

Bridge Rectifiers

Features

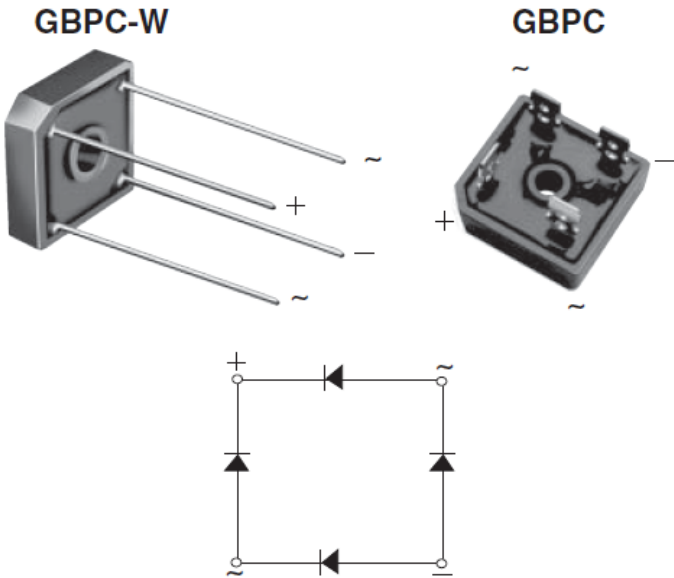
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** GBPC, GBPC-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
Suffix letter "W" added to indicate wire leads(e.g. GBPC2510W).



■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBPC25005	GBPC2501	GBPC2502	GBPC2504	GBPC2506	GBPC2508	GBPC2510
Device marking code			GBPC25005	GBPC2501	GBPC2502	GBPC2504	GBPC2506	GBPC2508	GBPC2510
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, $T_c=55^{\circ}\text{C}$	I_O	A	25						
Surge(Non-repetitive)Forward Current @60HZ Half- sine Wave, 1 cycle, $T_a=25^{\circ}\text{C}$	IFSM	A	400						
Current Squared Time @1ms $\leq t \leq 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	A^2S	660						
Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~ +150						
Junction Temperature	T_j	$^{\circ}\text{C}$	-55 ~ +150						
Dielectric Strength, Terminals to case, AC 1 minute	V_{dis}	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBPC25005	GBPC2501	GBPC2502	GBPC2504	GBPC2506	GBPC2508	GBPC2510
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=12.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	VRM=VRRM	10						

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBPC25005	GBPC2501	GBPC2502	GBPC2504	GBPC2506	GBPC2508	GBPC2510
Thermal Resistance Between junction and case, With heatsink	R _{θJ-C}	$^{\circ}\text{C}/\text{W}$	1.9						



GBPC25005(W) THRU GBPC2510(W)

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBPC25005~GBPC2510	A1	Approximate 13.8	50	50	500	Paper Box
GBPC25005W~GBPC2510W	A1	Approximate 13	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

