



# 6GBJ Plastic-Encapsulate Bridge Rectifier

## GBJ6005 THRU GBJ610

General Purpose Bridge Rectifier

### Features

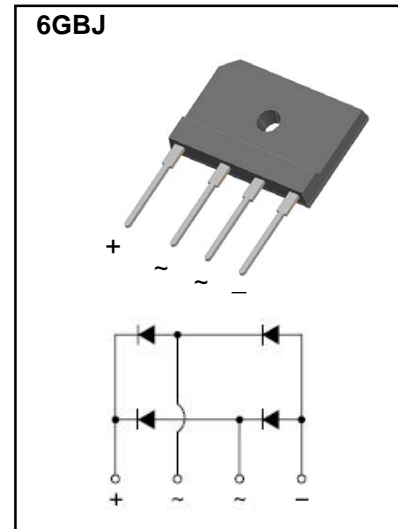
- I<sub>o</sub> 6A
- V<sub>RRM</sub> 50V-1000V
- High surge current capability
- Glass passivated chip

### Applications

- General purpose 1 phase Bridge rectifier applications

### Marking

- GBJ6XX  
XX : From 005 To 10



### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBJ6						
				005	01	02	04	06	08	10
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V		50	100	200	400	600	800	1000
Average Rectified Output Current	I <sub>o</sub>	A	60Hz sine wave, R-load	With heatsink T <sub>c</sub> =100°C						
				Without heatsink T <sub>a</sub> =100°C						
Surge(Non-repetitive)Forward Current	I <sub>FSM</sub>	A	60Hz sine wave, 1 cycle, T <sub>j</sub> =25°C	175						
Current Squared Time	I <sup>2</sup> t	A <sup>2</sup> S	1ms≤t<8.3ms T <sub>j</sub> =25°C, Rating of per diode	127						
Storage Temperature	T <sub>stg</sub>	°C		-55 ~+150						
Junction Temperature	T <sub>j</sub>	°C		-55 ~+150						
Dielectric Strength	V <sub>dis</sub>	KV	Terminals to case, AC 1 minute	2.5						
Mounting Torque	Tor	kg·cm	Recommend torque: 5kg·cm	8						

### Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>FM</sub> =3.0A, Pulse measurement, Rating of per diode	1.0
Peak Reverse Current	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub> , Pulse measurement, Rating of per diode	5
Thermal Resistance	R <sub>θ J-A</sub>	°C/W	Between junction and ambient, Without heatsink	22
	R <sub>θ J-C</sub>		Between junction and case, With heatsink	1.5

