

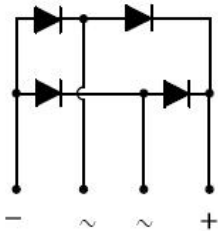
**GBPC50005(W) THRU GBPC5010(W)
SINGLE PHASE 50 AMP GLASS PASSIVATED BRIDGE RECTIFIER**



Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: GBPC/GBPC-W, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings: @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type number	Symbol	GBPC 50005(W)	GBPC 5001(W)	GBPC 5002(W)	GBPC 5004(W)	GBPC 5006(W)	GBPC 5008(W)	GBPC 5010(W)	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ T _A =55°C	I _o	50							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	500							A

Electrical Characteristics:

Type number	Symbol	GBPC 50005(W)	GBPC 5001(W)	GBPC 5002(W)	GBPC 5004(W)	GBPC 5006(W)	GBPC 5008(W)	GBPC 5010(W)	Units
Forward Voltage per element @ $I_F=25.0A$	V_F	1.1							V
Peak Reverse Current @ $T_A=25^{\circ}C$ At Rated DC Blocking Voltage @ $T_A=125^{\circ}C$	I_R	10 500							μA
Typical Junction Capacitance (Note 2)	C_J	300							pF

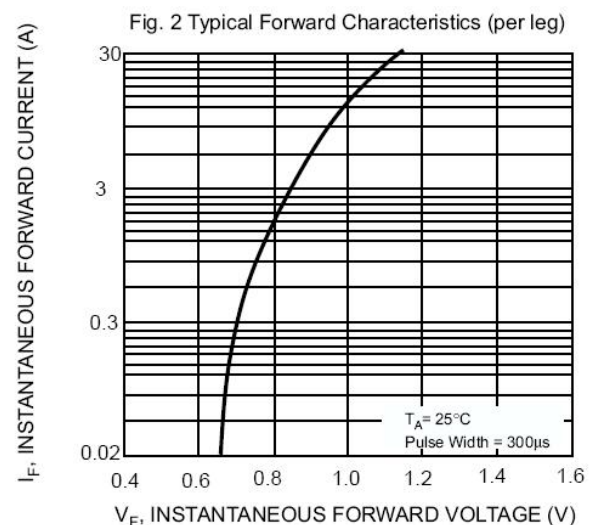
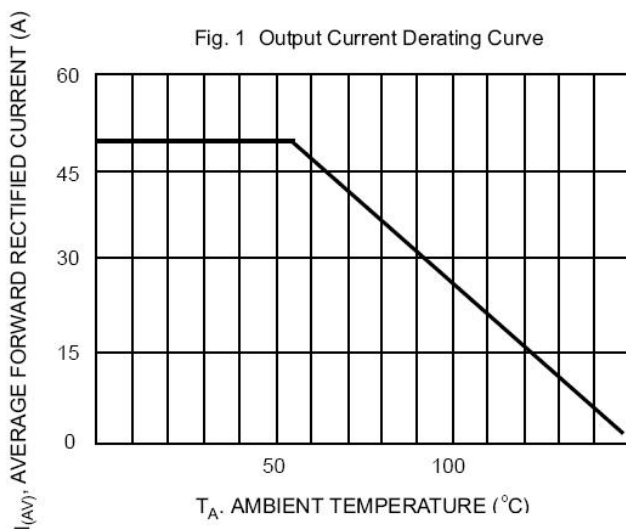
* Pulse width < 300 μs , duty cycle < 2%

