

# GBJ30005 - GBJ3010/G

Single Phase 30Amp Glass passivated Bridge Rectifiers

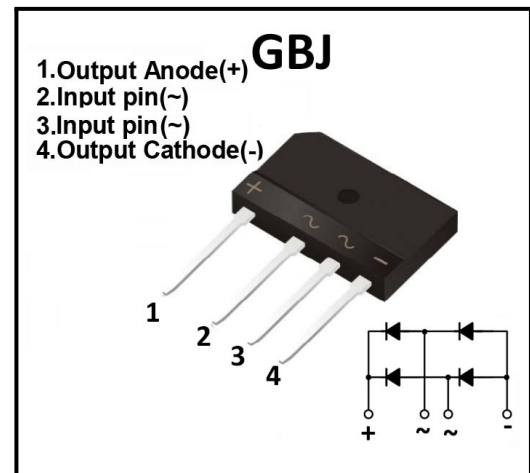
## Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- The G suffix is uses for photoresist chip, otherwise it is a knife scraping chip

## MECHANICAL DATA

- Case: Molded plastic, GBJ
- Terminals: Plated Leads Solderable perMIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

## Mechanical Data



## Maximum Ratings And Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise noted)

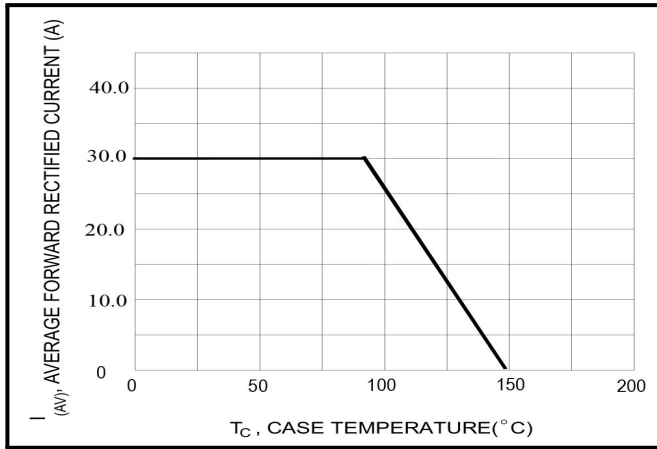
Symbol	Parameter	GBJ 30005	GBJ 3001	GBJ 3002	GBJ 3004	GBJ 3006	GBJ 3008	GBJ 3010	Unit
$V_{RRM}$	repetitive peak reverse voltage	50	100	200	400	600	800	1000	V
$V_{RWM}$	Working Peak Reverse Voltage	50	100	200	400	600	800	1000	
$V_{RMS}$	RMS voltage	35	70	140	280	420	560	700	
$V_{DC}$	DC blocking voltage	50	100	200	400	600	800	1000	
$I_{FAV}$	Average Rectified Output Current (Note 1)@ $T_C=90^{\circ}\text{C}$	30.0							A
$I_{FSM}$	Peak forward surge current, 8.3ms single half sine-wave	350							A
$I_t^2$	$I_t^2$ Rating for fusing (t<8.3ms)	508.375							$A_s^2$
$V_{FM}$	Forward Voltage element @ $I_F=15\text{A}$	1.05							V
$I_R$	Peak Reverse Current@ $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage @ $T_A=125^{\circ}\text{C}$	5.0 500							$\mu\text{A}$
$C_J$	Typical junction capacitance	75							pF
$R_{\theta JA}$	Between junction and ambient, Without heatsink	22							$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Between junction and case, With heatsink	0.8							
$T_J$	Operation Temperature Range	-55 to +150							$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150							

Note:(1)Thermal resistance from junction to case per element. Unit mounted on 75x75x1.6mm aluminum plate heat sink.

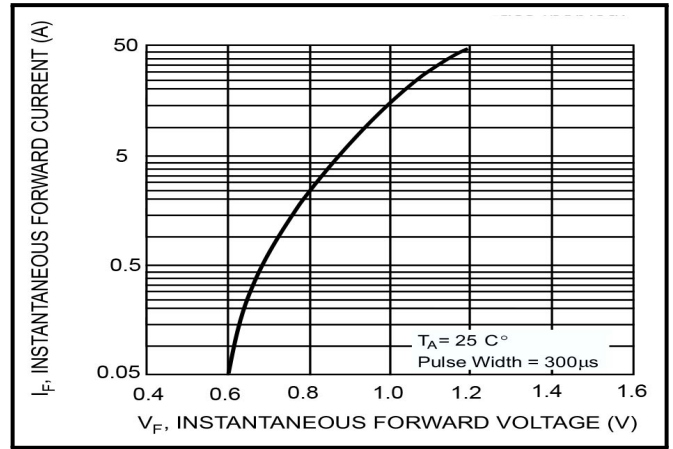


**Ratings And Characteristic Curves**

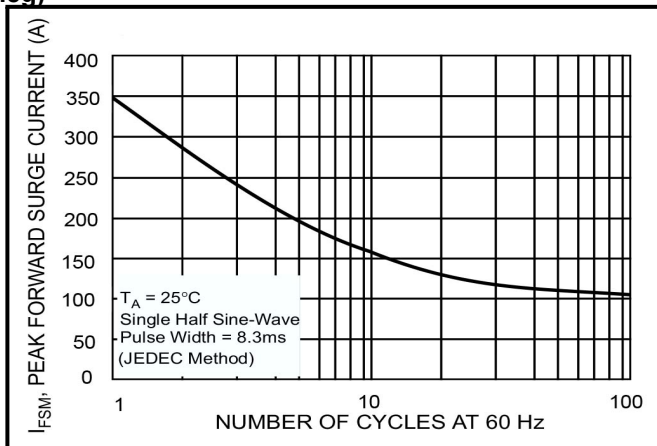
**Figure 1: Output Current Derating Curve**



