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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 400\text{ V}$

$I_O = 50\text{ A}$

### Features

- Integrally molded heat sink provides low thermal resistance for maximum heat dissipation
- High surge current capability
- Void-free junction soldering by using vacuum soldering
- 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.

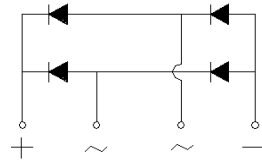
Polarity: Polarity symbols marked on the body

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

Weight: 19 grams or 0.67 ounces

Mounting torque: 20 inch-lbs max

GBPC-T/W Package



**Maximum ratings at  $T_c = 25\text{ }^\circ\text{C}$ , unless otherwise specified (GBPCXXXXT uses GBPC-T package while GBPCXXXXW uses GBPC-W package)**

Parameter	Symbol	Conditions	GBPC50005T/W	GBPC5001T/W	GBPC5002T/W	GBPC5004T/W	Unit
Repetitive peak reverse voltage	$V_{RRM}$		50	100	200	400	V
RMS reverse voltage	$V_{RMS}$		35	70	140	280	V
DC blocking voltage	$V_{DC}$		50	100	200	400	V
Operating temperature	$T_j$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

### Electrical characteristics at $T_c = 25\text{ }^\circ\text{C}$ , unless otherwise specified

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

For capacitive load derate current by 20%

Parameter	Symbol	Conditions	GBPC50005T/W	GBPC5001T/W	GBPC5002T/W	GBPC5004T/W	Unit
Maximum average forward rectified current	$I_O$	$T_c = 50\text{ }^\circ\text{C}$	50.0	50.0	50.0	50.0	A
Peak forward surge current	$I_{FSM}$	single sine-wave	400	400	400	400	A
Maximum instantaneous forward voltage drop per leg	$V_F$	$I_F = 25\text{ A}$	1.2	1.2	1.2	1.2	V
Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	$T_a = 25\text{ }^\circ\text{C}$	5	5	5	5	$\mu\text{A}$
		$T_a = 125\text{ }^\circ\text{C}$	500	500	500	500	
Rating for fusing	$I^2t$	$1\text{ ms} < t_m < 8.3\text{ ms}$	1200	1200	1200	1200	$\text{A}^2\text{sec}$
RMS isolation voltage from case to leads	$V_{ISO}$		2500	2500	2500	2500	V
Typical junction capacitance	$C_j$		360	360	360	360	pF
Typical thermal resistance	$R_{\theta JC}$		1.2	1.2	1.2	1.2	$^\circ\text{C/W}$