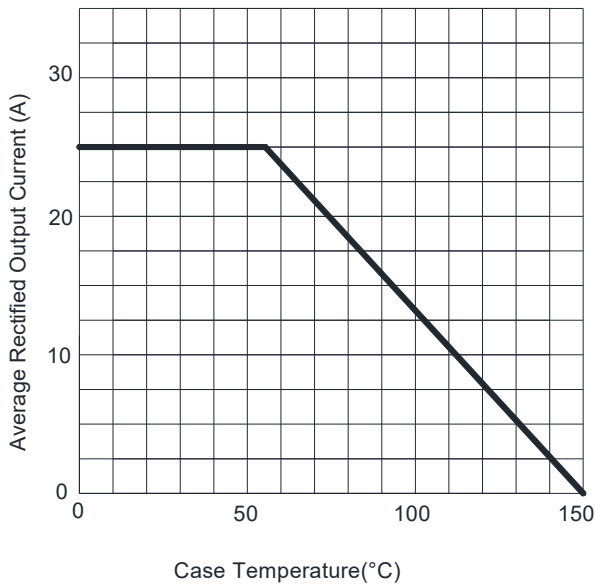


FIG2: Surge Forward Current Capability

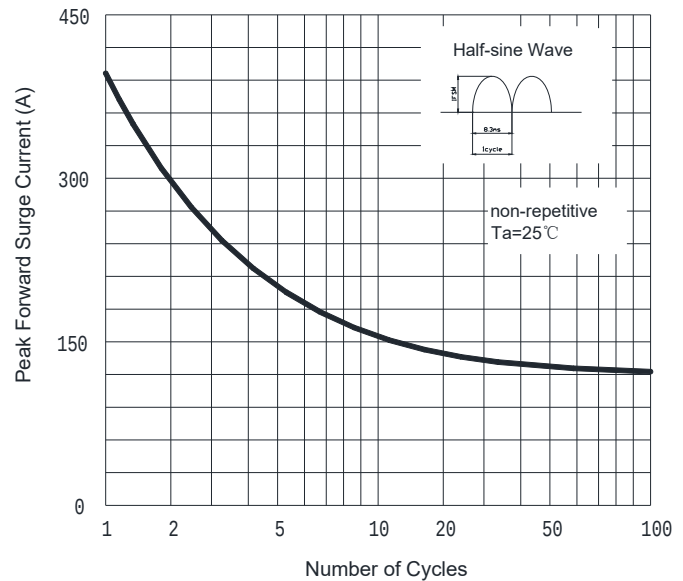


FIG3: Instantaneous Forward Voltage

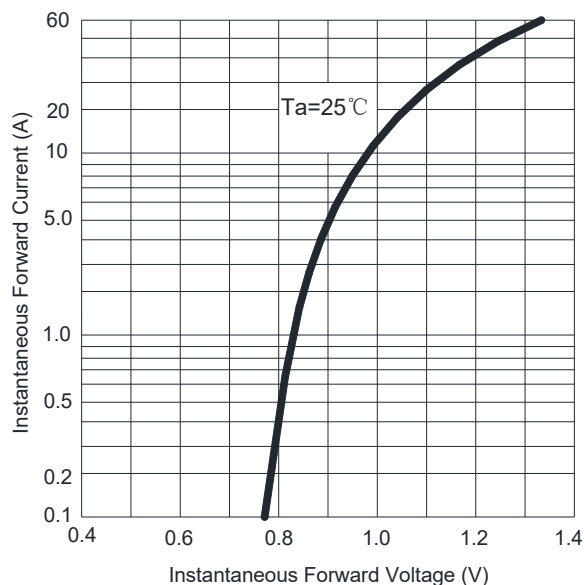
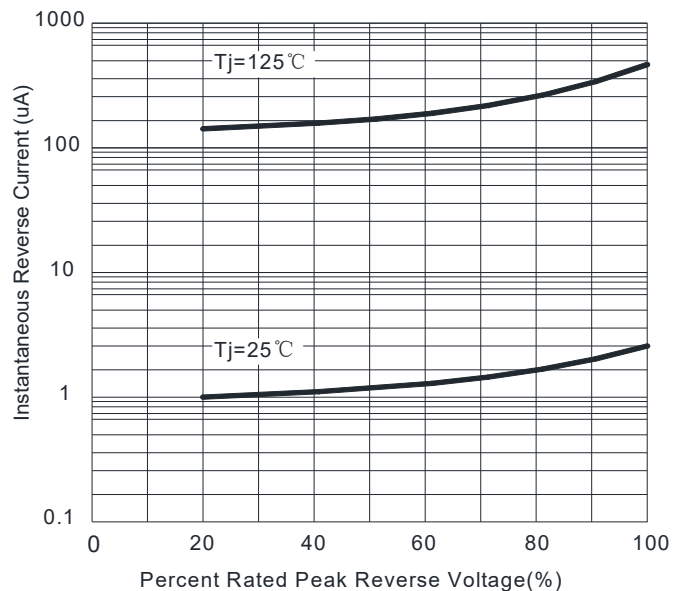


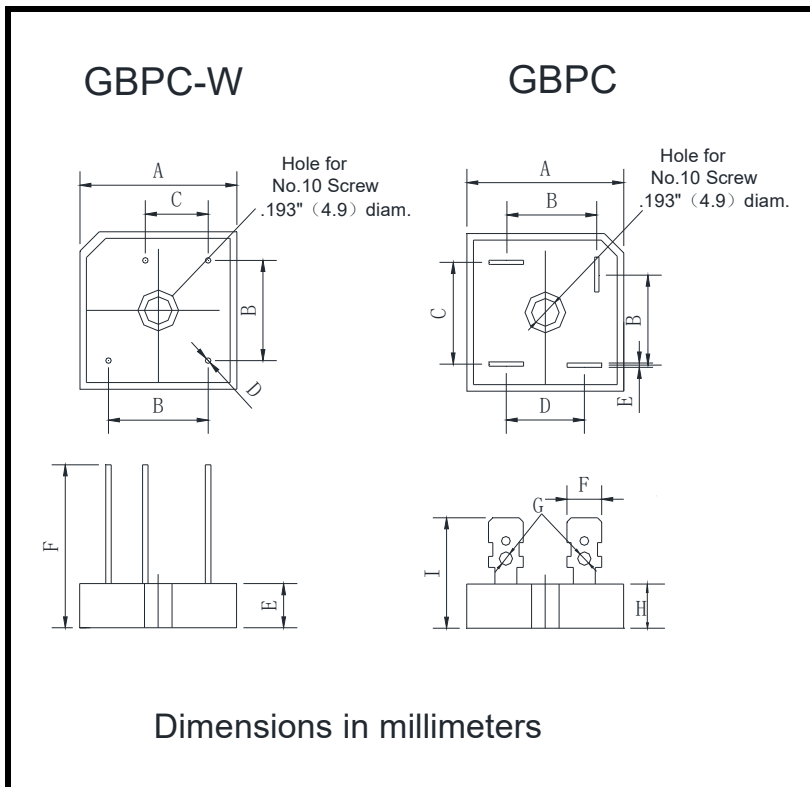
FIG4: Typical Reverse Characteristics





GBPC25005(W) THRU GBPC2510(W)

■ Outline Dimensions



GBPC-W		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	7.6	8.2
F	30	

GBPC		
Dim	Min	Max
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.2	2.6
H	7.6	8.2
I	19	/



GBPC25005(W) THRU GBPC2510(W)

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