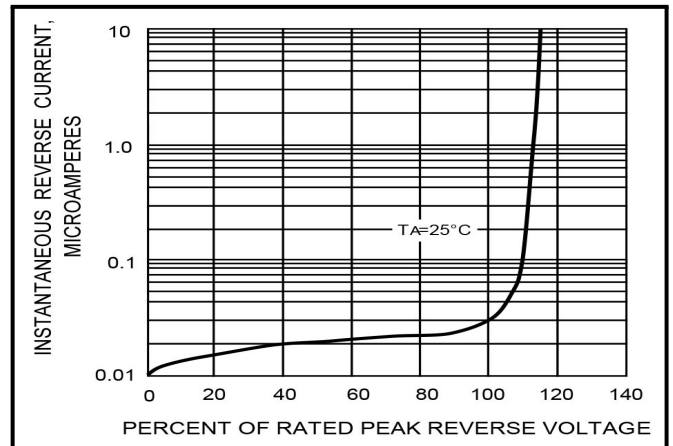
**Figure 2: Typical Forward Characteristics (per leg)**



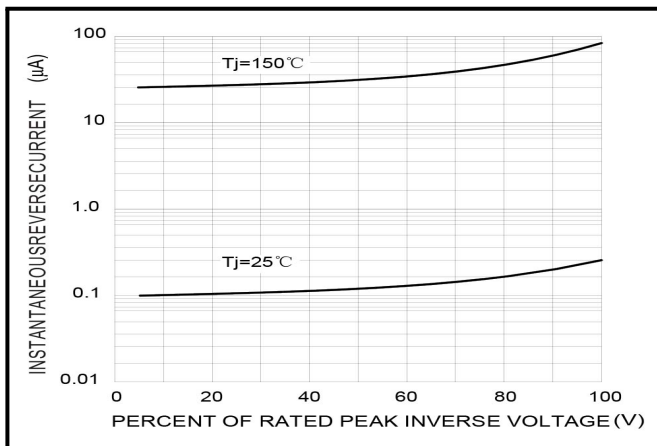
**Figure 3: Maximum Peak Forward Surge Current (per leg)**



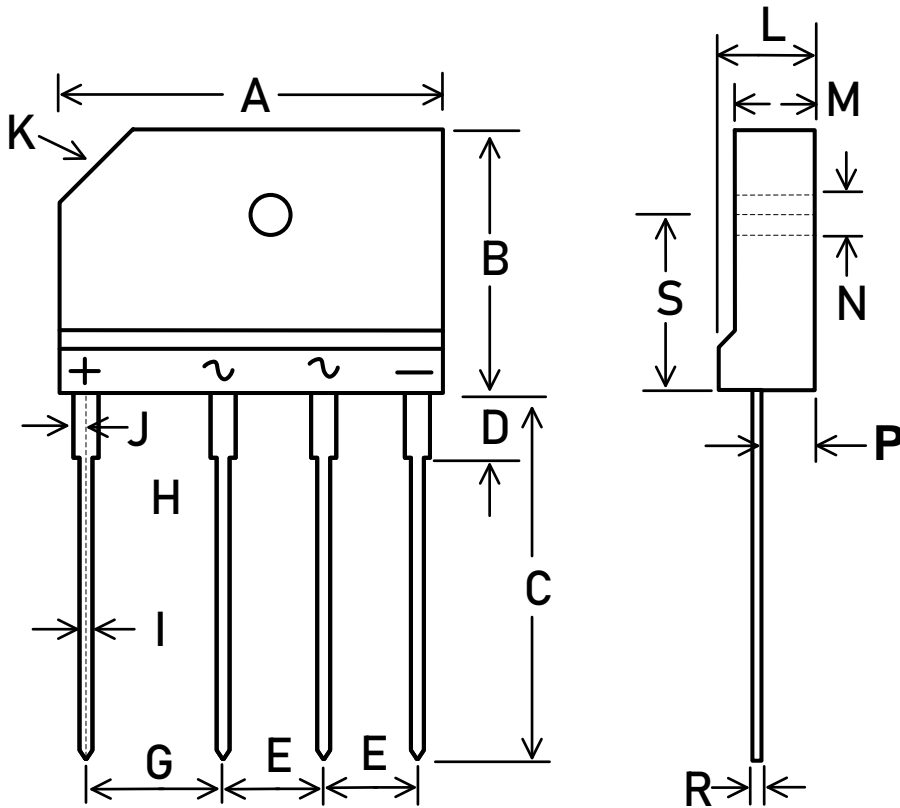
**Figure 4: Typical Junction Capacitance**



**Figure 5: TYPICAL REVERSE CHARACTERISTICS**



Outline Drawing -GBJ



SYMBOL	MILLIMETER	
	MIN.	MAX.
A	29.70	30.3
B	19.70	20.3
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0x45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20



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