

## Bridge Rectifiers

### Features

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



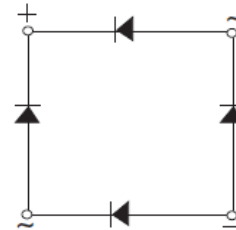
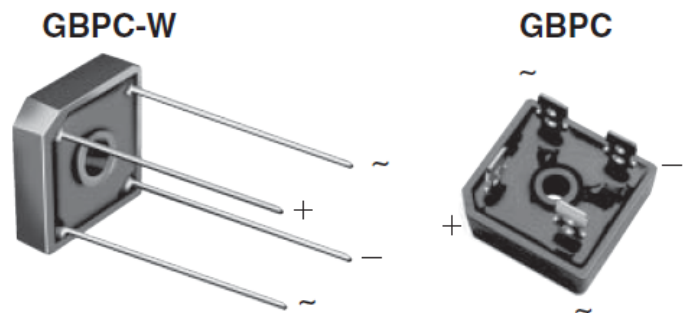
**RoHS**  
COMPLIANT

### 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. GBPC5010W)



### Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	GBPC 5005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	Unit
Device marking code		GBPC 5005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Average Rectified Output Current @60Hz sine Wave, R-load, With heatsink Tc=55°C	$I_O$	50							A
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C	$I_{FSM}$	500							A
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	$I^2t$	1040							A <sup>2</sup> S
Storage Temperature	Tstg	-55 ~+150							°C
Junction Temperature	Tj	-55 ~+150							°C
Dielectric Strength, Terminals to case, AC1minute	Vdis	2.5							KV
Mounting Torque	TOR	10							kg·cm



# GBPC5005 (W) thru GBPC5010 (W)

GOOD-ARK Electronics

Electrical Characteristics (T <sub>A</sub> =25°C unless otherwise noted)										
Parameter	Symbol	Test Conditions	GBPC 5005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	Uit
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	I <sub>FM</sub> =25A	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	V <sub>RM</sub> =V <sub>RRM</sub>	10							μA

Thermal Characteristics (T <sub>A</sub> =25°C unless otherwise noted)										
Parameter	Symbol	GBPC 5005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	Uit	
Thermal Resistance Maximum instantaneous forward voltage drop per diode	R <sub>θJ-C</sub>	0.95							°C/W	

