

GBP2005G THRU GBP210G

BRIDGE RECTIFIERS



VOLTAGE 50~1000 Volts

CURRENT 2.0 Amperes

Marking

FEATURES

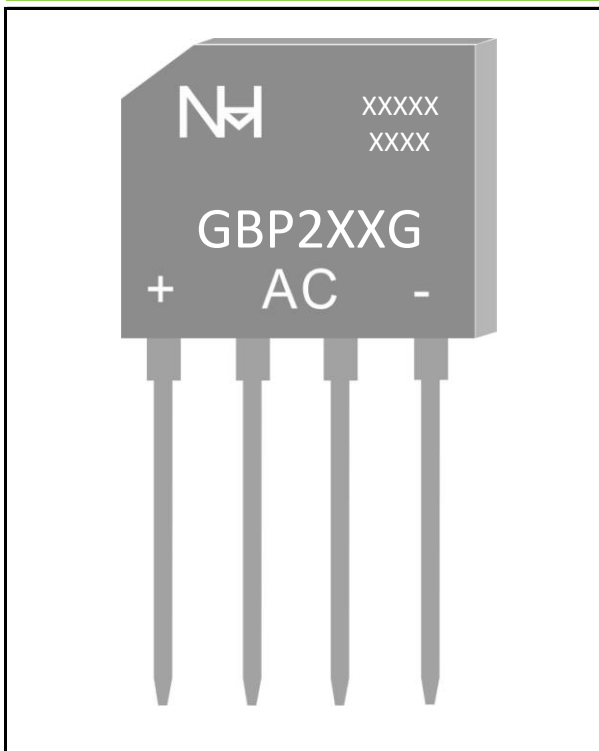
- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- High surge current capability
- Ideal for printed circuit boards
- Glass passivated chip junction

MECHANICAL DATA

- **Case:** Molded plastic body over passivated junctions
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- High temperature soldering guaranteed
- 260°C/20 seconds
- **Mounting Position:** Any

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications



Maximum Ratings and electrical characteristics(TA=25°C Unless otherwise noted)

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60HZ. For Capacitive load derate by 20%.

Type Number	Symbol	GBP 2005G	GBP 201G	GBP 202G	GBP 204G	GBP 206G	GBP 208G	GBP 210G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C=100^{\circ}C$ (see fig.1) <div>without heatsink with heatsink</div>	$I_{F(AV)}$	1.0 2.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rate Load (JEDEC Method)	I_{FSM}	60							A
Current Squared Time Per Diode($t<8.3ms$)	$I^2 t$	14.94							A ² sec
Maximum Forward Voltage Per Diode @3.0A (Note 1)	V_{FM}	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 2) <div>@ $T_A=25^{\circ}C$ @ $T_A=125^{\circ}C$</div>	I_R	5 500							uA
Typical Junction Capacitance Per Diode (Note 3)	C_J	25							pF
Operating Temperature Range	T_J	-55 to +150							$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150							

- Note: 1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Pulse test: pulse width ≤ 40ms
3. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