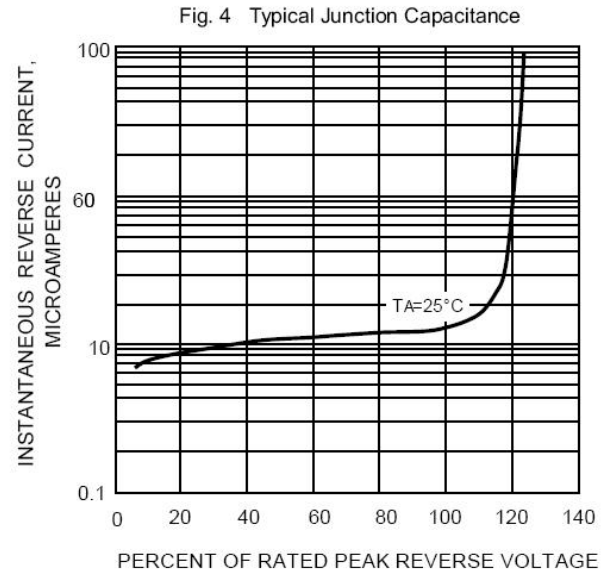
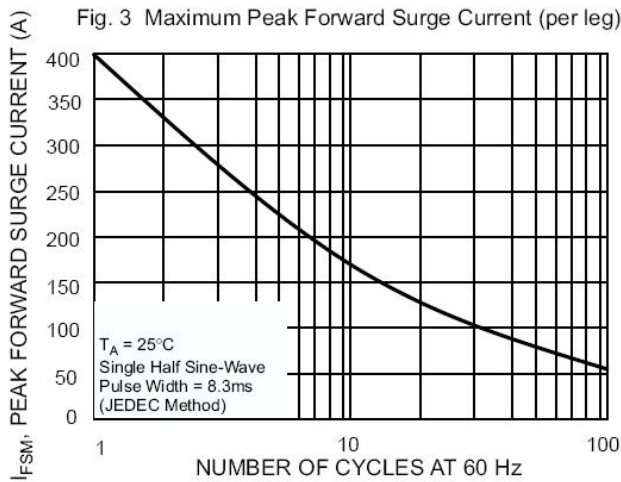
Thermal-Mechanical Specifications:

Type number	Symbol	GBPC 50005(W)	GBPC 5001(W)	GBPC 5002(W)	GBPC 5004(W)	GBPC 5006(W)	GBPC 5008(W)	GBPC 5010(W)	Units
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	2.2							
Junction Temperature	T_J	-55 to +150							$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}C$

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Ratings and Characteristics Curves



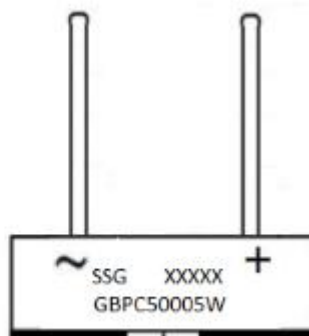
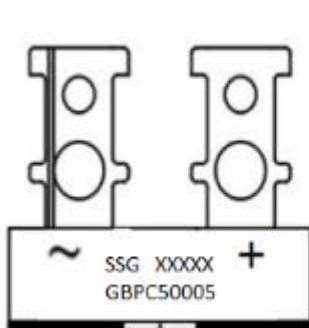


Ordering Information

Device	Package	Plating	Shipping
GBPC50005-GBPC5010	GBPC(Pb-Free)	Pure Sn	50pcs / box
GBPC50005W-GBPC5010W	GBPC-W(Pb-Free)	Pure Sn	50pcs / box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