# Typical Characteristics

FIG.1-MAXIMUM FORWARD SURGE CURRENT

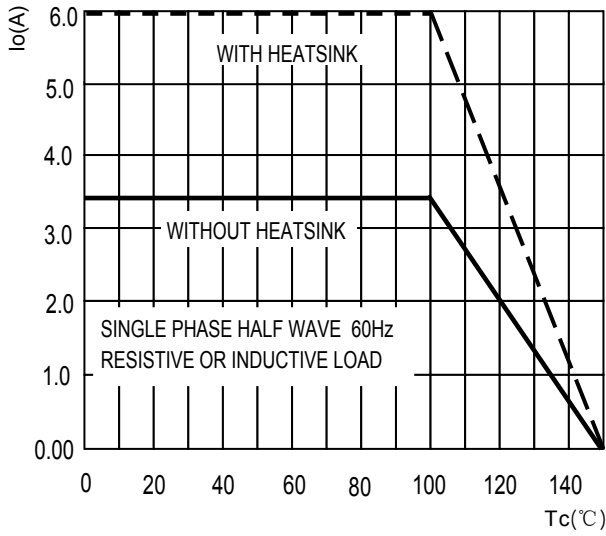


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

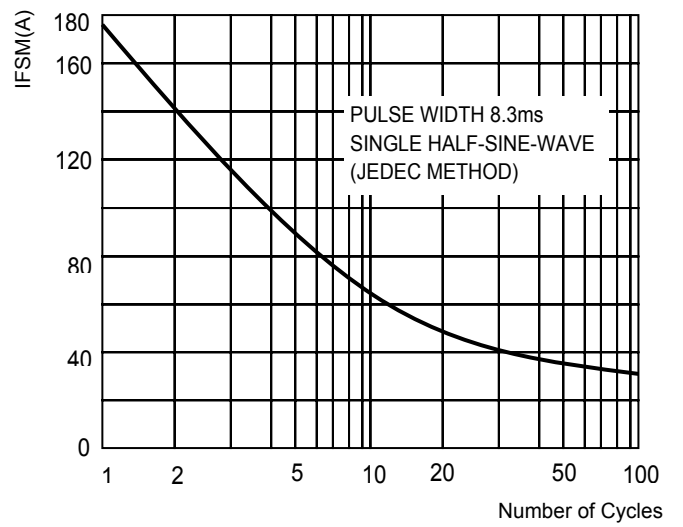


FIG.3-TYPICAL FORWARD CHARACTERISTICS

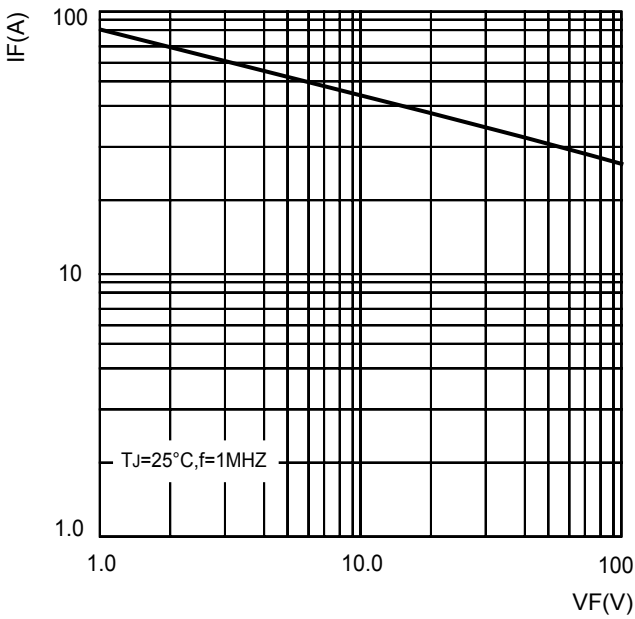


FIG.4-TYPICAL REVERSE CHARACTERISTICS

