GBP3005G THRU GBP310G

BRIDGE RECTIFIERS

VOLTAGE 50~1000 Volts CURRENT 3.0 Ampers

FEATURES

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

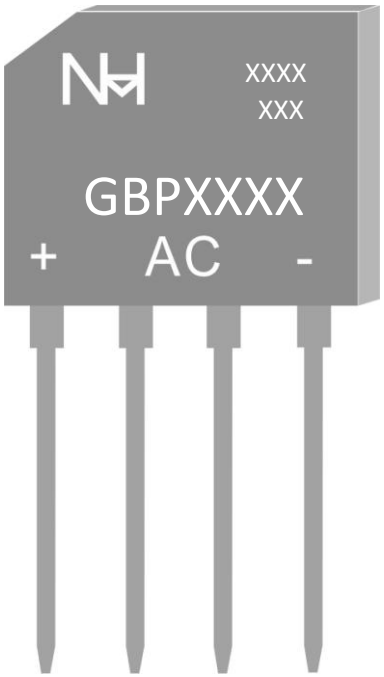
MECHANICAL DATA

- **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

Marking



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

Rating at 25℃ ambient temperature unless otherwise specified.Resistive or Inductive load,60HZ.For Capacitive load derate by20%.

Type Number	*Symbol*	*GBP 3005G*	*GBP 301G*	*GBP 302G*	*GBP 304G*	*GBP 306G*	*GBP 308G*	*GBP 310G*	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°C (see fig.1) — without heatsink	$I_{F(AV)}$	1.5							A
Maximum Average Forward Rectified Current @ T_C=100°C (see fig.1) — with heatsink		3.0							
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rate Load (JEDEC Method)	I_{FSM}	80							A
Current Squared Time Per Diode(t<8.3ms)	I^2t	26.56							A^2sec
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) — @ T_A=25℃	I_R	5							uA
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 2) — @ T_A=125℃		500							
Typical Junction Capacitance Per Diode (Note 3)	C_J	35							pF
Operating Temperature Range	T_J	-55 to +150							℃
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.

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RATINGANDCHARACTERISTICCURVES

