

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



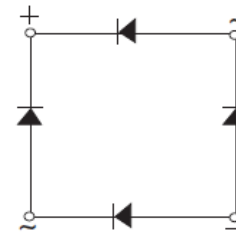
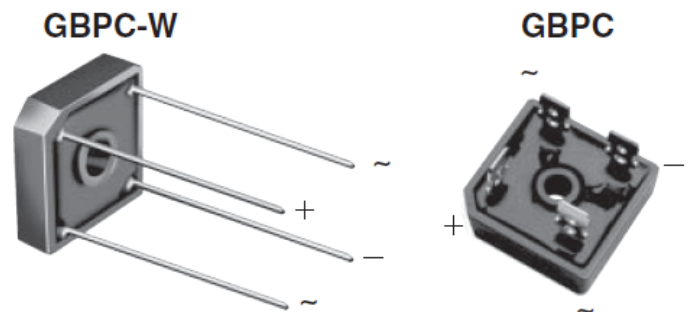
RoHS
COMPLIANT

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. GBPC2510W)



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

Parameter	Symbol	GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	Unit
Device marking code		GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	
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	25							A
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C	I _{FSM}	400							A
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I ² t	660							A ² S
Storage Temperature	T _{stg}	-55 ~+150							°C
Junction Temperature	T _J	-55 ~+150							°C
Dielectric Strength, Terminals to case, AC1minute	V _{dis}	2.5							KV
Mounting Torque	T _{OR}	10							kg·cm

Electrical Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	Test Conditions	GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	Uit
Maximum instantaneous forward voltage drop per diode	V _{FM}	I _{FM} =12.5A	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	V _{RM} =V _{RRM}	10							μA

Thermal Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	GBPC 25005	GBPC 2501	GBPC 2502	GBPC 2504	GBPC 2506	GBPC 2508	GBPC 2510	Uit	
Thermal Resistance Maximum instantaneous forward voltage drop per diode	R _{θJ-C}	1.9							°C/W	

