

GBJ50005 - GBJ5010/G

Single Phase 50Amp Glass passivated Bridge Rectifiers

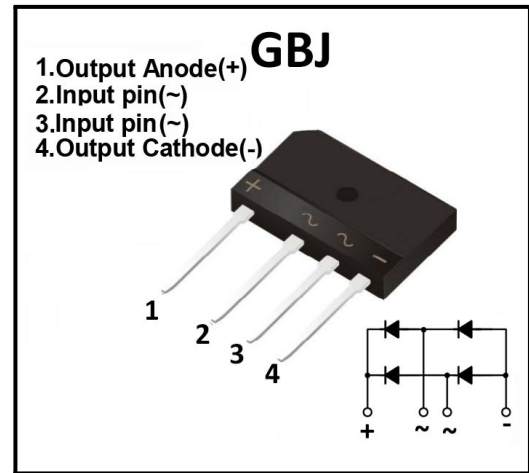
Features

- 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°C unless otherwise noted)

Symbol	Parameter	GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	Unit
		50005	5001	5002	5004	5006	5008	5010	
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°C	50.0							A
I _{FSM}	Peak forward surge current, 8.3ms single half sine-wave	400							A
I _t ²	I _t ² Rating for fusing (t<8.3ms)	840.375							A _S ²
V _{FM}	Forward Voltage element @IF=25A	1.1							V
I _R	Peak Reverse Current@T _A =25°C at rated DC blocking voltage@ T _A =125°C	5.0							uA
C _J	Typical junction capacitance	75							pF
R _{θJA}	Between junction and ambient, Without heatsink	22							°C/W
R _{θJC}	Between junction and case, With heatsink	0.8							
T _J	Operation Temperature Range	-55 to +150							°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.

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Please refer to <http://www.born-tw.com> for current information.

Revision: 2022-Jan-1



Ratings And Characteristic Curves

Figure 1: Output Current Derating Curve

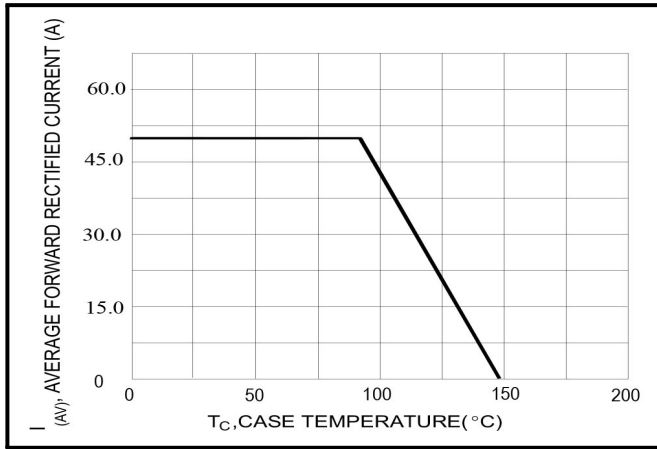


Figure 2: Typical Forward Characteristics (per leg)

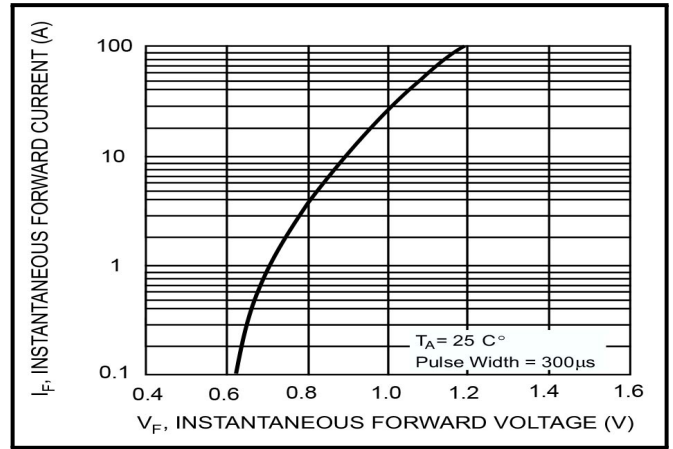


Figure 3: Maximum Peak Forward Surge Current (per leg)

