

Bridge Rectifiers

Features

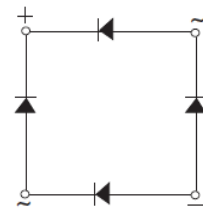
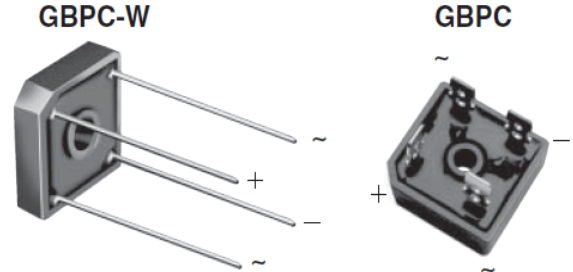
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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	GBPC25 005	GBPC25 01	GBPC25 02	GBPC25 04	GBPC25 06	GBPC25 08	GBPC25 10
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≤t≤8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	i^2t	A ² S	660						
Storage Temperature	T_{stg}	°C	-55 ~+150						
Junction Temperature	T_j	°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	GBPC25 005	GBPC25 01	GBPC25 02	GBPC25 04	GBPC25 06	GBPC25 08	GBPC25 10
Maximum instantaneous forward voltage drop per diode	VFM	V	$I_{FM}=12.5\text{A}$	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	μA	$V_{RM}=V_{RRM}$	10						

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

PARAMETER	SYMBOL	UNIT	GBPC25 005	GBPC25 01	GBPC25 02	GBPC25 04	GBPC25 06	GBPC25 08	GBPC25 10
Thermal Resistance Between junction and case, With heatsink	$R_{\theta J-C}$	°C/W	1.9						

