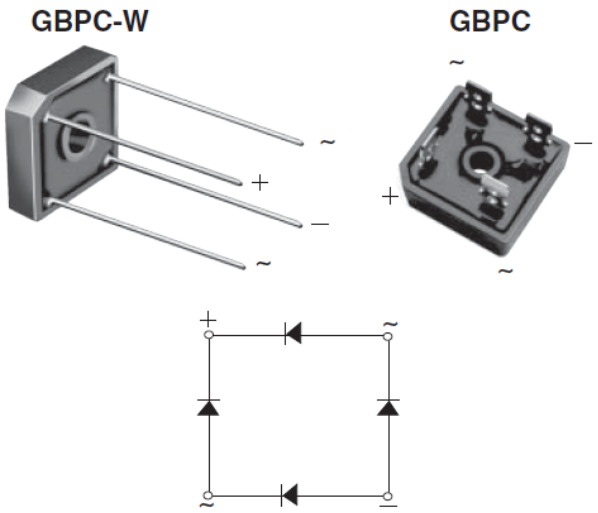
Bridge Rectifiers



Features

- UL recognition, file #E230084
- Universal 3-way terminals：snap-on，wire wrap-around，or PCB mounting
- Glass passivated chip junction
- 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. GBPC3510W).

■Maximum Ratings (T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Device marking code			GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T_C =55℃	I_O	A	50						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	500						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			1000						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	A^2S	1038						
Storage temperature	Tstg	℃	-55 ~ +150						
Junction temperature	Tj	℃	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V_{dis}	KV	2.5						
Mounting torque @Recommend torque：5kg·cm	Tor	kg·cm	8						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=25A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5						
			T_j =125℃	500						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	190						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	℃/W	0.95						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT (g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBPC50005 ~ GBPC5010	A1	Approximate 13.8	50	50	500	Paper Box
GBPC50005W ~ GBPC5010W	A1	Approximate 13	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:Io-Tc Curve

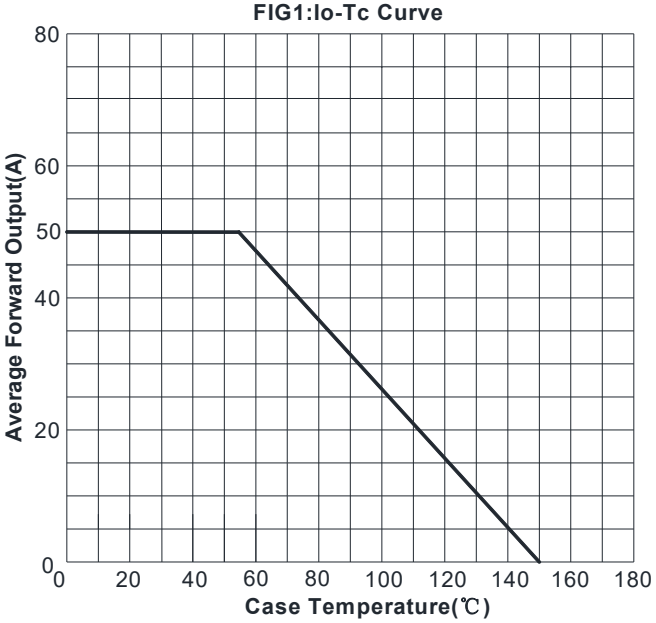
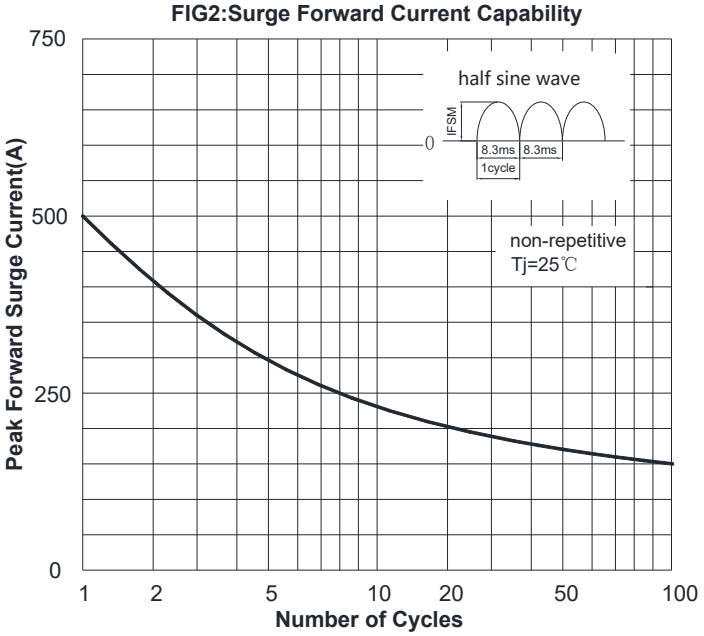
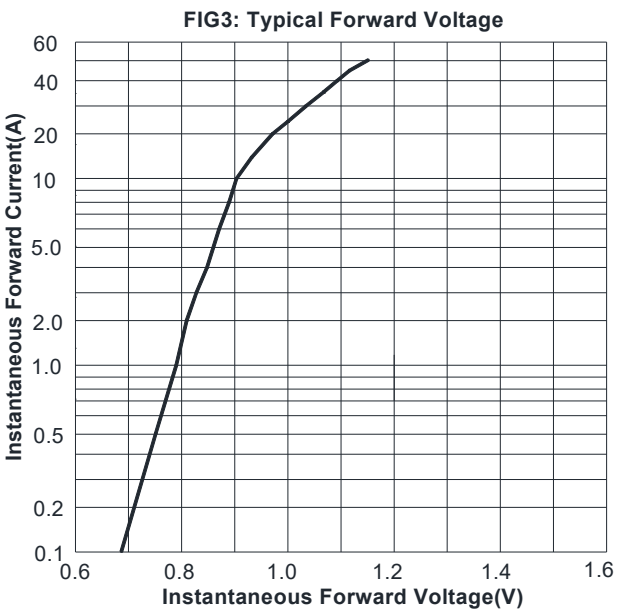
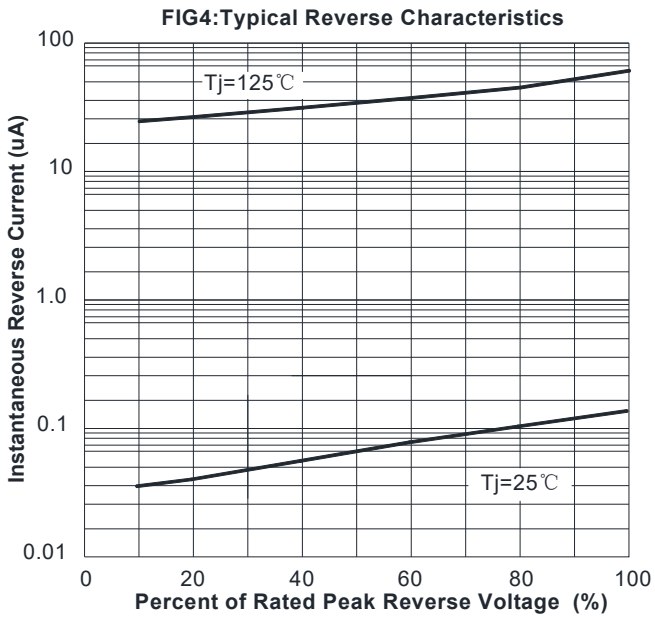


