

## Bridge Rectifiers

### Features

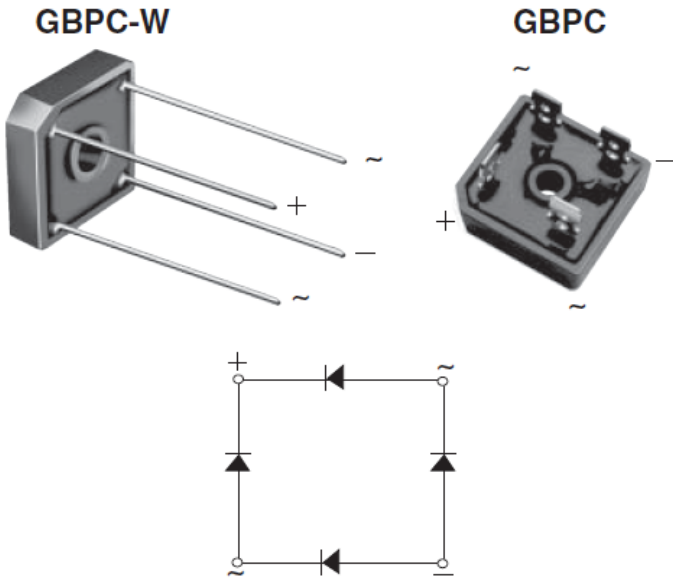
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### 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 $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$ , Rating of per diode	$i^2t$	A <sup>2</sup> 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	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 <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	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	$R_{\theta J-C}$	°C/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:Io-Tc Curve