■ **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:Io-Tc Curve

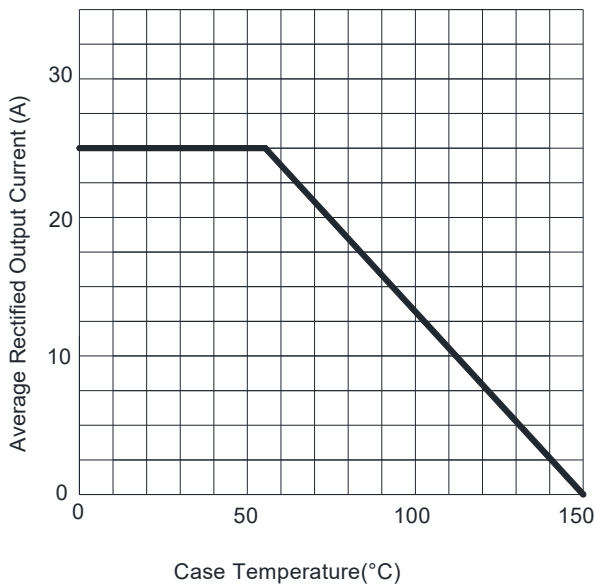


FIG2:Surge Forward Current Capability

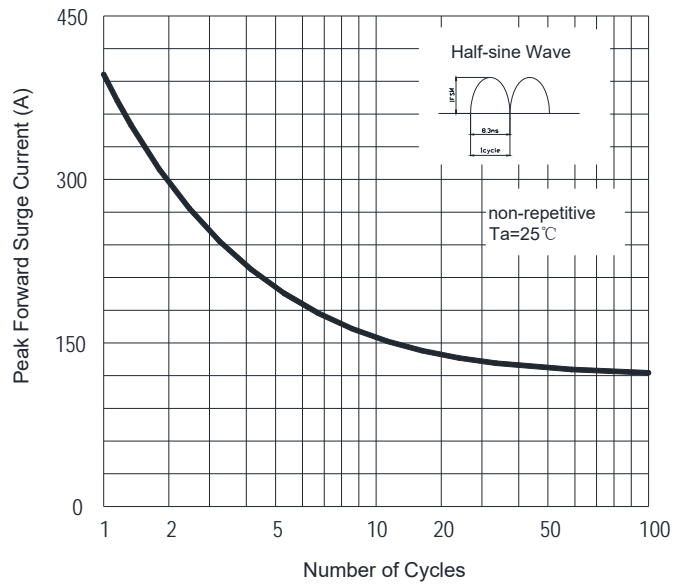


FIG3:Instantaneous Forward Voltage

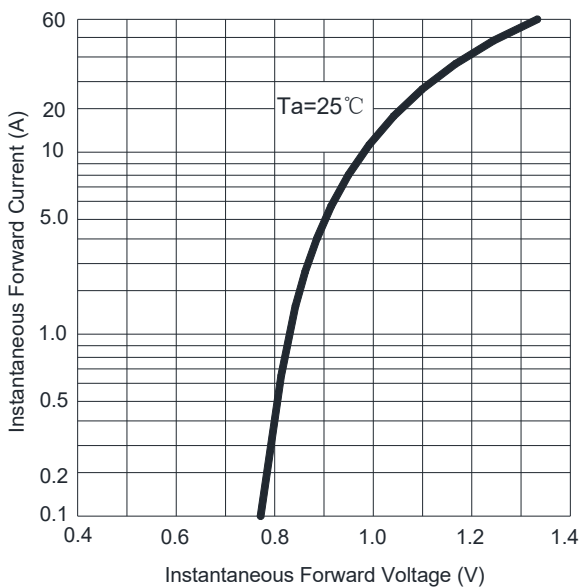
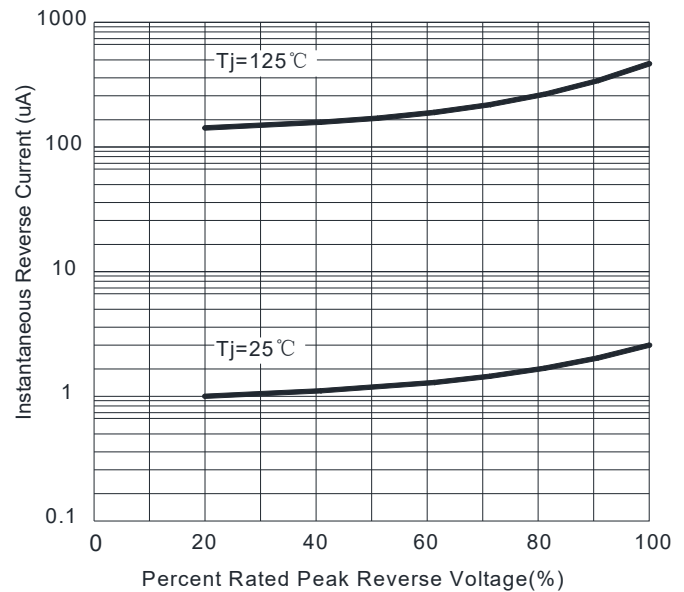
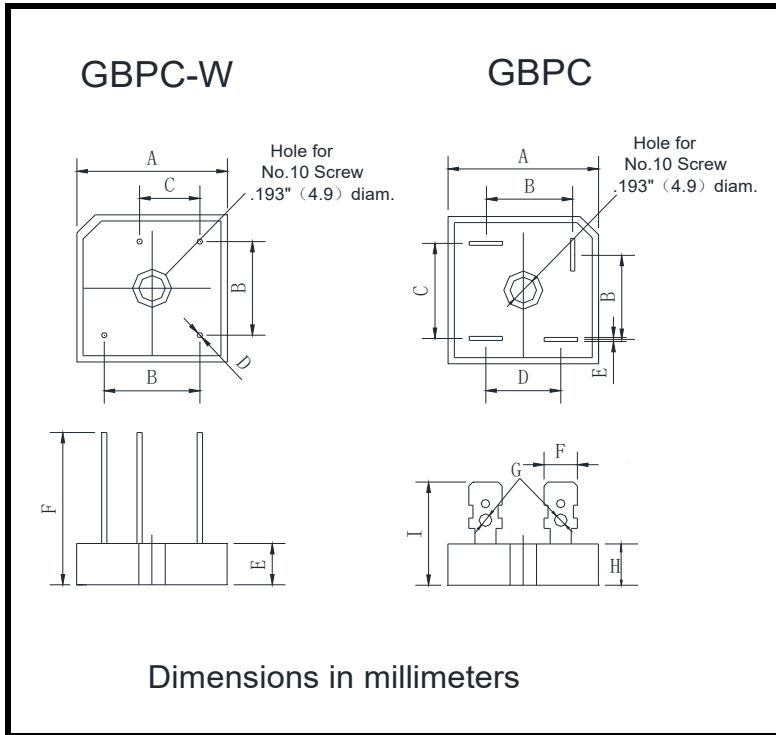


FIG4:Typical Reverse Characteristics



■ **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	/

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