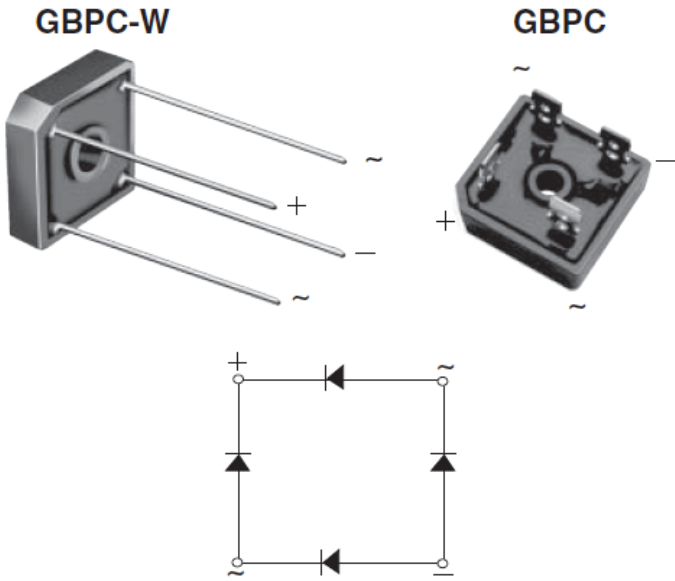


## Bridge Rectifiers



### 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. GBPC5010W).

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

PARAMETER	SYMBOL	UNIT	GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Device marking code			GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
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	50						
Surge(Non-repetitive)Forward Current @60HZ Half- sine Wave, 1 cycle, $T_a=25^\circ\text{C}$	$I_{FSM}$	A	500						
Current Squared Time @1ms $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	A <sup>2</sup> S	1040						
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	GBPC50005	GBPC5001	GBPC5002	GBPC5004	GBPC5006	GBPC5008	GBPC5010
Maximum instantaneous forward voltage drop per diode	VFM	V	$I_{FM}=25\text{A}$	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM}$	$\mu\text{A}$	$V_{RM}=V_{RRM}$	10						



# GBPC50005 THRU GBPC5010

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

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

## ■ Ordering Information (Example)

PREFERRED 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 12.4	50	50	500	Paper Box