FIG.1-MAXIMUM OUTPUT RECTIFIED CURRENT

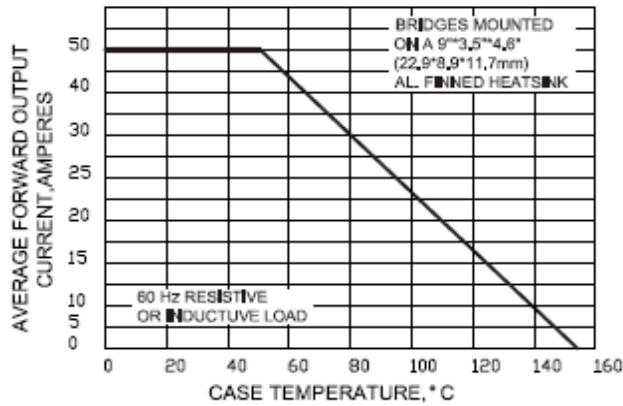


FIG.2-MAXIMUM OUTPUT RECTIFIED CURRENT

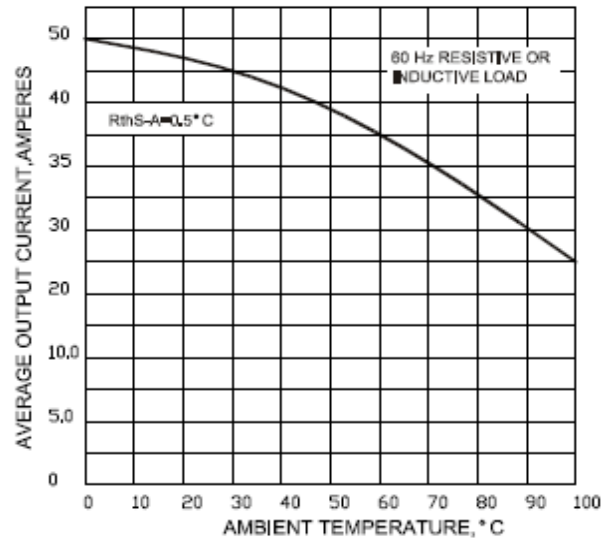


FIG.3-MAXIMUM POWER DISSIPATION

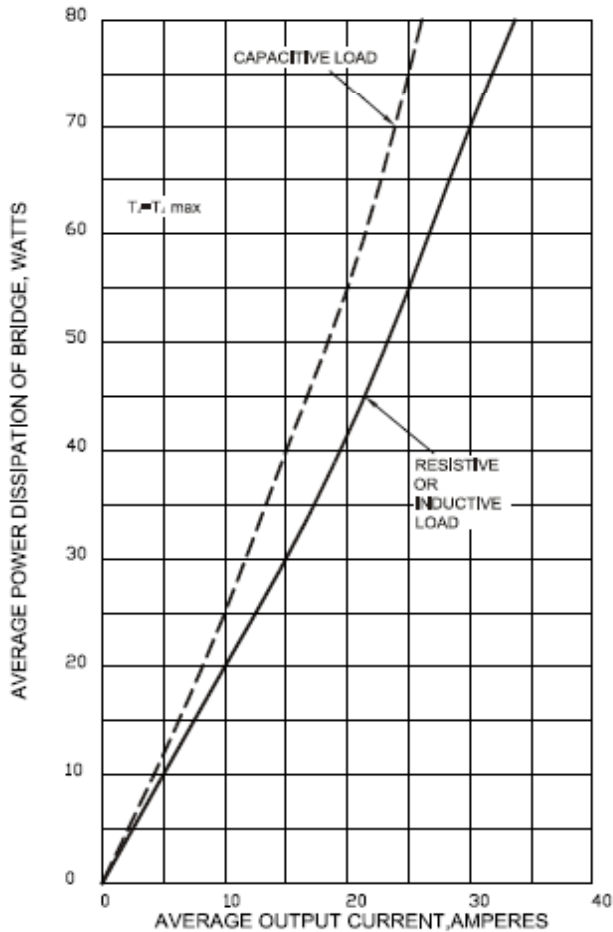