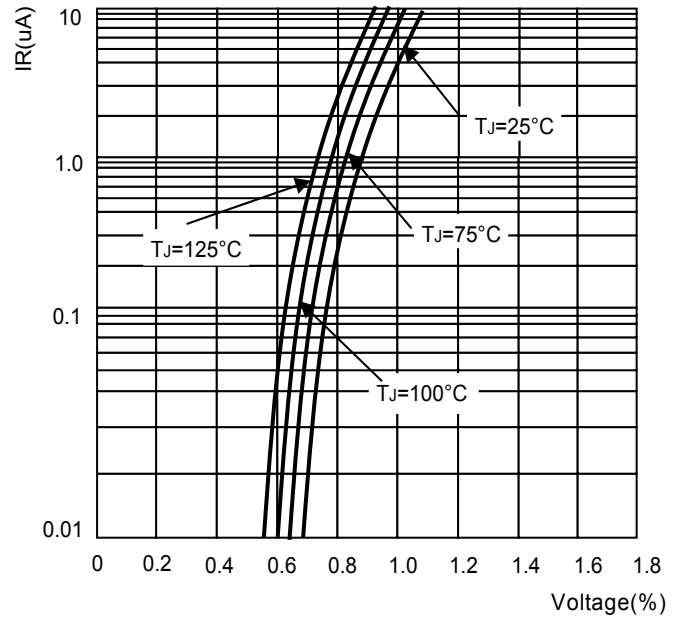
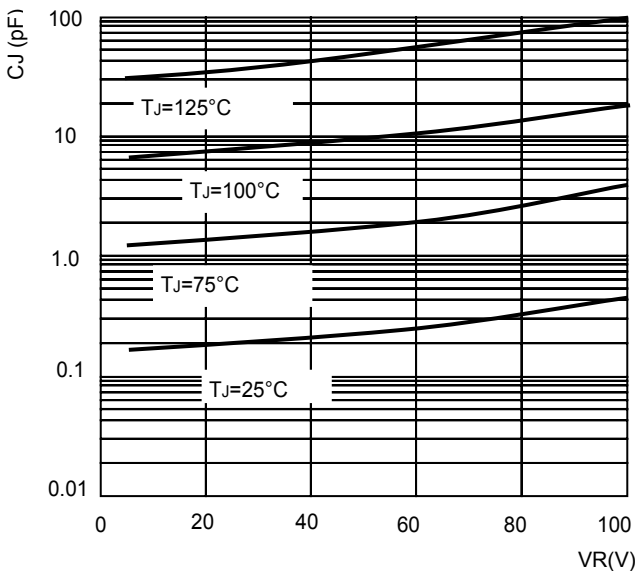
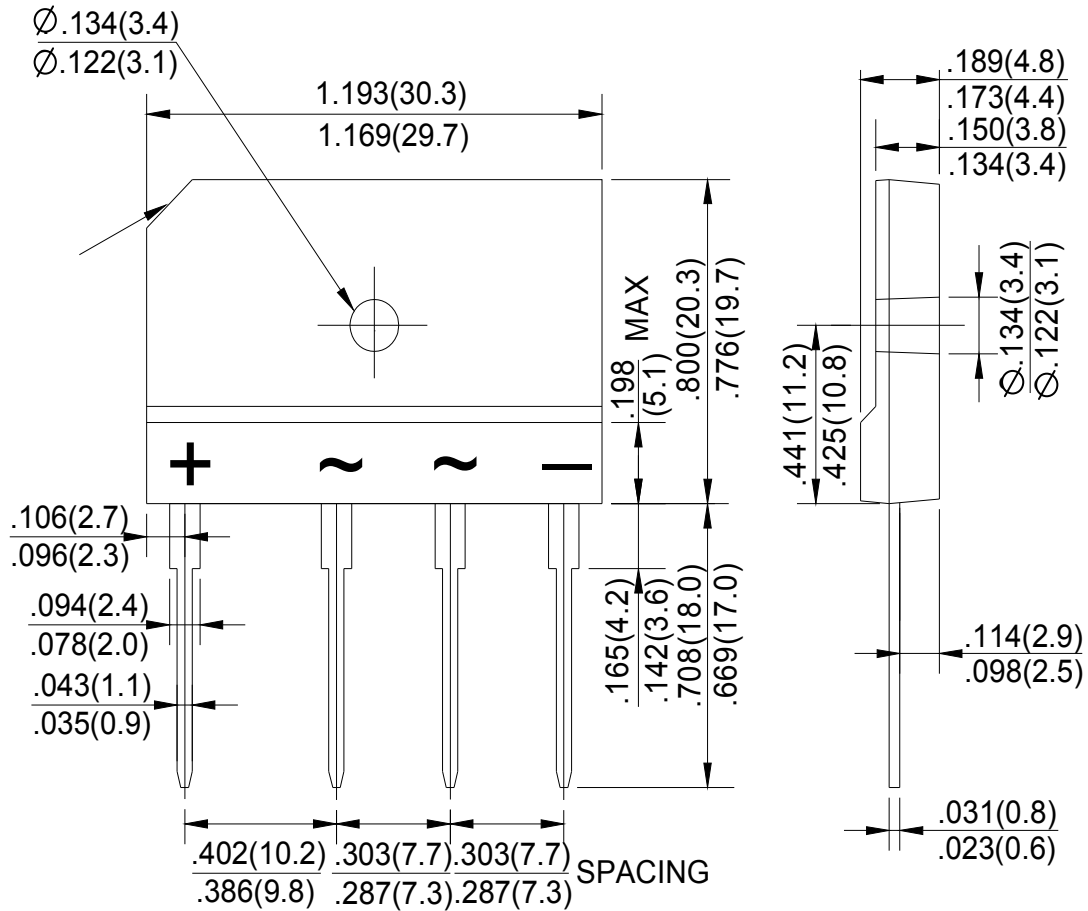


FIG.5-TYPICAL JUNCTION CAPACITANCE



## 6GBJ Package Outline Dimensions



Dimensions in inches and (millimeters)

### NOTICE

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