## ■ Characteristics (Typical)

FIG1:  $I_o$ - $T_c$  Curve

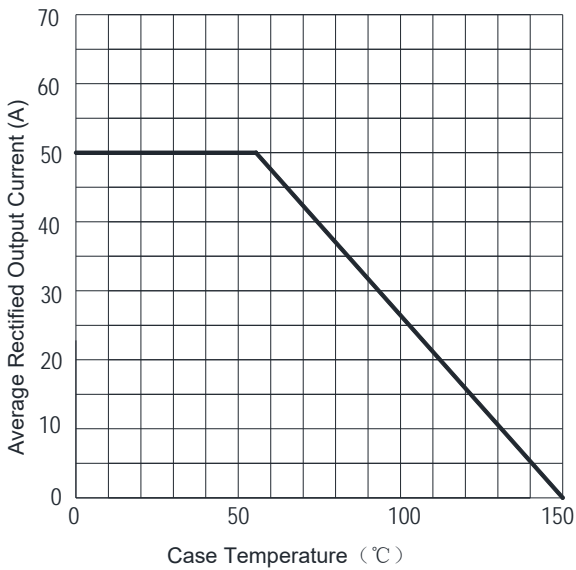


FIG2: Surge Forward Current Capability

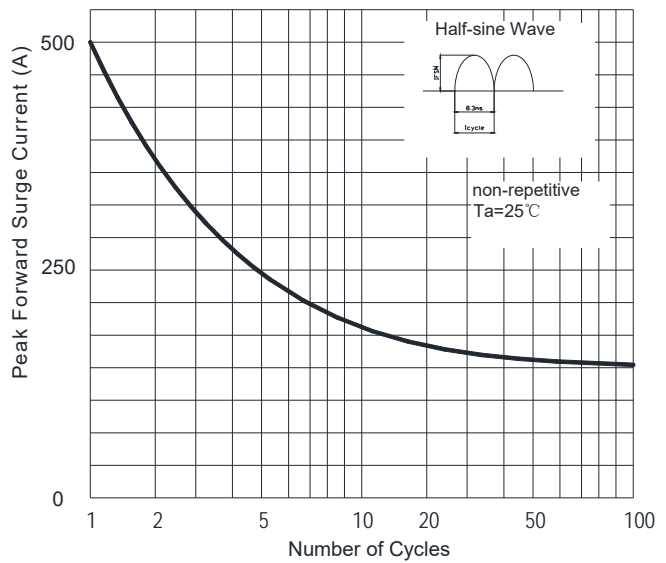


FIG3: Instantaneous Forward Voltage

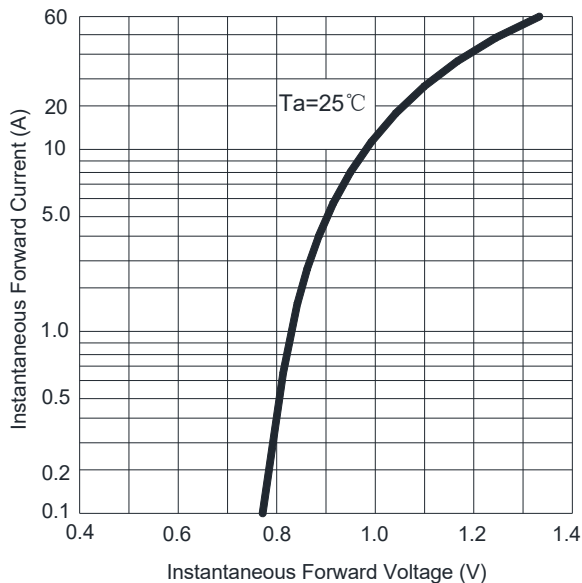
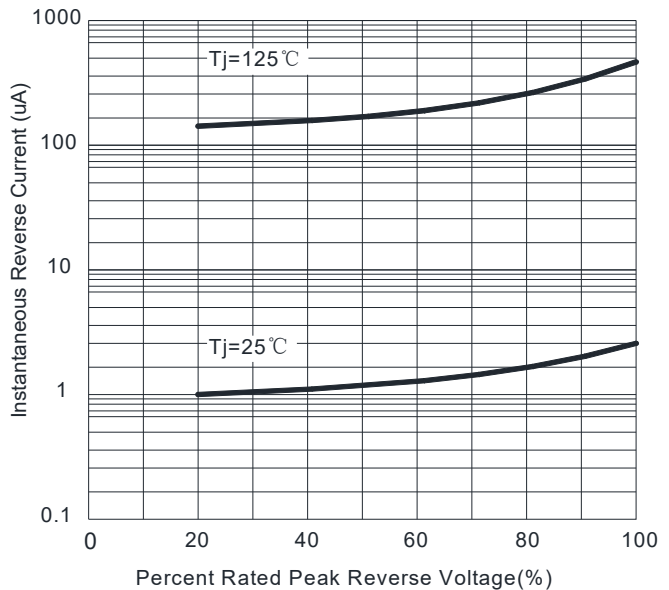


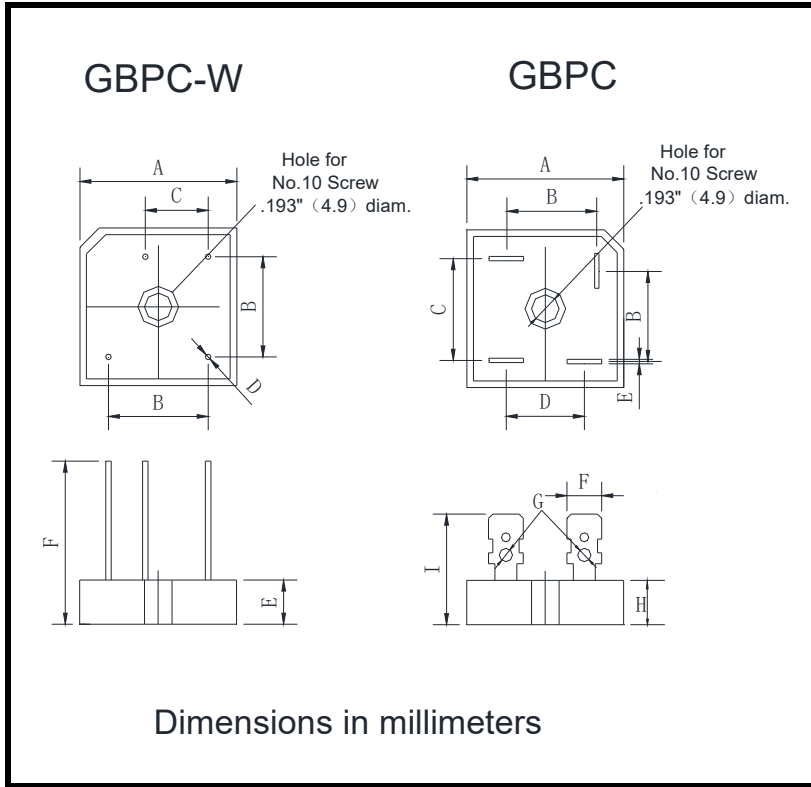
FIG4: Typical Reverse Characteristics





# GBPC50005 THRU GBPC5010

## ■ 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	/



## GBPC50005 THRU GBPC5010

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