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG1:Io-Tc Curve

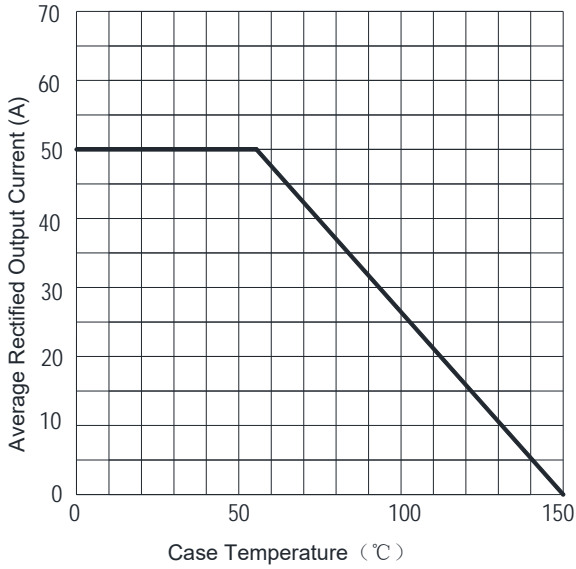


FIG2:Surge Forward Current Capability

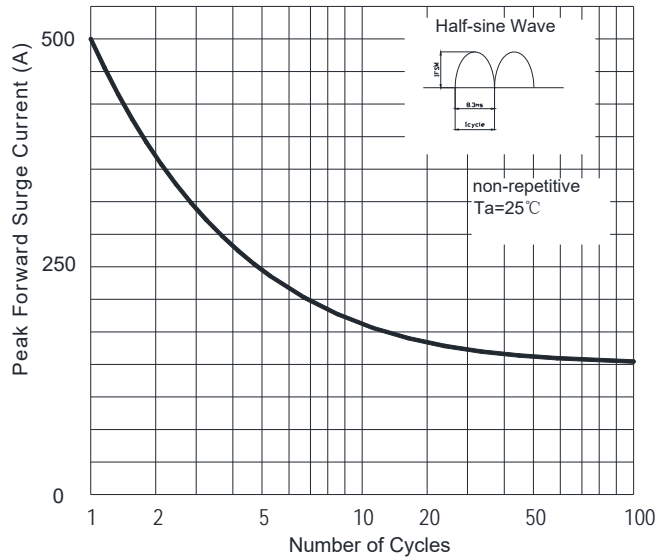


FIG3:Instantaneous Forward Voltage

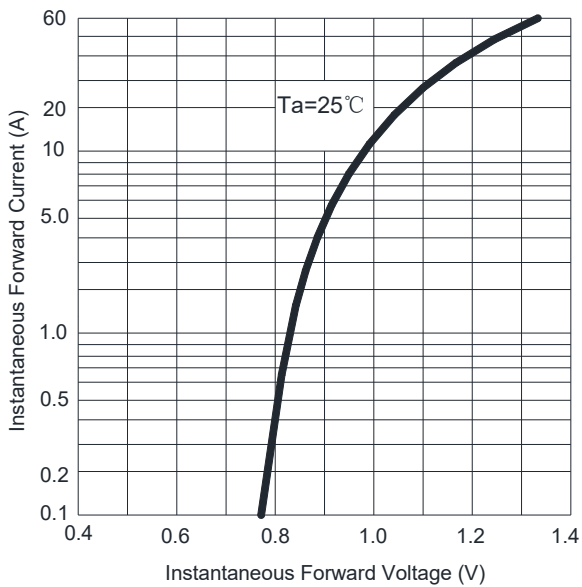
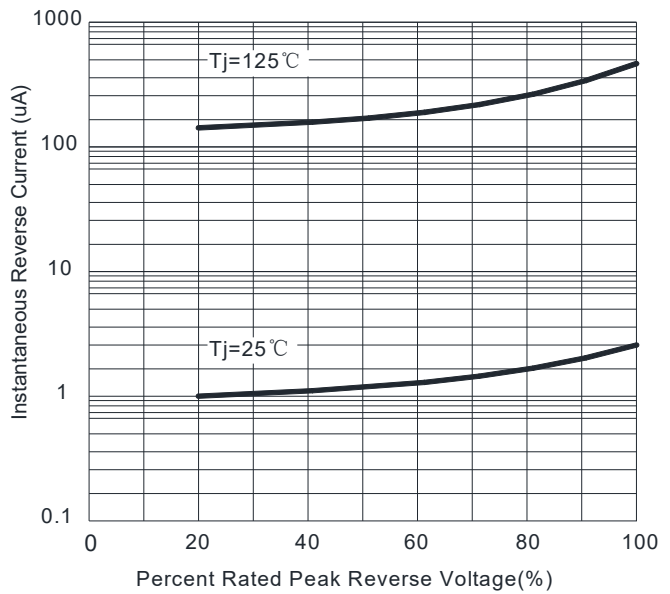


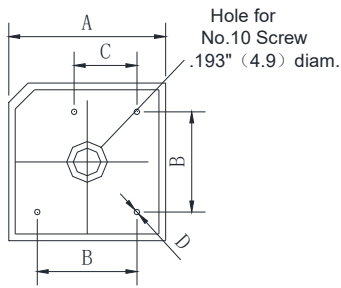
FIG4:Typical Reverse Characteristics



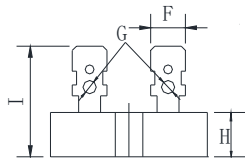
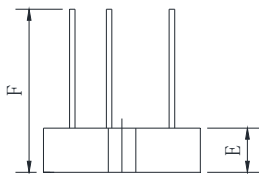
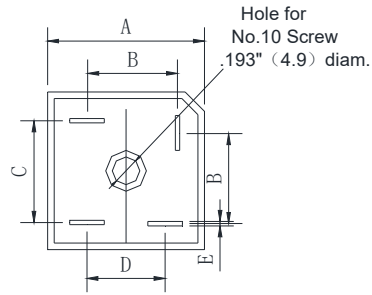
## Package Outline Dimensions

in inches (millimeters)

**GBPC-W**



**GBPC**



Dimensions in millimeters

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	/

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2015.04.28	First issue



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