FIG.4-MAXIMUM NON-REPEITIVE PEAK FORWARD

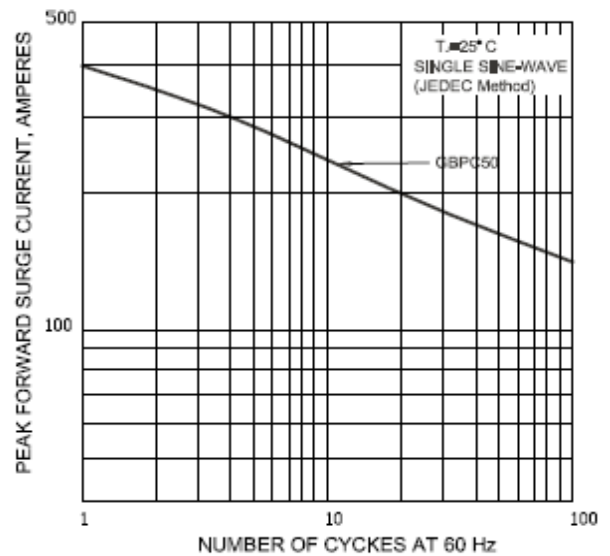


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

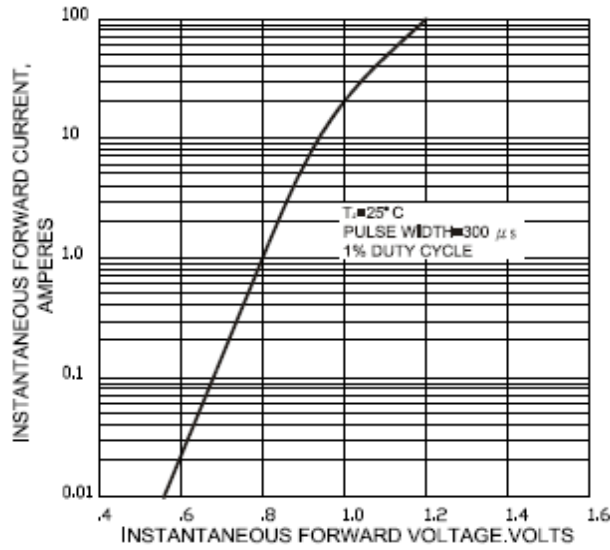


FIG.6-TYPICAL REVERSE CHARACTERISTICS

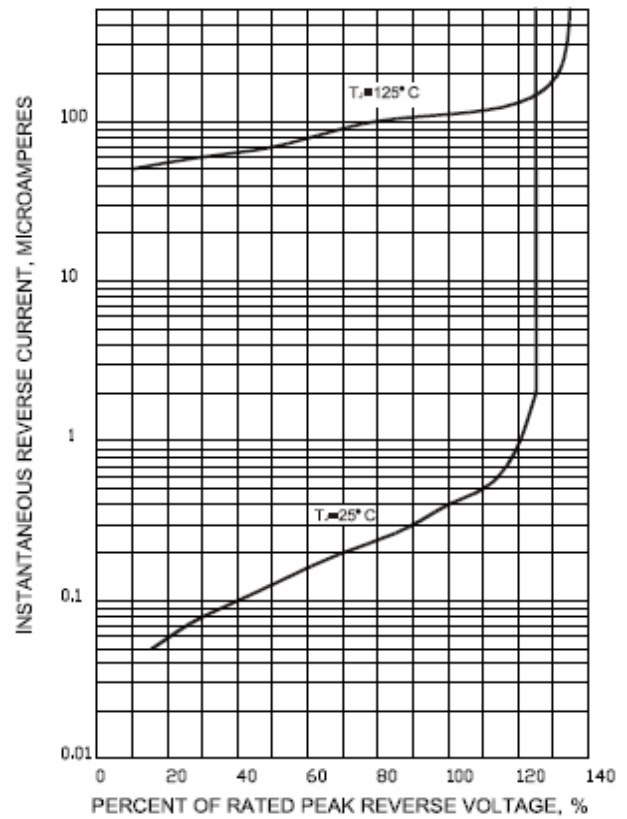


