

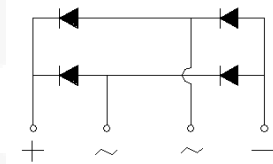
Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 600\text{ V} - 1000\text{ V}$
 $I_O = 35\text{ A}$

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

GBPC-T/W Package



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

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

Parameter	Symbol	Conditions	GBPC3506T/W	GBPC3508T/W	GBPC3510T/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	$^\circ\text{C}$
Storage temperature	T_{stg}		-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	GBPC3506T/W	GBPC3508T/W	GBPC3510T/W	Unit
Maximum average forward rectified current	I_O	$T_c = 50\text{ }^\circ\text{C}$	35.0	35.0	35.0	A
Peak forward surge current	I_{FSM}	single sine-wave	400	400	400	A
Maximum instantaneous forward voltage drop per leg	V_F	$I_F = 17.5\text{ A}$	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	$T_a = 25\text{ }^\circ\text{C}$	5	5	5	μA
		$T_a = 125\text{ }^\circ\text{C}$	500	500	500	
Rating for fusing	I^2t	$1\text{ ms} < t_m < 8.3\text{ ms}$	660	660	660	A^2sec
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	$R_{\theta JC}$		1.4	1.4	1.4	$^\circ\text{C/W}$

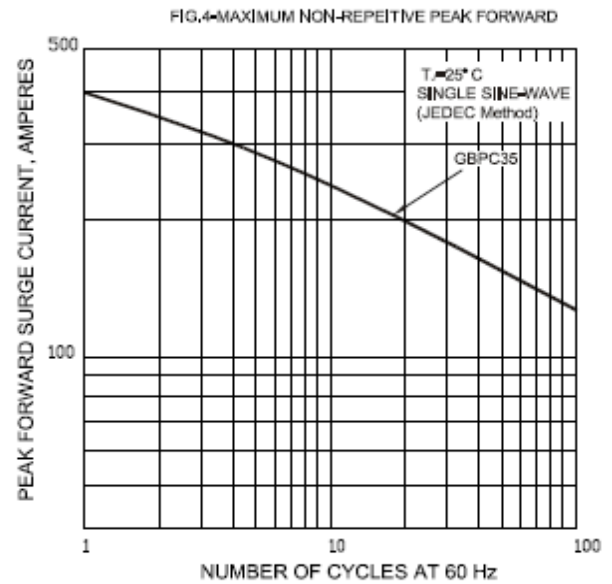
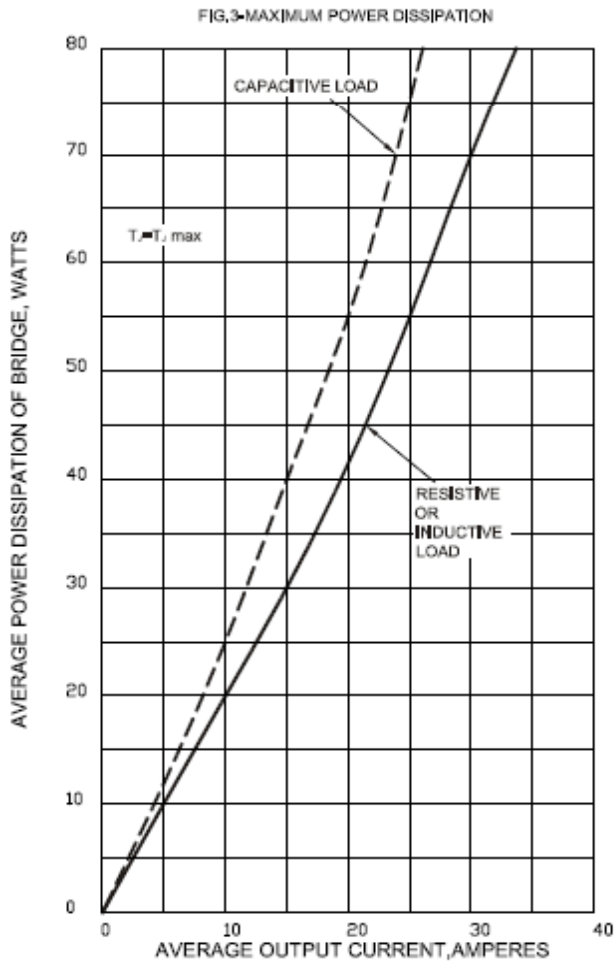
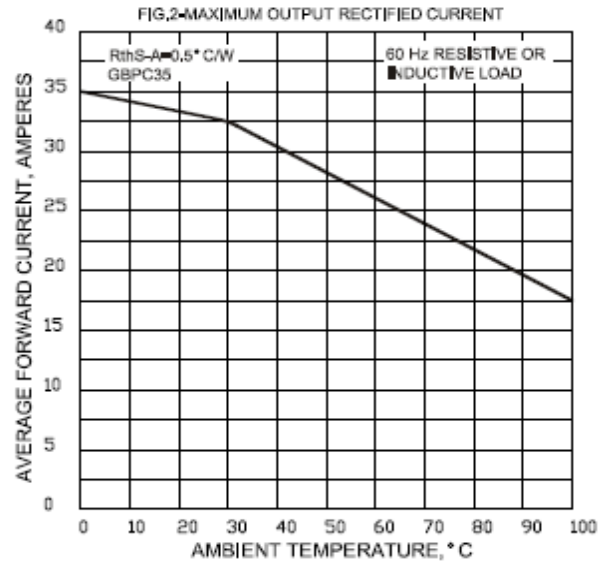
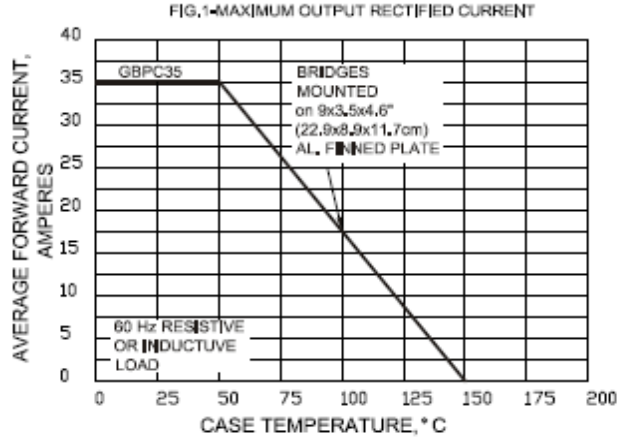