GBP2005G THRU GBP210G

BRIDGE RECTIFIERS



RATING AND CHARACTERISTIC CURVES

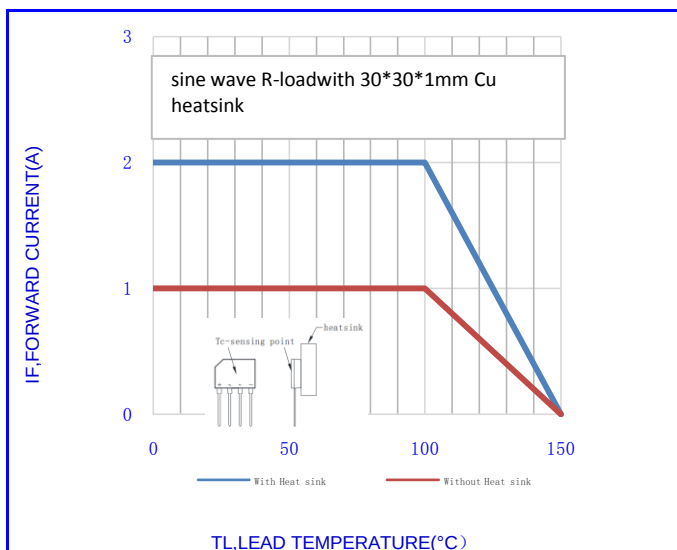


Fig.1-FORWARD CURRENT DERATING CURVE

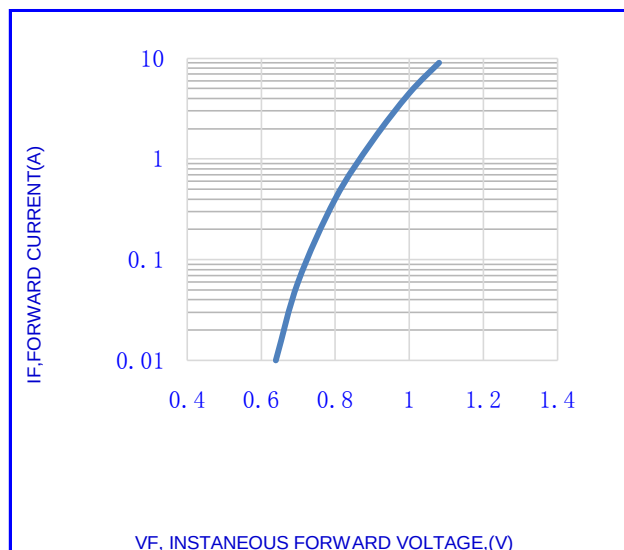


Fig.2- TYPICAL FORWARD CHARACTERISTICS

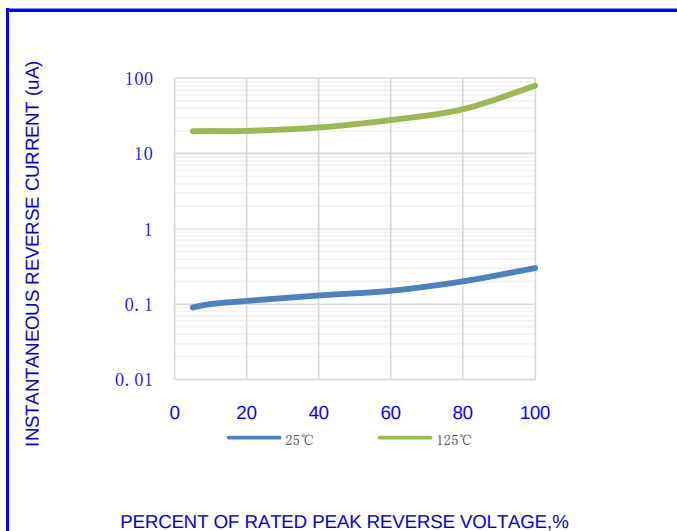


Fig.3-TYPICAL REVERSE CHARACTERISTICS

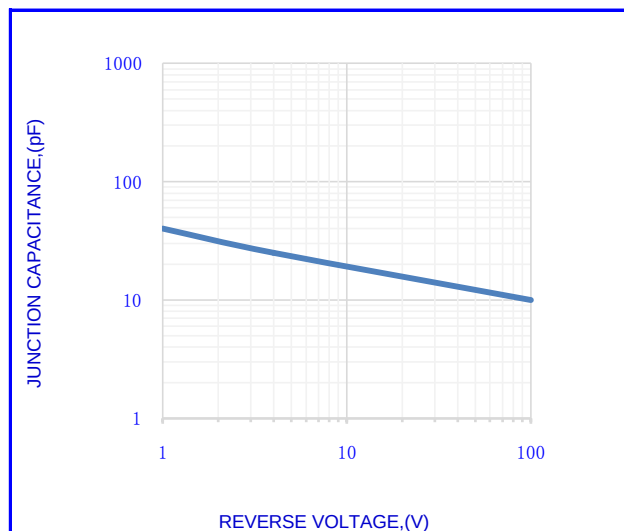


Fig.4- TYPICAL JUNCTION CAPACITANCE

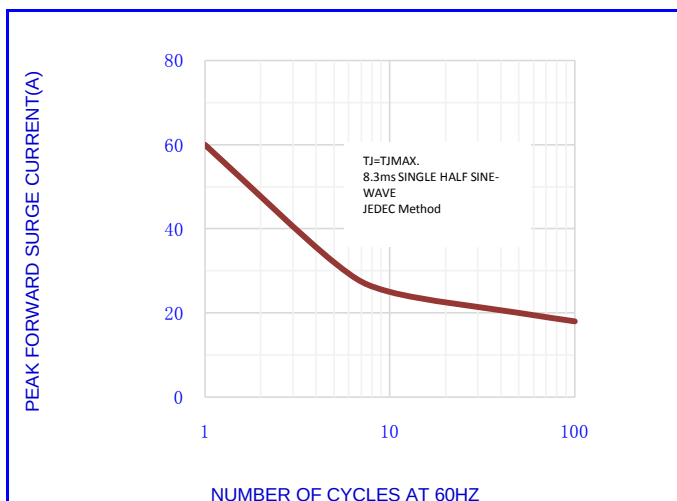


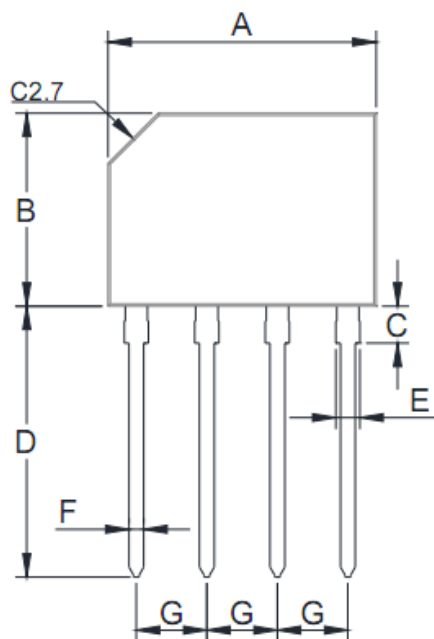
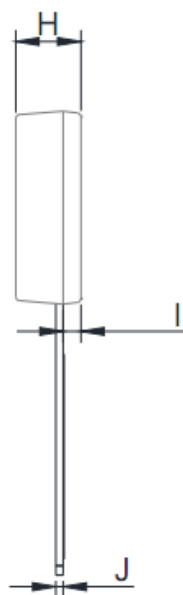
Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

GBP2005G THRU GBP210G

BRIDGE RECTIFIERS



OUTLINE DRAWINGS



All Dimensions in mm		
Dim	Max.	Min.
A	14.22	15.24
B	10.10	10.60
C	1.80	2.20
D	14.25	14.75
E	1.30	1.55
F	0.76	0.86
G	3.70	3.90
H	3.35	3.65
I	0.80	1.10
J	0.35	0.55

GBP

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbl	GBP	Unit
Typical thermal resistance (Note 4)	$R_{\theta JA}$	34	°C/W
	$R_{\theta JL}$	15	

Note: 4. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

Packing Information

Product code	Pack	Quantity (pcs/box)	Box Size L×W×H(mm)	Carton Size L×W×H(mm)	Quantity (box/carton)
GBP2005G THRU GBP210G -GBP	B/P	500	230*50*230	495*245*180	10