


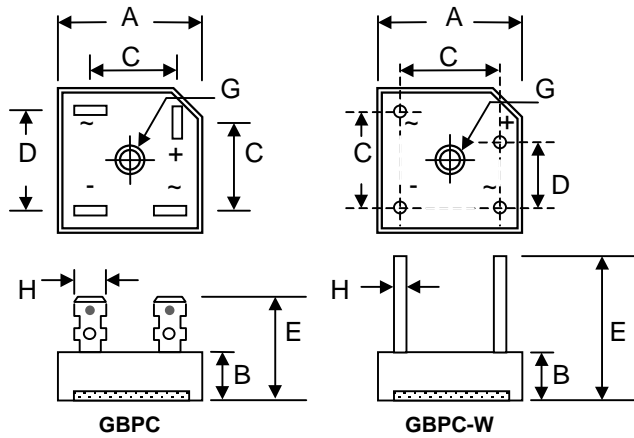
25A GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
-  Recognized File # E157705

Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (GBPC); 18 grams (GBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



Dim	GBPC Low Profile / Standard		GBPC-W Low Profile / Standard	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	19.08 / 22.86	21.58 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø

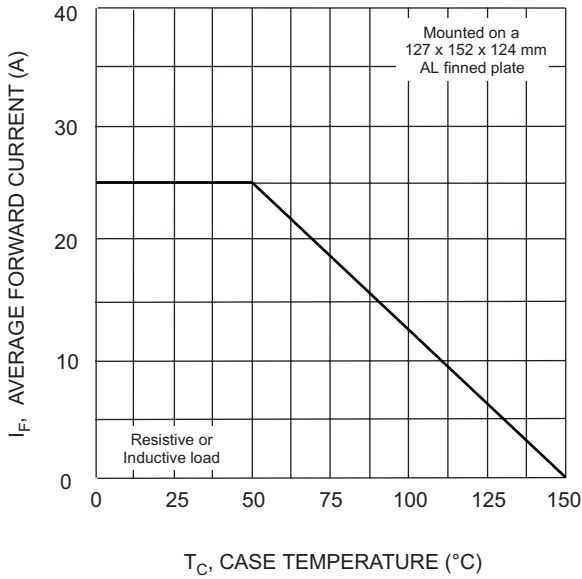
All Dimension in mm

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

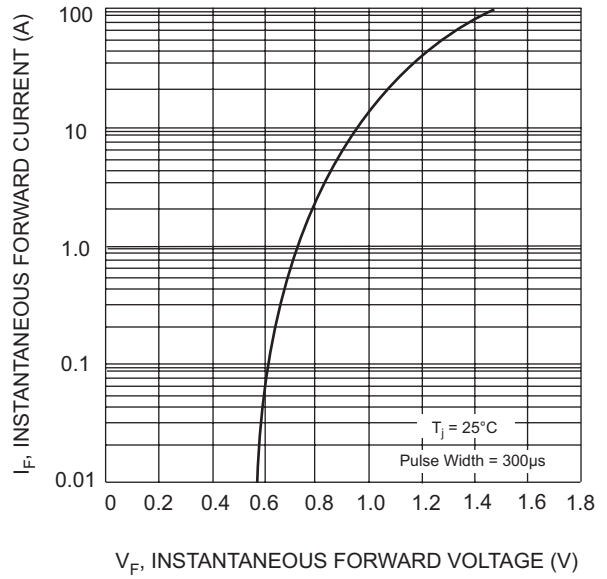
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	GBPC25										Unit	
		00	01	02	04	06	08	10	12	14	16		
Peak Repetitive Reverse Voltage	V_{RRM}												V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	1200	1400	1600		V
DC Blocking Voltage	V_R												V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	840	980	1120		V
Average Rectified Output Current @ $T_C = 50^\circ\text{C}$	I_O	25										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300										A	
Forward Voltage per leg @ $I_F = 12.5\text{A}$	V_{FM}	1.1										V	
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	I_{RM}	5.0 500										μA	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	375										A^2s	
Typical Junction Capacitance (Note 1)	C_j	300										pF	
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JC}$	1.9										$^\circ\text{C/W}$	
RMS Isolation Voltage from Case to Leads	V_{ISO}	2500										V	
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150										$^\circ\text{C}$	

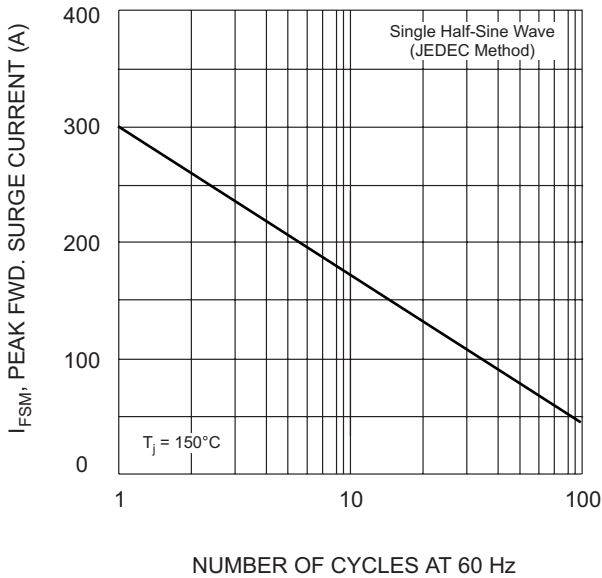
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on 127 x 152 x 124mm Al. finned plate.



