

Single Phase Glass Passivated Silicon Bridge Rectifier

V_{RRM} = 600 V - 1000 V
I_O = 25 A

Features

- Integrally molded heat sink provides low thermal resistance for maximum heat dissipation
- High surge current capability
- Universal 3-way terminals: snap on, wire-around, or P.C board mounting
- High temperature soldering guaranteed: 260°C/ 10 seconds at 5 lbs (2.3 kg) tension
- Not ESD Sensitive

Mechanical Data

Case: Molded plastic with heat sink integrally mounted in the bridge encapsulation

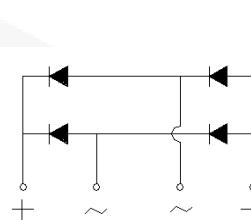
Terminals: Either nickel plated 0.25". Faston lugs or copper leads 0.040" diameter.

Polarity: Polarity symbols marked on the body

Mounting position: Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface

Weight: 15 grams or 0.53 ounces

Mounting torque: 20 inch-lbs max



GBPC-T/W Package



Maximum ratings at T_c = 25 °C, unless otherwise specified (GBPCXXXXT uses GBPC-T package while GBPCXXXXW uses GBPC-W package)

Parameter	Symbol	Conditions	GBPC2506T/W	GBPC2508T/W	GBPC2510T/W	Unit
Repetitive peak reverse voltage	V _{RRM}		600	800	1000	V
RMS reverse voltage	V _{RMS}		420	560	700	V
DC blocking voltage	V _{DC}		600	800	1000	V
Operating temperature	T _j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T _{stg}		-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics at T_c = 25 °C, unless otherwise specified

Single phase, half sine wave, 60 Hz, resistive or inductive load

For capacitive load derate current by 20%

Parameter	Symbol	Conditions	GBPC2506T/W	GBPC2508T/W	GBPC2510T/W	Unit
Maximum average forward rectified current	I _O	T _c = 50 °C	25.0	25.0	25.0	A
Peak forward surge current	I _{FSM}	single sine-wave	300	300	300	A
Maximum instantaneous forward voltage drop per leg	V _F	I _F = 12.5 A	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	T _a = 25 °C T _a = 125 °C	5 500	5 500	5 500	μA
Rating for fusing	I ² t	1 ms < t _m < 8.3 ms	375	375	375	A ² sec
RMS isolation voltage from case to leads	V _{ISO}		2500	2500	2500	V
Typical junction capacitance	C _j		300	300	300	pF
Typical thermal resistance	R _{θJC}		1.9	1.9	1.9	°C/W

