

GBJ20005 THRU GBJ2010

Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 20 A

Features

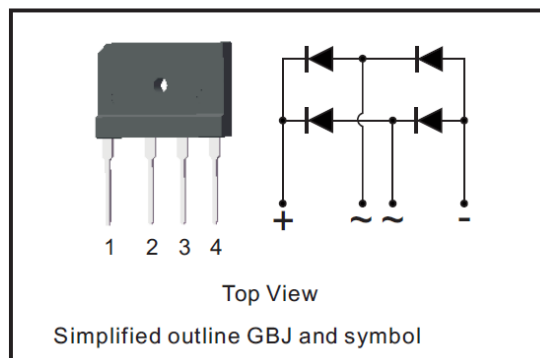
- Ideal for printed circuit boards
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L
- The flammability classification 94V-0

Mechanical Data

- Case: GBJ
- Polarity: As marked on body
- Mounting position : Any

PINNING

PIN	DESCRIPTION
1	Output Anode (+)
2	Input Pin (~)
3	Input Pin (~)
4	Output Cathode (-)



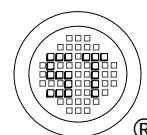
Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	GBJ 20005	GBJ 2001	GBJ 2002	GBJ 2004	GBJ 2006	GBJ 2008	GBJ 2010	Units
	Marking	GBJ 20005G	GBJ 2001G	GBJ 2002G	GBJ 2004G	GBJ 2006G	GBJ 2008G	GBJ 2010G	-
Maximum Recurrent 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 ²⁾	$I_{(AV)}$	20							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	I_{FSM}	270							A
Maximum Forward Voltage at 10 A DC	V_F	1							V
Maximum Reverse Current at $T_J = 25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_J = 125\text{ }^{\circ}\text{C}$	I_R	5 500							μA
Typical Junction Capacitance ¹⁾	C_j	70							pF
I^2t Rating for Fusing at $t \leq 8.3\text{ ms}$	I^2t	300							A^2s
Typical Thermal Resistance ²⁾	$R_{\theta JC}$	1.2							$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	- 55 to + 150							$^{\circ}\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150							$^{\circ}\text{C}$

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

²⁾ Device mounted on 150mm*150mm*1.6mm Cu Plate Heatsink.