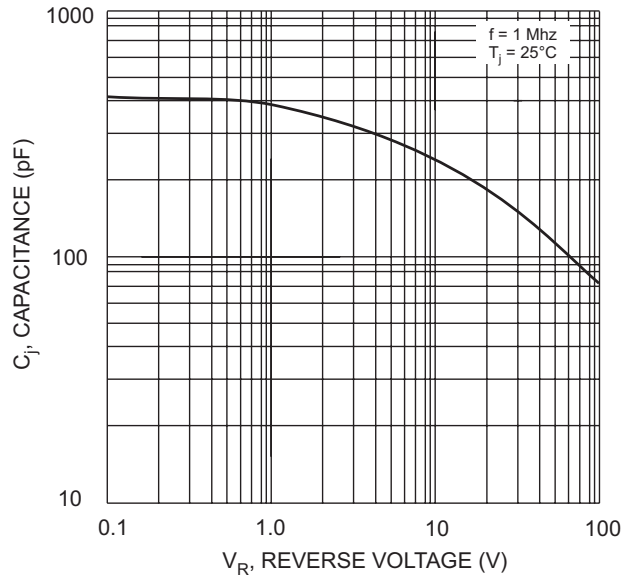
T_C , CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



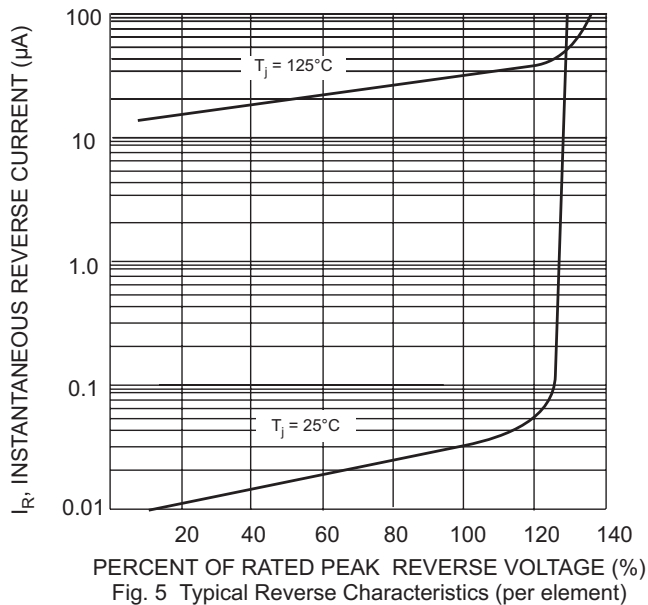
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Surge Current

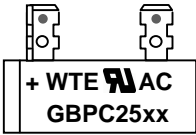
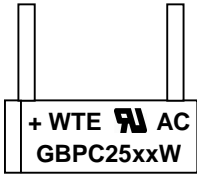


V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

GBPC  WTE = Manufacturer's Logo GBPC25xx = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body	GBPC-W  WTE = Manufacturer's Logo GBPC25xxW = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body
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PACKAGING INFORMATION

BULK					
Case Style	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
GBPC	195 x 195 x 40	50	405 x 205 x 240	500	12.0
GBPC-W	195 x 195 x 40	50	405 x 205 x 240	500	11.0

Note: 1. Paper box, white or brown color.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBPC2500	Square Bridge	50 Units/Box
GBPC2500W	Square Bridge	50 Units/Box
GBPC2501	Square Bridge	50 Units/Box
GBPC2501W	Square Bridge	50 Units/Box
GBPC2502	Square Bridge	50 Units/Box
GBPC2502W	Square Bridge	50 Units/Box
GBPC2504	Square Bridge	50 Units/Box
GBPC2504W	Square Bridge	50 Units/Box
GBPC2506	Square Bridge	50 Units/Box
GBPC2506W	Square Bridge	50 Units/Box
GBPC2508	Square Bridge	50 Units/Box
GBPC2508W	Square Bridge	50 Units/Box
GBPC2510	Square Bridge	50 Units/Box
GBPC2510W	Square Bridge	50 Units/Box
GBPC2512	Square Bridge	50 Units/Box
GBPC2512W	Square Bridge	50 Units/Box
GBPC2514	Square Bridge	50 Units/Box
GBPC2514W	Square Bridge	50 Units/Box
GBPC2516	Square Bridge	50 Units/Box
GBPC2516W	Square Bridge	50 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBPC2500-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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