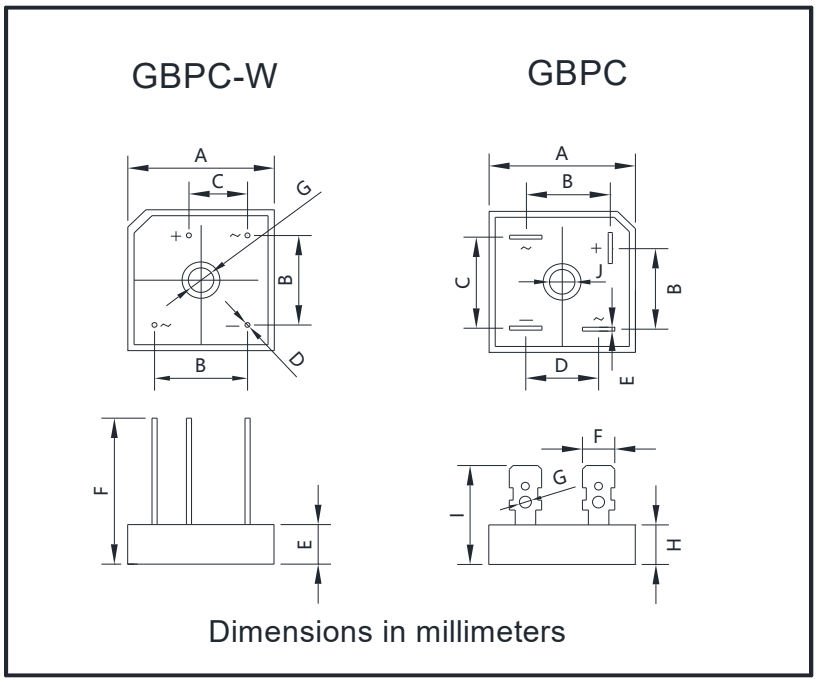
FIG2:Surge Forward Current Capability







■ 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	/
G	4.5	5.5

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	2.4	2.6
H	7.6	8.2
I	19	/
J	4.5	5.5

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