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

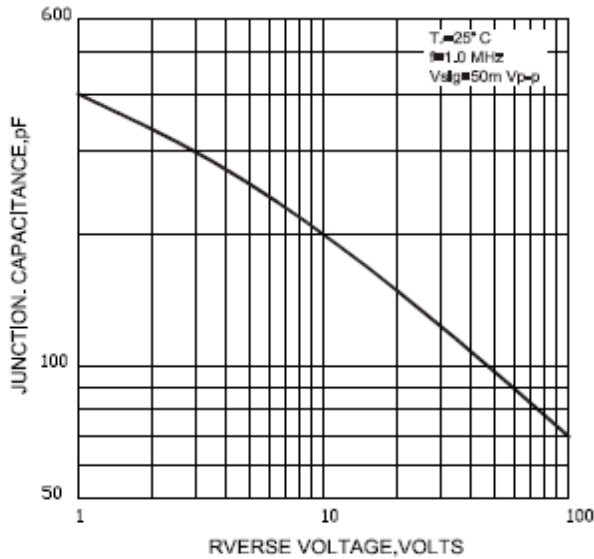
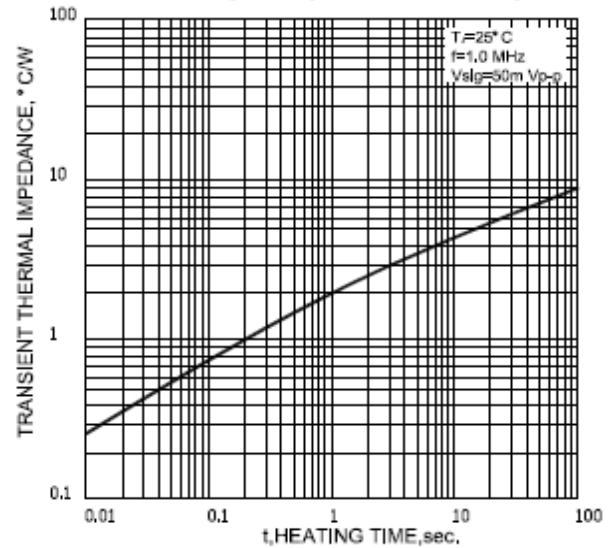
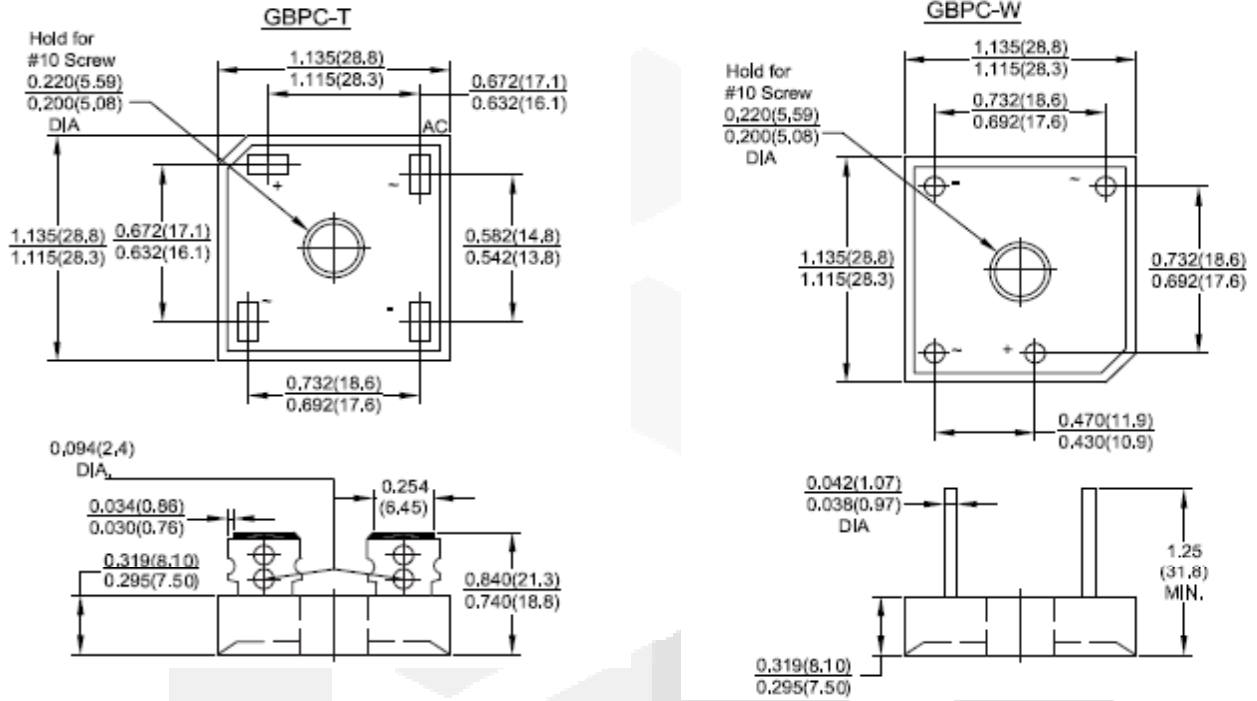


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)