Electrical characteristic curves

FIG.1-FORWARD CURRENT DERATING CURVE

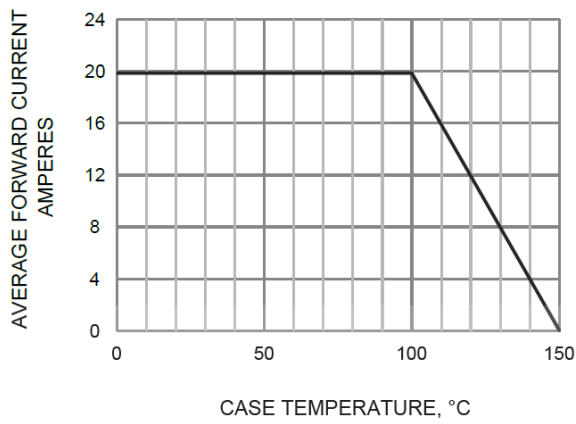


FIG.2-MAXIMUM FOWARD SURGE CURRENT

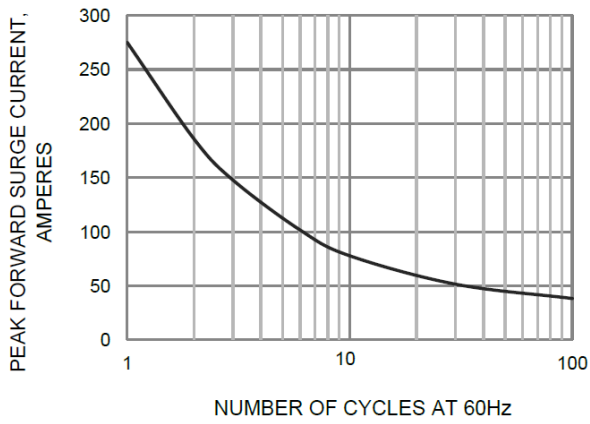


FIG.3-TYPICAL JUNCTION CAPACITANCE

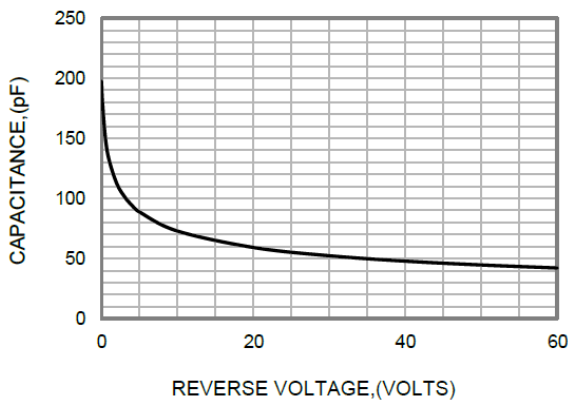


FIG.4-TYPICAL FORWARD CHARACTERISTICS

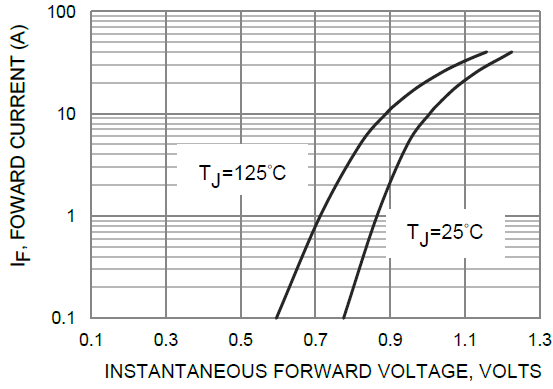
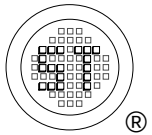
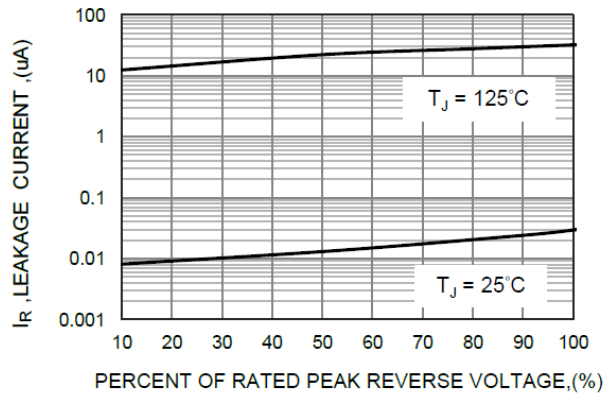
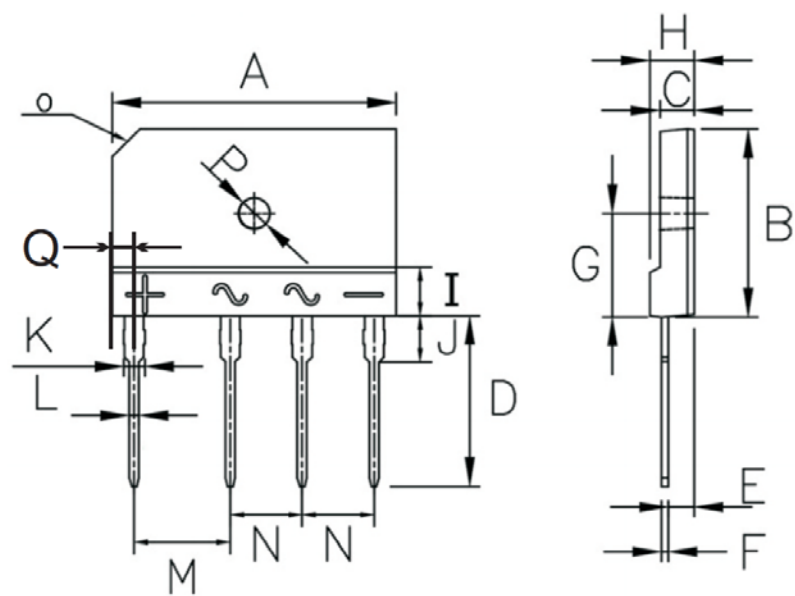


FIG.5-TYPICAL REVERSE CHARACTERISTICS





Unit		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
MM	Max	30.30	20.30	3.80	18.00	2.90	0.80	11.2	4.80	5.80	4.20	2.40	1.15	10.20	7.70	C3.0	Φ3.6	2.7
	Min	29.70	19.70	3.40	17.00	2.50	0.55	10.8	4.40	4.80	3.80	2.00	0.90	9.8	7.30		Φ3.0	2.3
Mil	Max	1193	799	150	709	114	31	441	189	228	165	94	45	402	303	C118	Φ142	106
	Min	1169	776	134	669	98	22	425	173	189	150	79	35	386	287		Φ118	90

Marking information

"XXXXXXXX" = Part No.
"YYWW" = Date Code Marking
"Y" = Year (ex: 19 = 2019)
"W" = Week (ex: 09 = the 9th week of the year)
Font type: Arial

