GBJ8005 Thru GBJ810

SINGLE PHASE 8.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

RoHS COMPLIANT

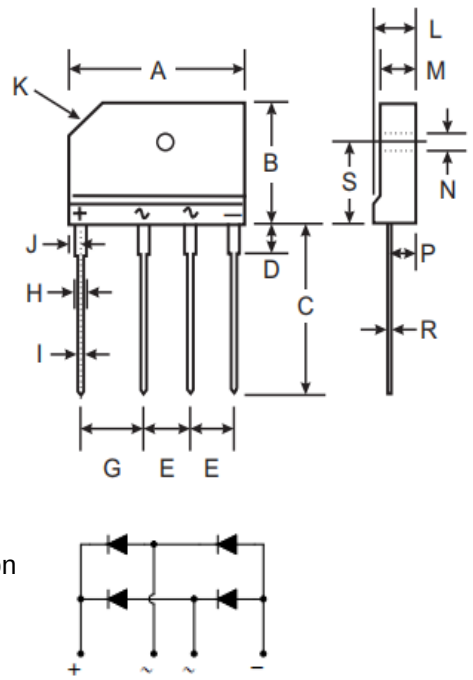
Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

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

GBJ



GBJ		
Dim	Min	Max
A	29.70	30.30
B	19.70	20.30
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	3.0 X 45°	
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
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

NUMBER	SYMBOL	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 2)@T_C=90℃	IF(AV)	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	127.09							A^2s
Forward Voltage per element @IF=4A @IF=8A	V_{FM}	1.0 1.1							V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 500							uA
Typical Junction Capacitance per leg	C_J	55							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	24							℃/W
Between junction and case, With heatsink	$R_{\theta JC}$	1.6							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.

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Fig. 1 Output Current Derating Curve

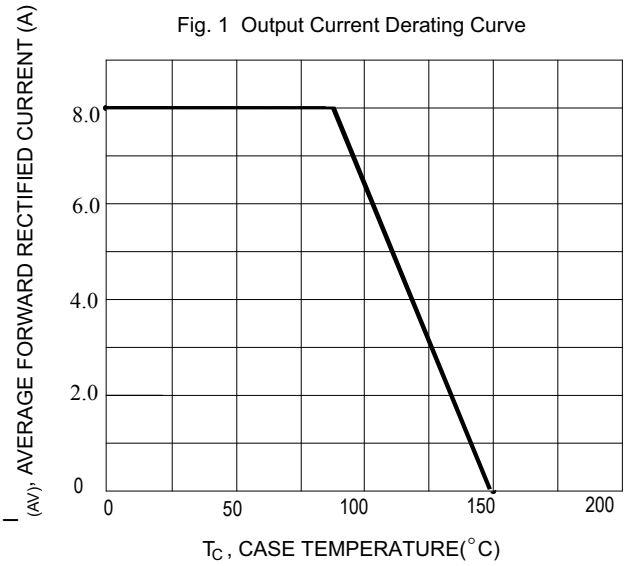

Fig. 2 Typical Forward Characteristics (per leg)

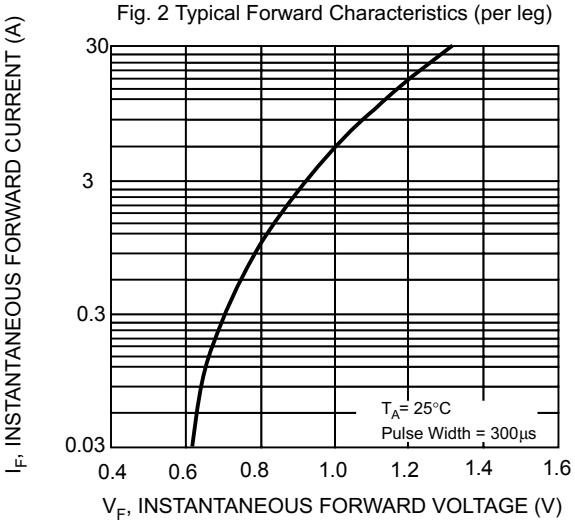

Fig. 3 Maximum Peak Forward Surge Current (per leg)

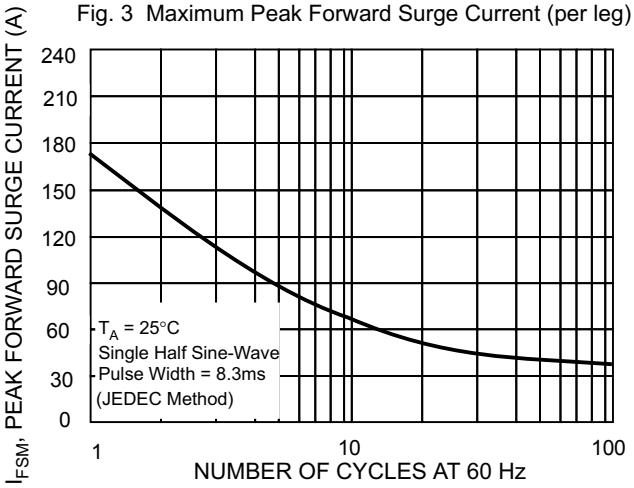

Fig. 4 Typical Junction Capacitance

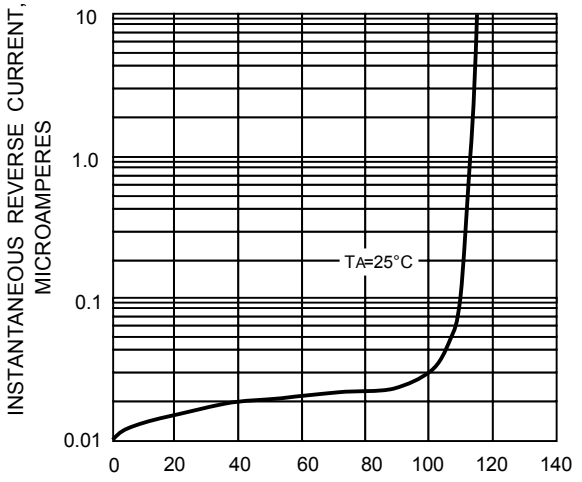

FIG.5 TYPICAL REVERSE CHARACTERISTICS