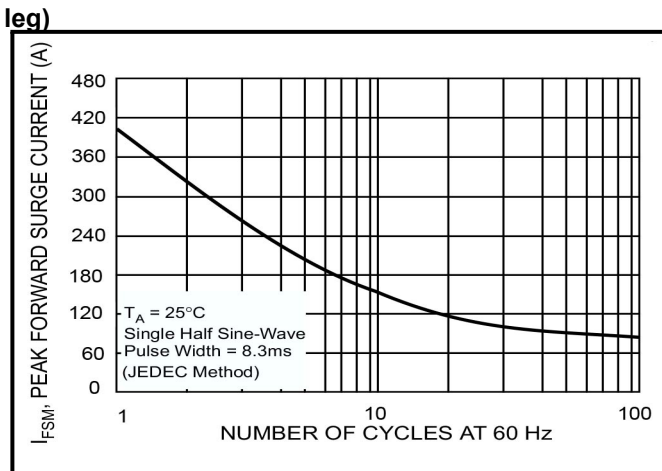


Figure 4: Typical Junction Capacitance

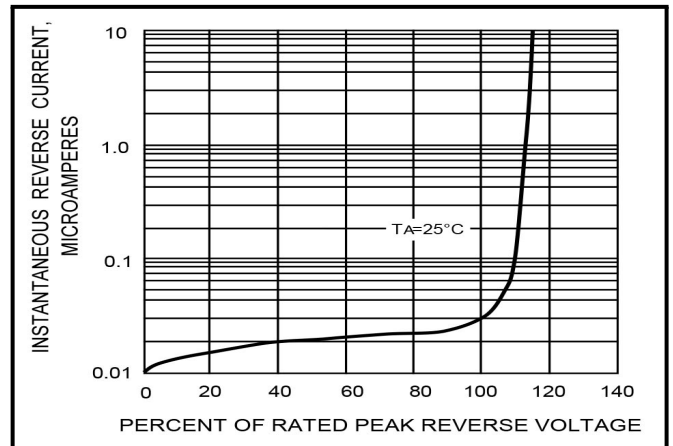
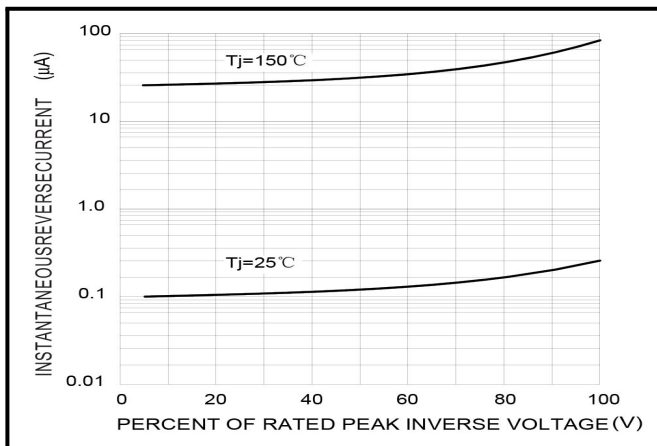


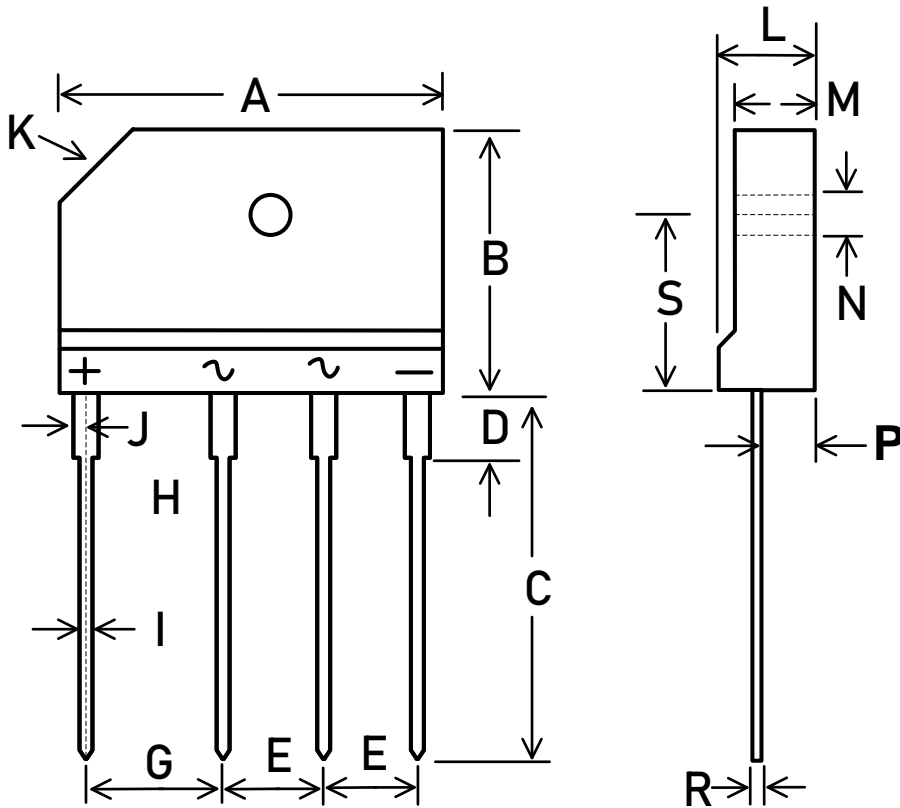
Figure 5: TYPICAL REVERSE CHARACTERISTICS



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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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