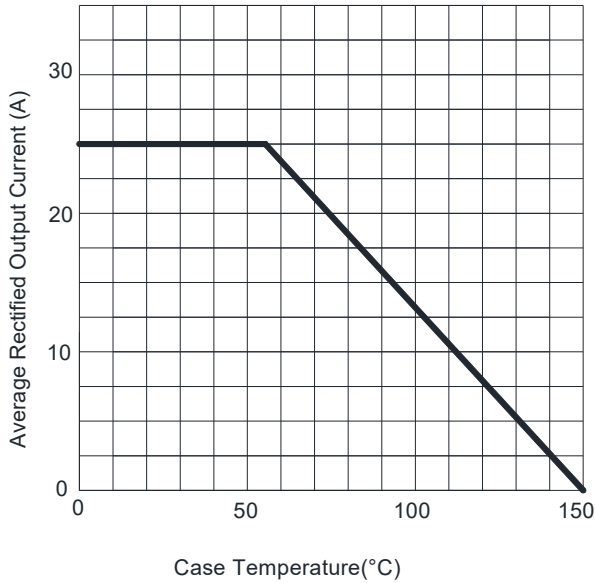


FIG2: Surge Forward Current Capability

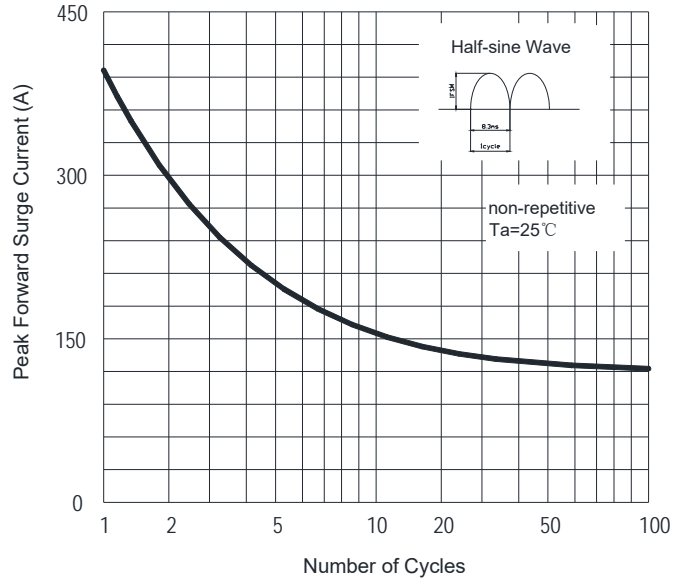


FIG3: Instantaneous Forward Voltage

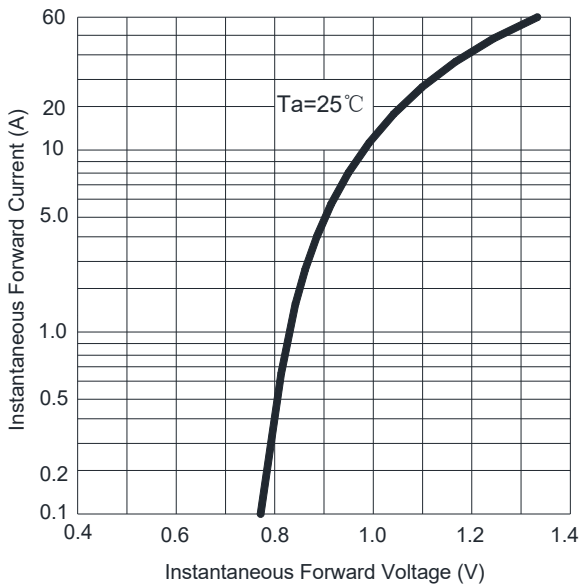
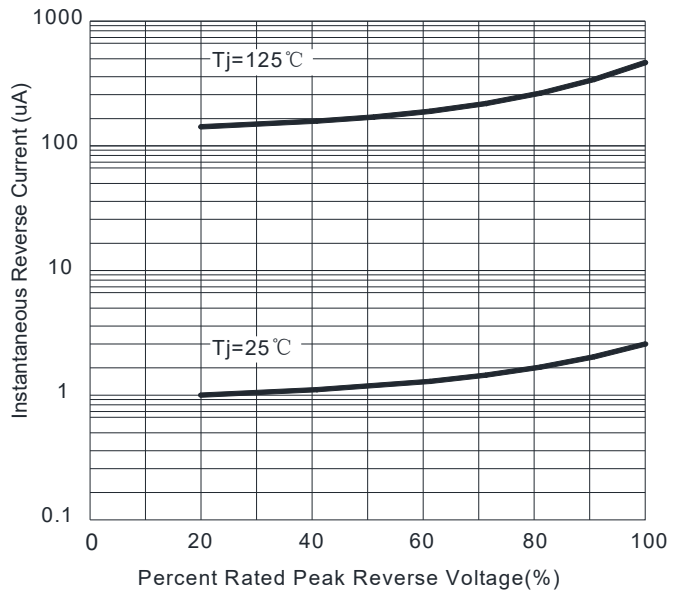


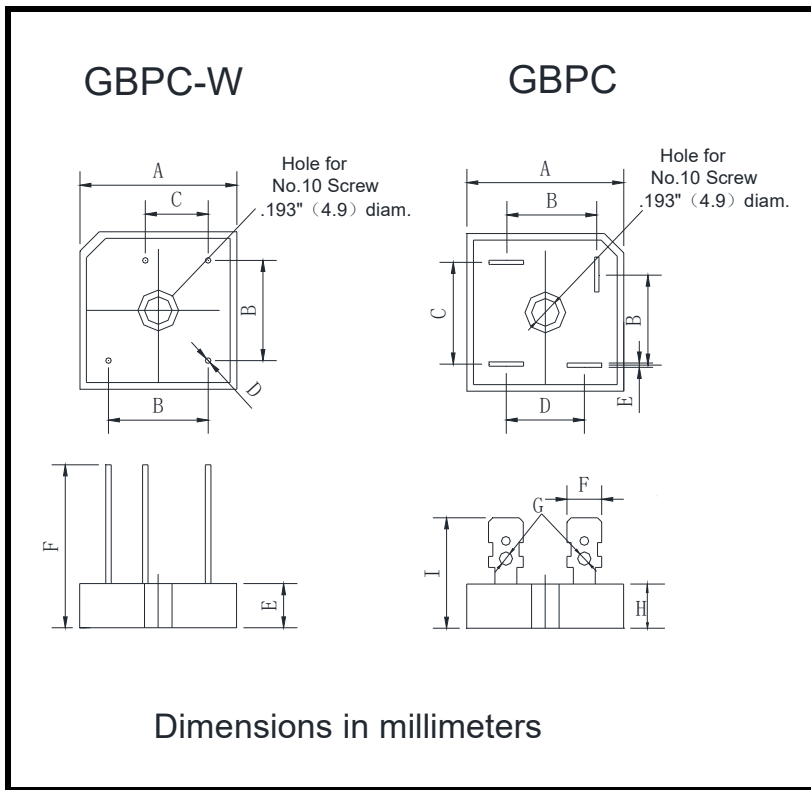
FIG4: Typical Reverse Characteristics





# 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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