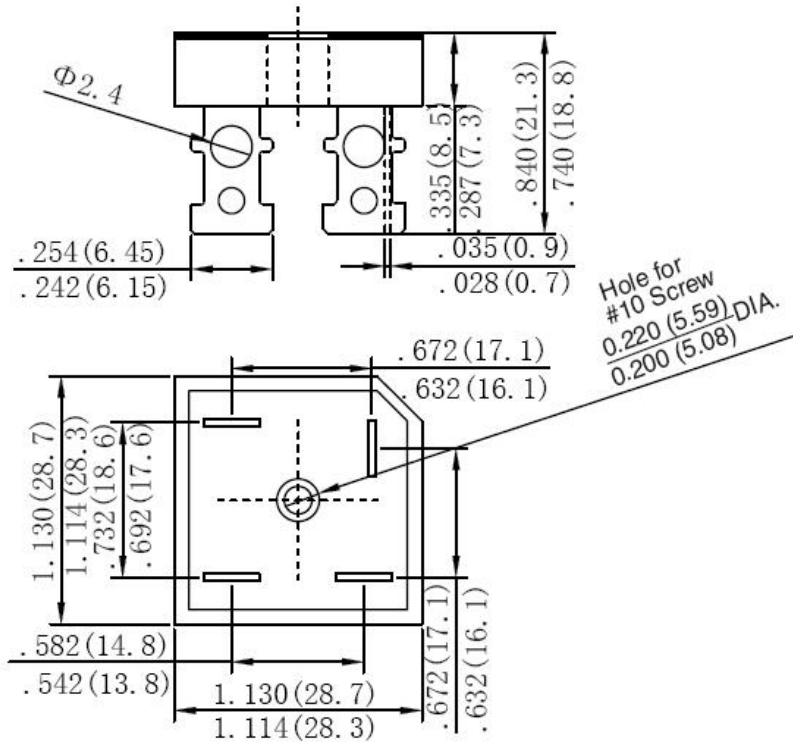


Where XXXXX is YYWWL

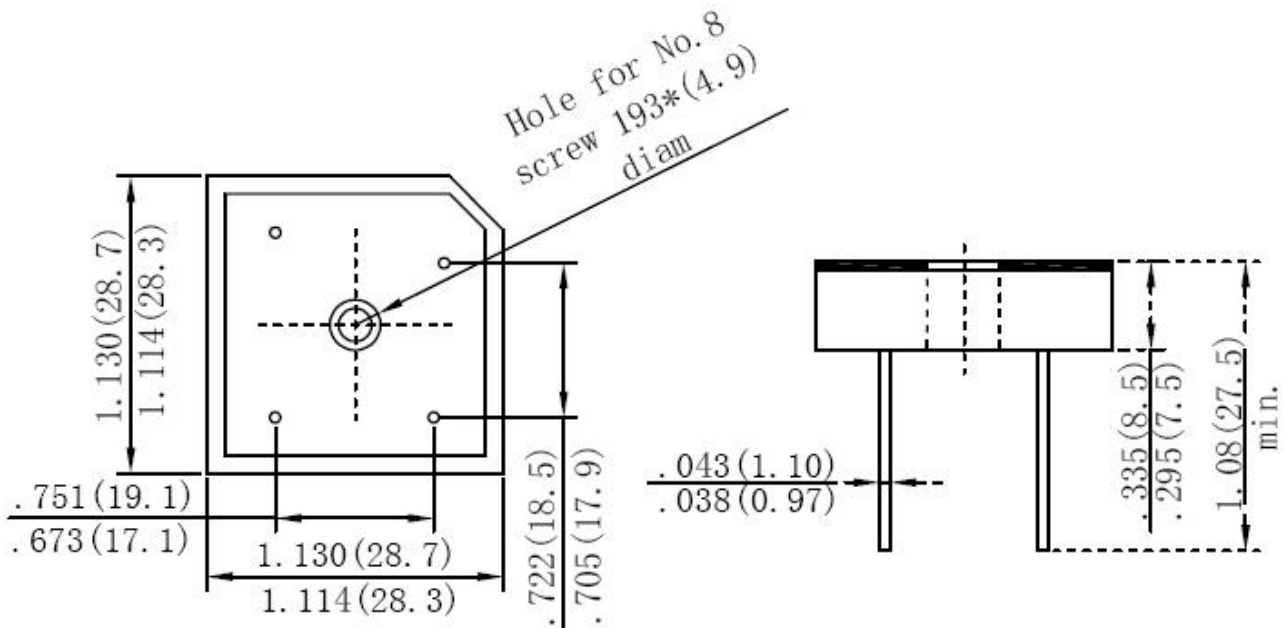
SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number
 GBPC50005/W = Type Number

Cautions: Molding resin
 Epoxy resin UL:94V-0

Mechanical Dimensions GBPC (Inches/Millimeters)



Mechanical Dimensions GBPC-W (Inches/Millimeters)



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