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

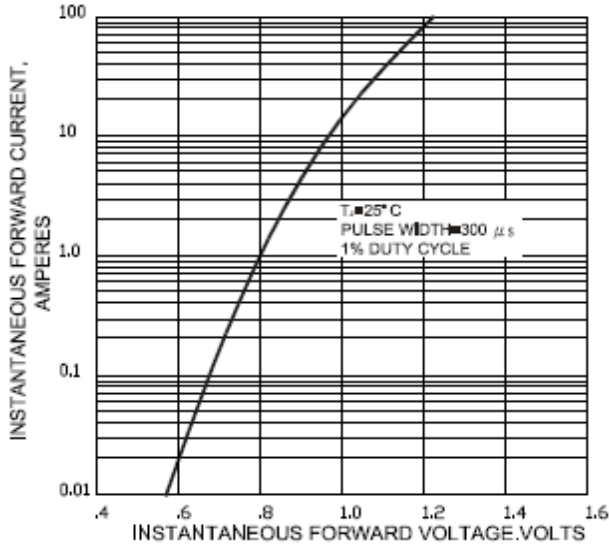


FIG.6-TYPICAL REVERSE CHARACTERISTICS

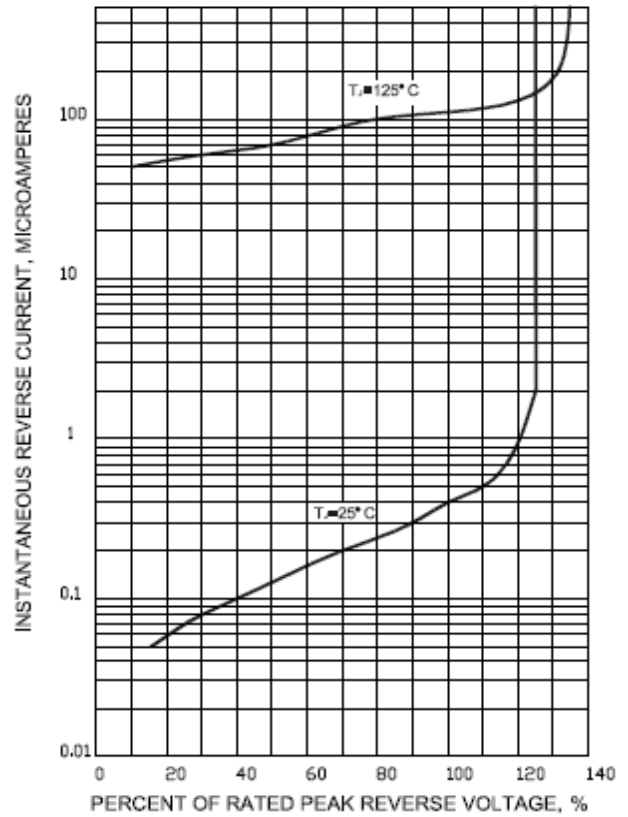


FIG.7-TYPICAL JUNCTION CAPACITANCE PER LEG

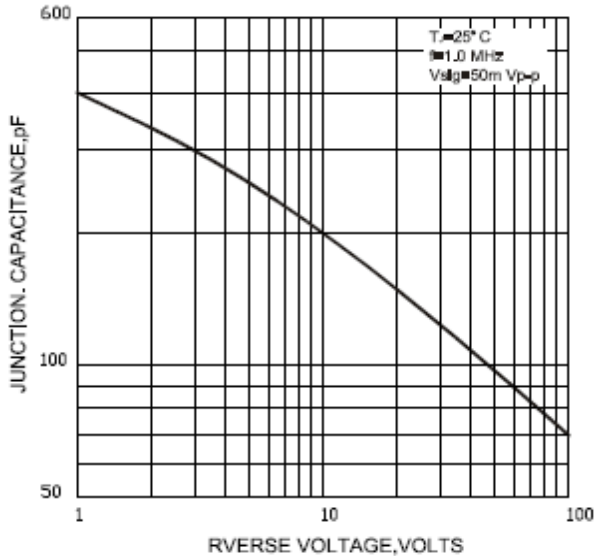
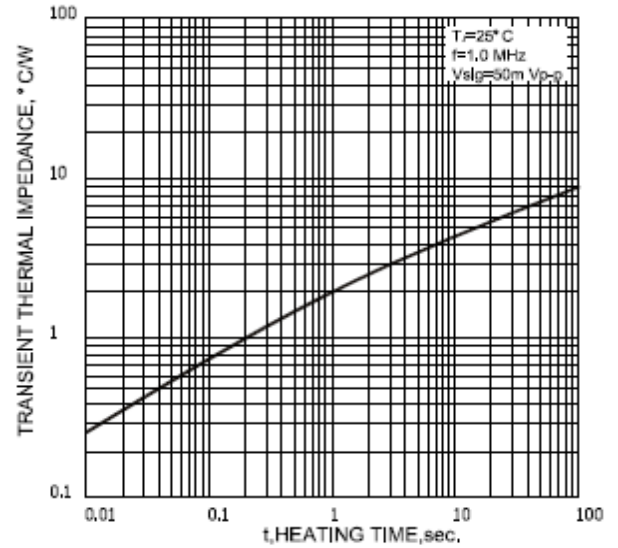
