded plastic
- ◊ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ◊ Weight: 4 grams
- ◊ Mounting Torque : 5 in-lbs Max.

Dimensions in inches and (millimeters)



Marking Diagram

TS10KXX	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

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	TS10K40	TS10K60	TS10K80	TS10K100	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	400	600	800	1000	V
Maximum Average Forward Rectified Current	I _{F(AV)}			10		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 ² T			93		A ² S
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A @10 A	V _F			1.0 1.1		V
Maximum Reverse Current @ Rated VR T _A =25 °C T _A =125 °C	I _R			10 500		uA
Typical Thermal Resistance	R _{θJC}			2.3		°C/W
Operating Temperature Range	T _J			- 55 to + 150		°C
Storage Temperature Range	T _{STG}			- 55 to + 150		°C

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

RATINGS AND CHARACTERISTIC CURVES (TS10K40 THRU TS10K100)

FIG.1 FORWARD CURRENT DERATING CURVE

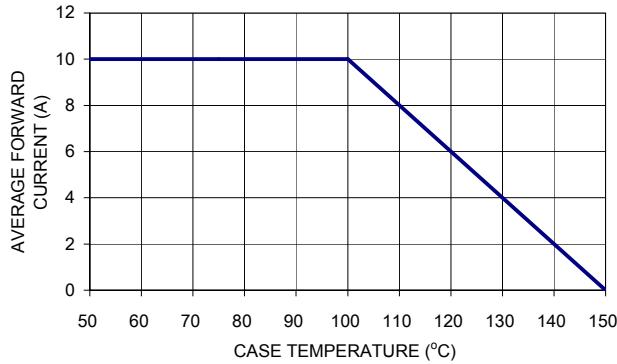


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

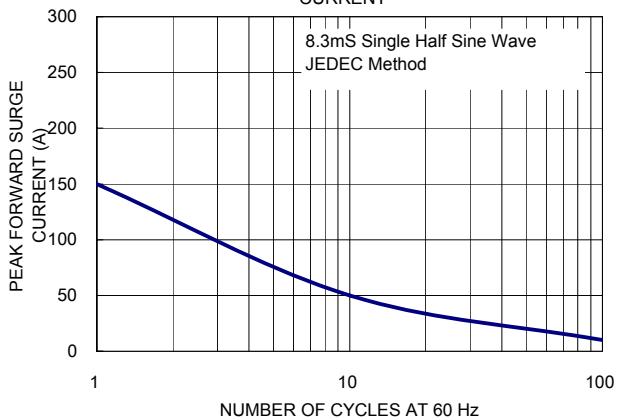


FIG. 4 TYPICAL JUNCTION CAPACITANCE

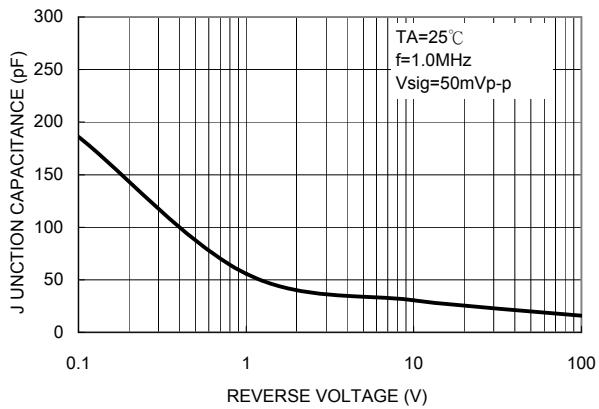


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

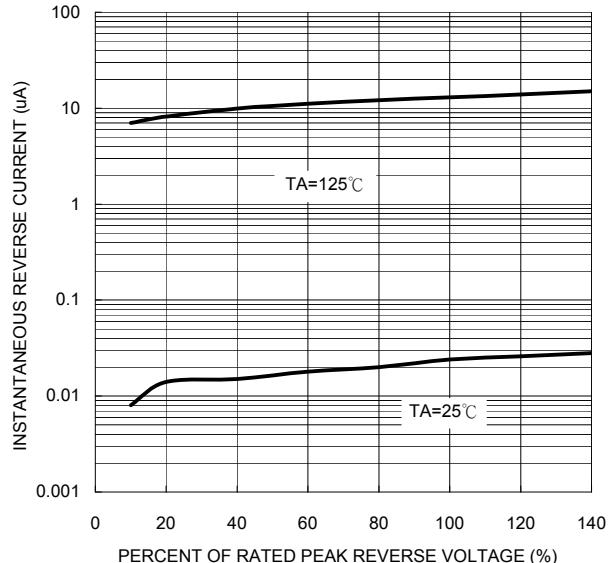


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