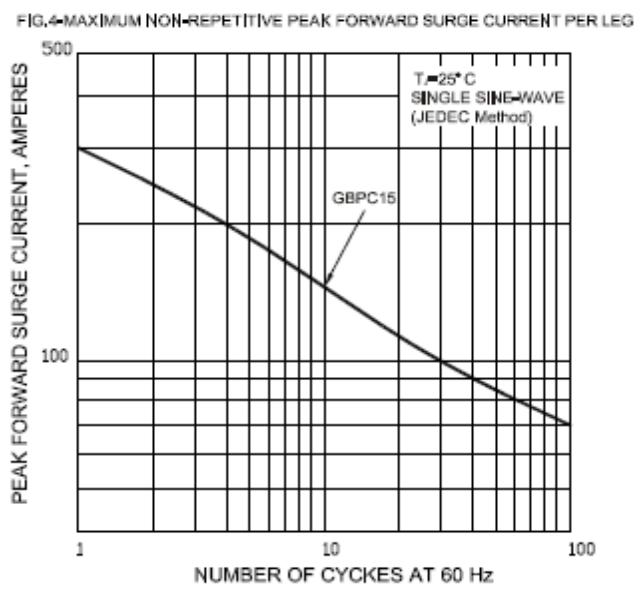
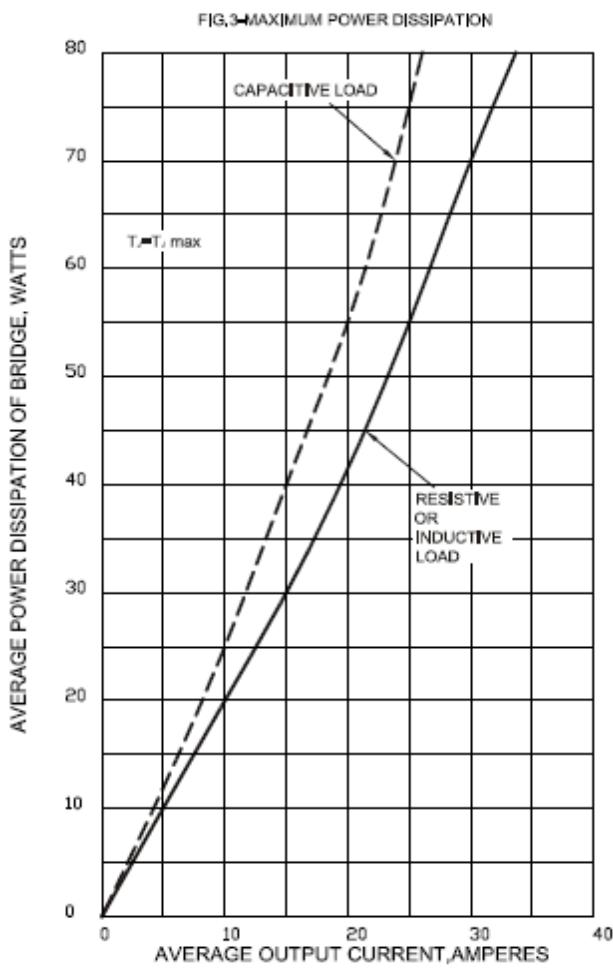
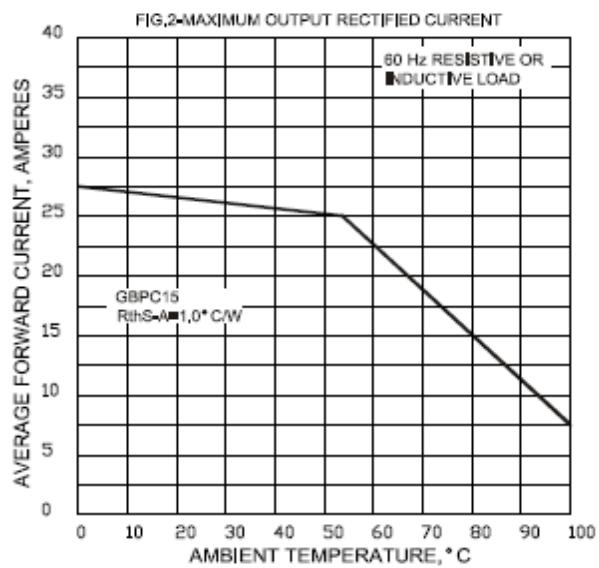
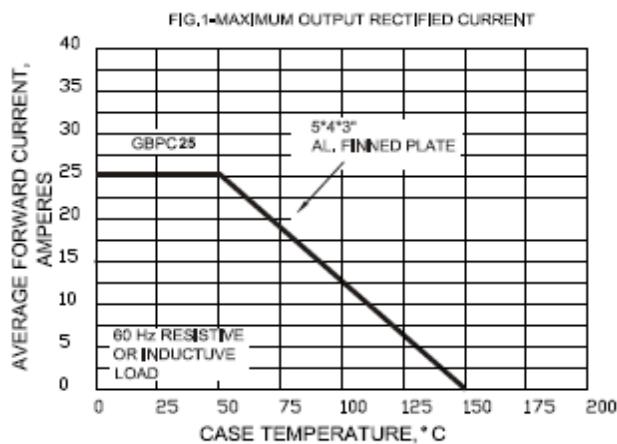