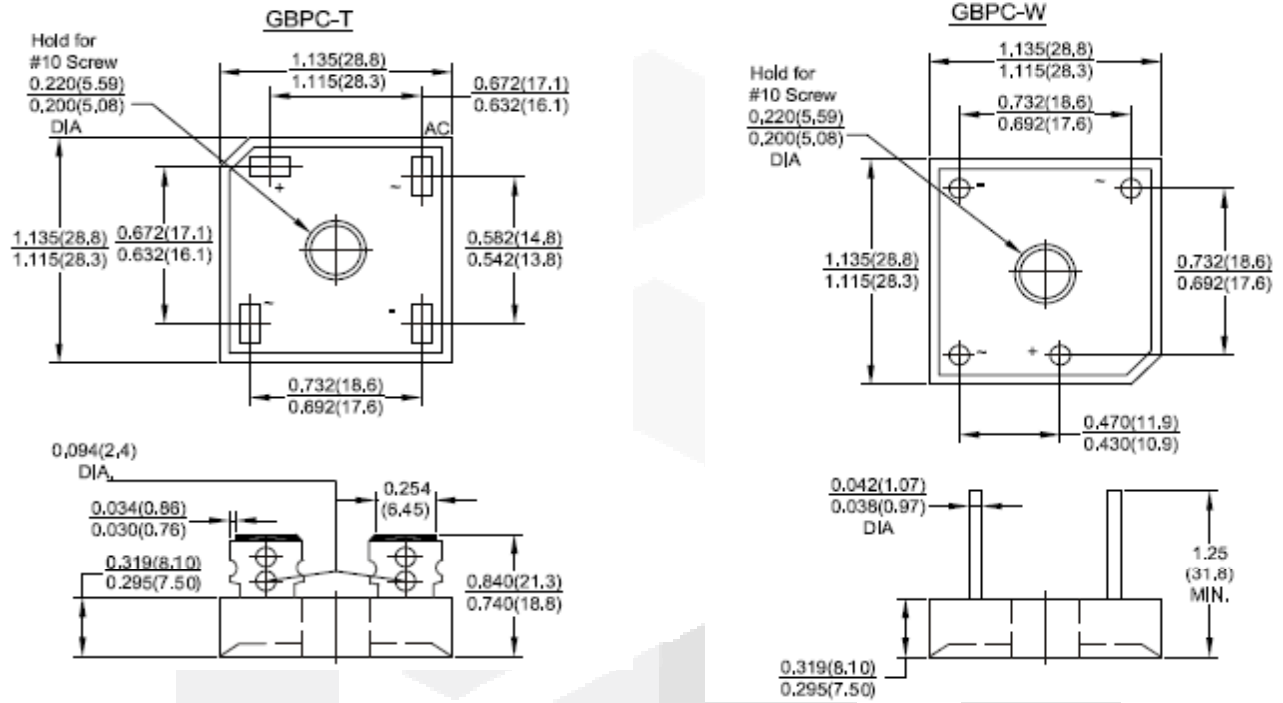


FIG.8-TYPICAL TRANSIENT THERMAL IMPEDANCE

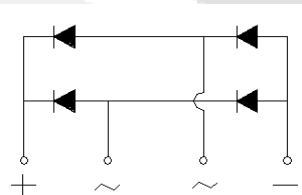


Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[GeneSiC Semiconductor:](#)

[GBPC35010W](#) [GBPC35010T](#) [GBPC3508W](#) [GBPC3508T](#) [GBPC3506T](#) [GBPC3506W](#) [GBPC3510T](#) [GBPC3510W](#)