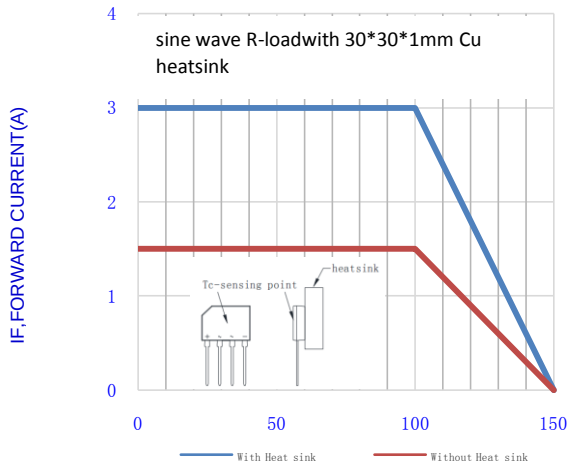


Fig.1-FORWARD CURRENT DERATING CURVE

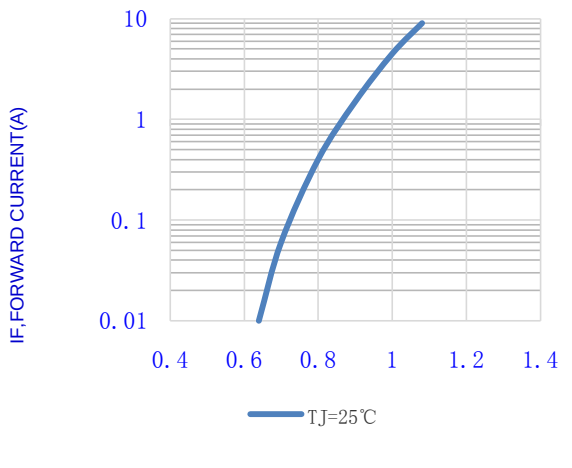


Fig.2- TYPEICAL FORWARD CHARACTERISTICS

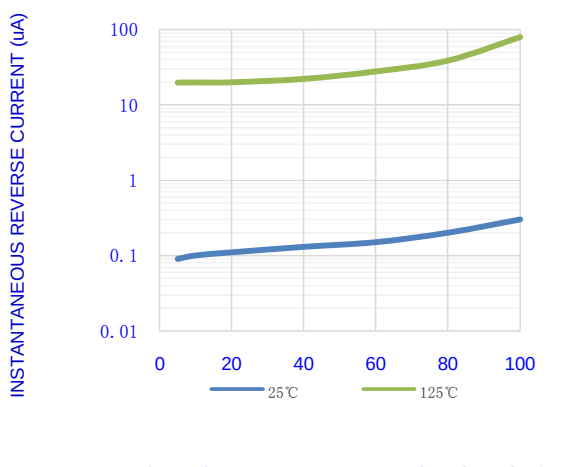


Fig.3-TYPICAL REVERSE CHARACTERISTICS

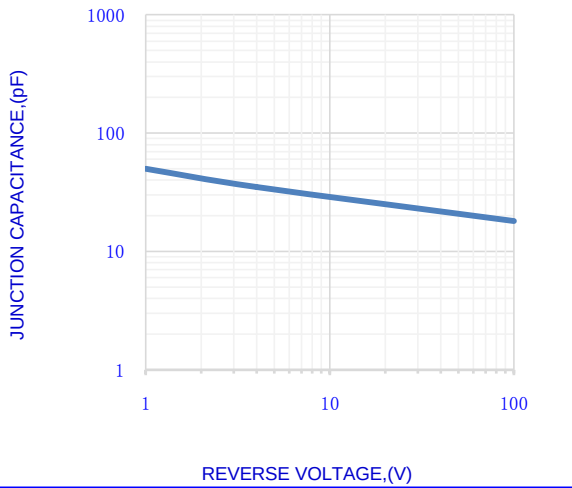


Fig.4- TYPICAL JUNCTION CAPACITANCE

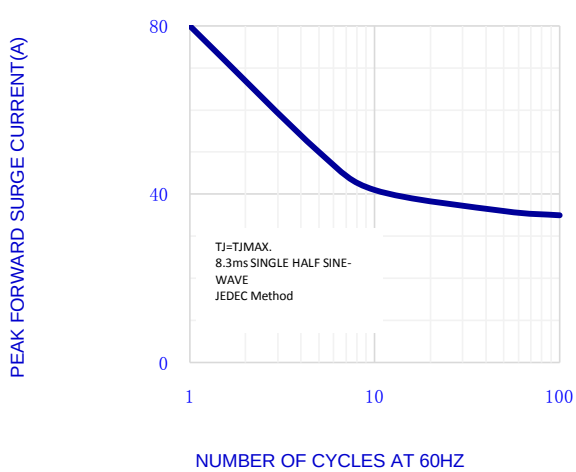


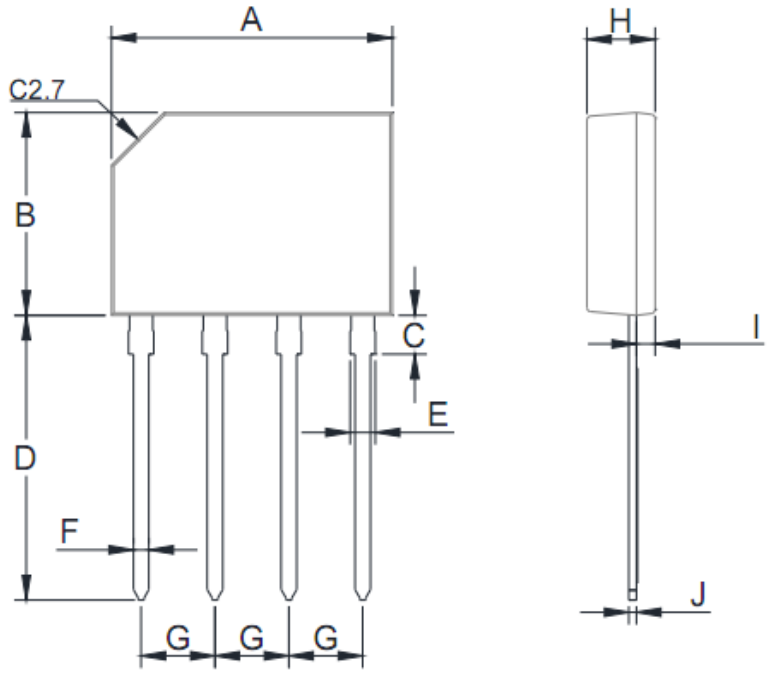
Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

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OUTLINE DRAWINGS



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
All Dimensions in mm		

GBP

Thermal Characteristcs

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

Parameter	*Symbl*	*GBP*	*Unit*
Typical thermal resistance (Note 4)	$R_{\theta JA}$	34	℃/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)*
GBP3005G THRU GBP310P -GBP	B/P	500	230*50*230	495*245*180	10

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