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

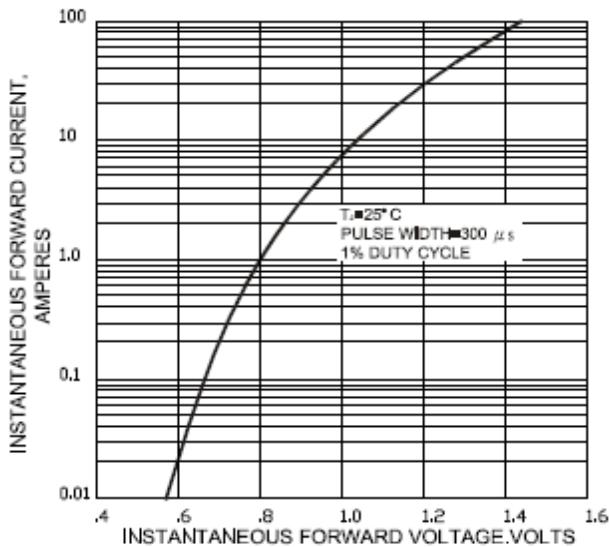


FIG.6-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

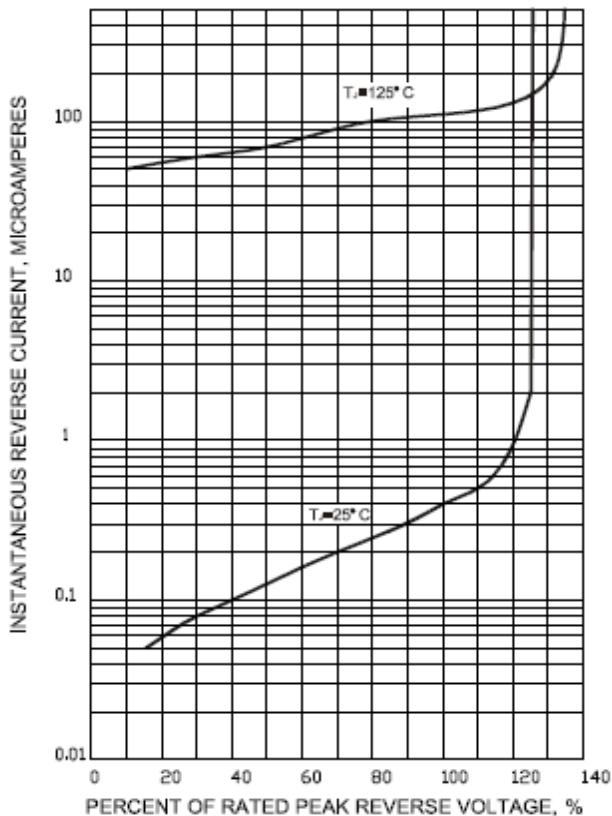


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

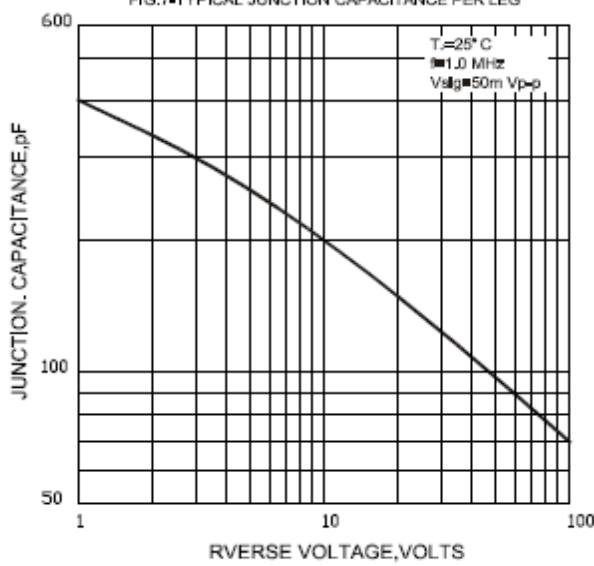
