

# Glass Passivated Bridge Rectifiers

**COMCHIP**  
SMD DIODE SPECIALIST



## GBJ10005-G thru GBJ1010-G

"-G" : RoHS Device

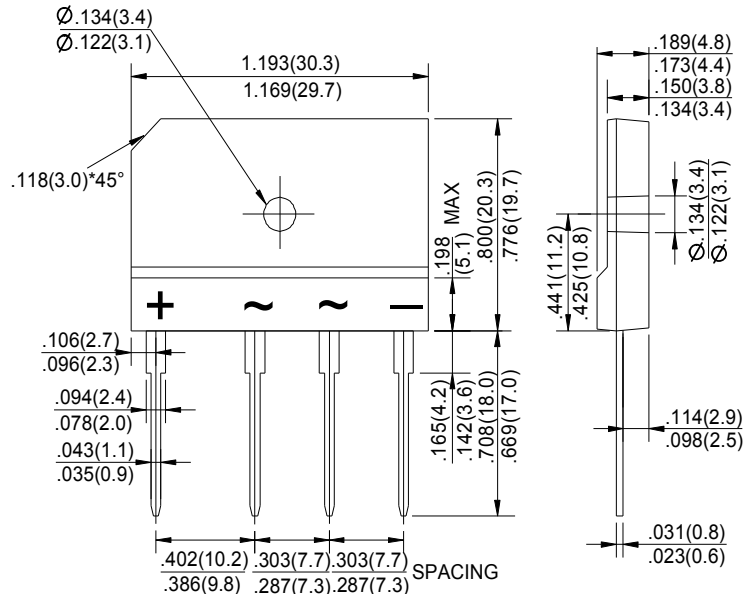
REVERSE VOLTAGE - 50 to 1000V

FORWARD CURRENT - 10 A

### FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0

### GBJ



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	GBJ 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	UNIT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward (with heatsink Note 2) Rectified Current @ T <sub>c</sub> =110°C (without heatsink)	I <sub>(AV)</sub>	10.0						3.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	220								A
Maximum Forward Voltage at 5.0A DC	V <sub>F</sub>	1.1								V
Maximum DC Reverse Current @ T <sub>J</sub> =25°C at Rated DC Blocking Voltage @ T <sub>J</sub> =125°C	I <sub>R</sub>	10.0						500		µA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	120								A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	55								pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	1.4								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 150mm\*150mm\*1.6mm cu plate heatsink.

## RATINGS AND CHARACTERISTIC CURVES GBJ10005-G thru GBJ1010-G

FIG.1-FORWARD CURRENT DERATING CURVE

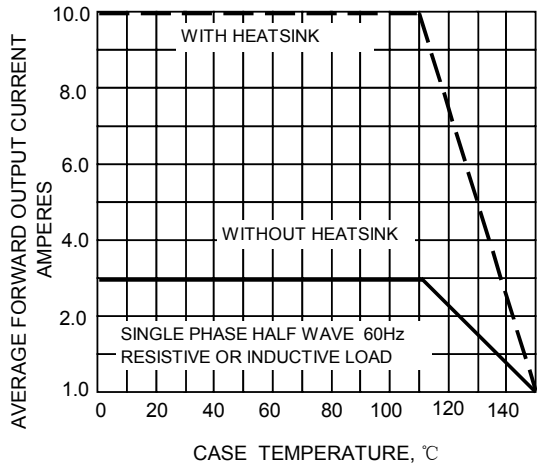


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

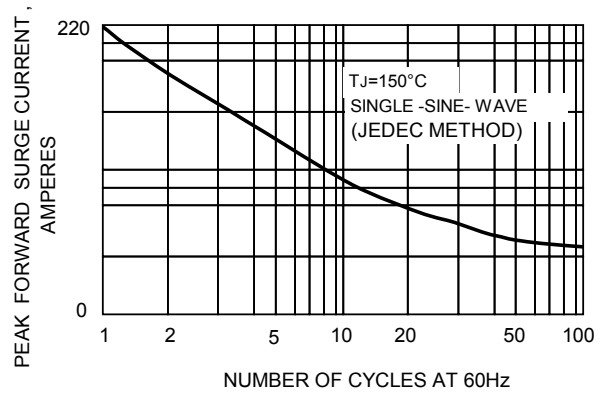


FIG.3-TYPICAL JUNCTION CAPACITANCE

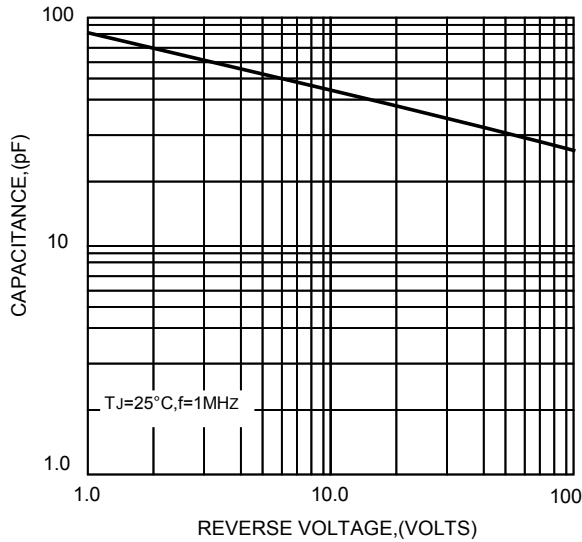


FIG.4-TYPICAL FORWARD CHARACTERISTICS

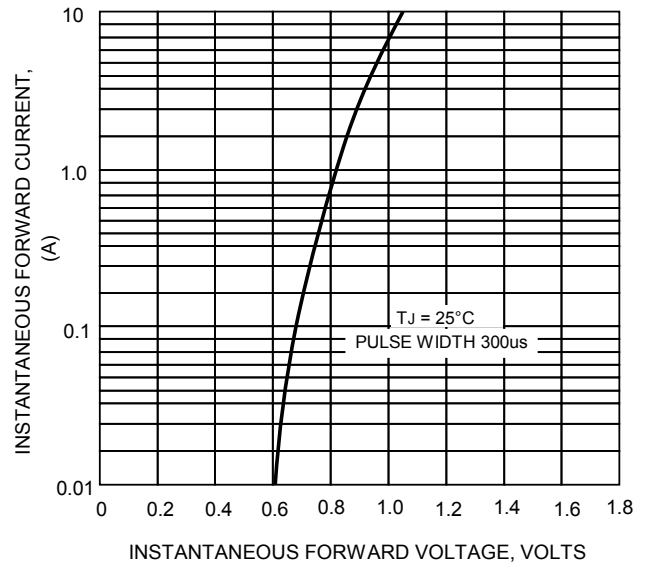


FIG.5-TYPICAL REVERSE CHARACTERISTICS