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG1: I_o - T_c Curve

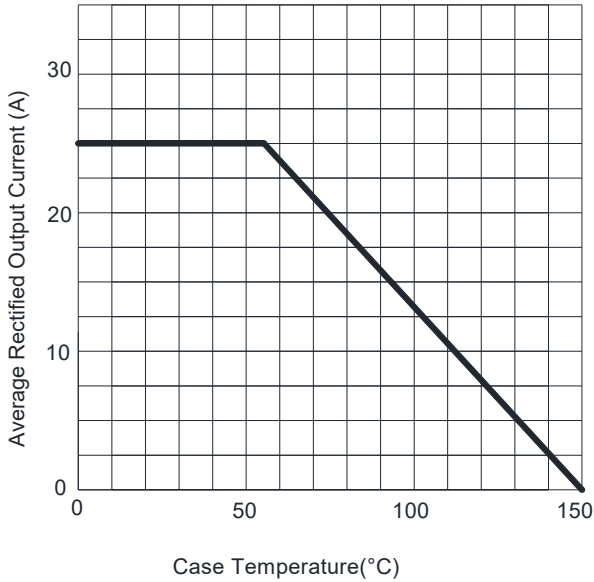


FIG2: Surge Forward Current Capability

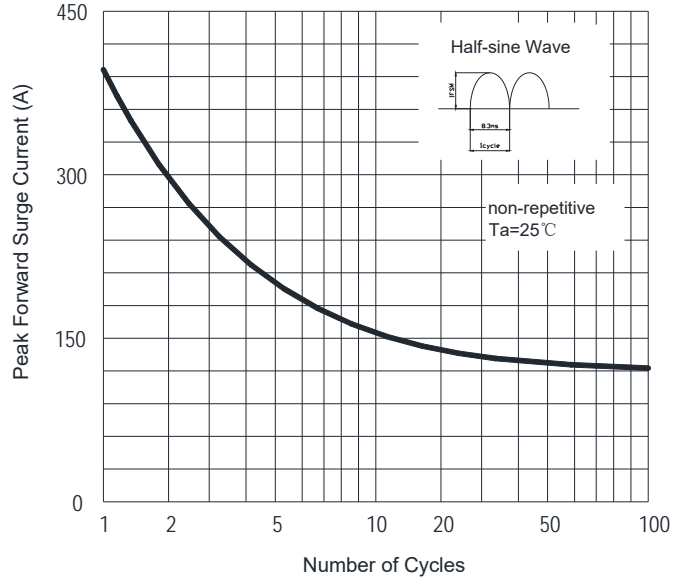


FIG3: Instantaneous Forward Voltage

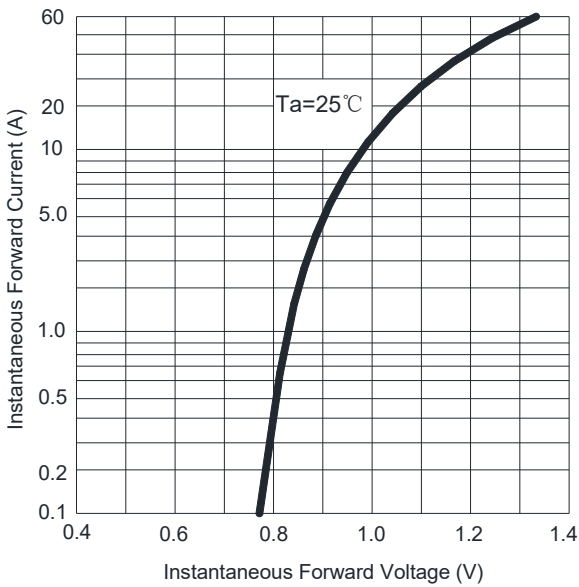
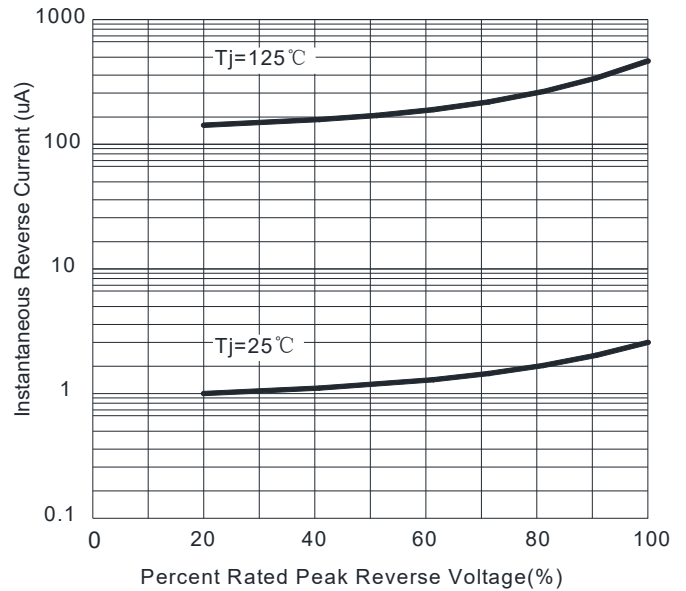


FIG4: Typical Reverse Characteristics

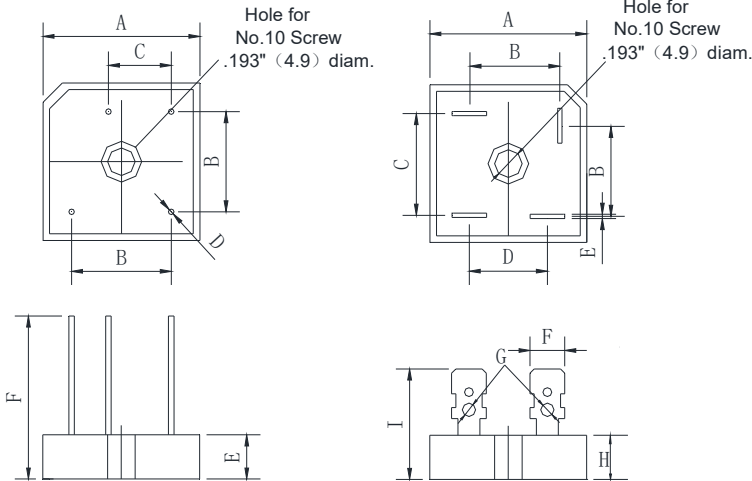


Package Outline Dimensions

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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