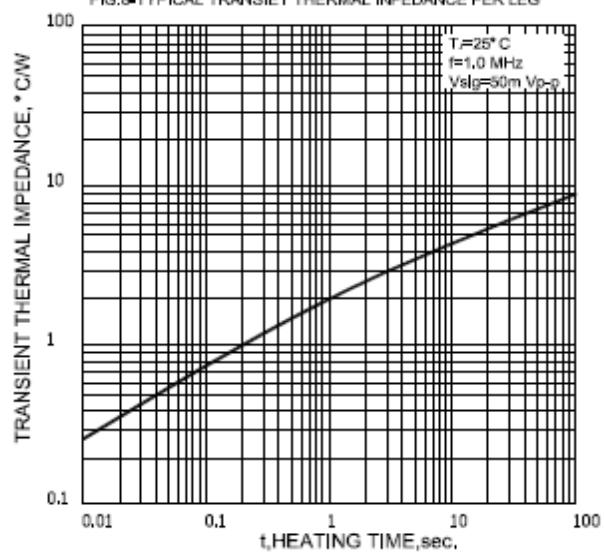
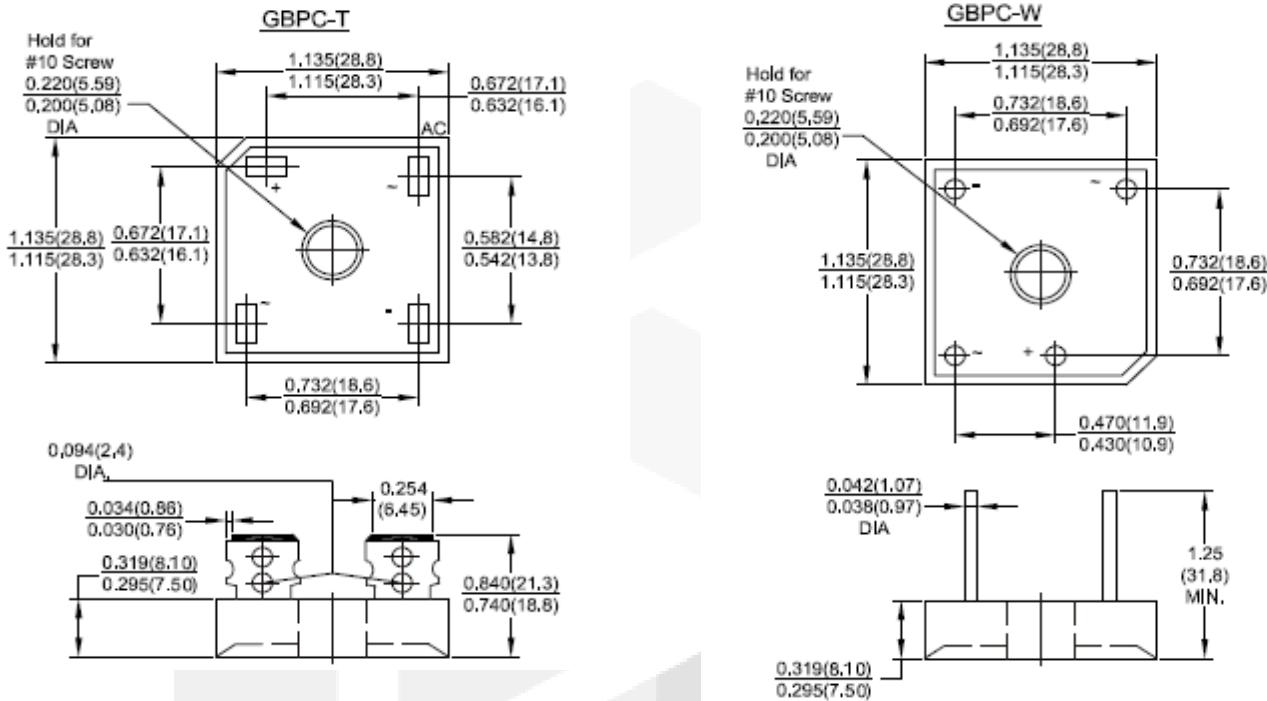


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

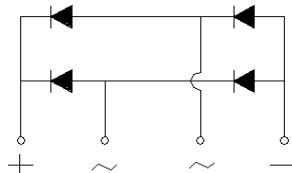


Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)



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