

RoHS Compliant Product

**FEATURES**

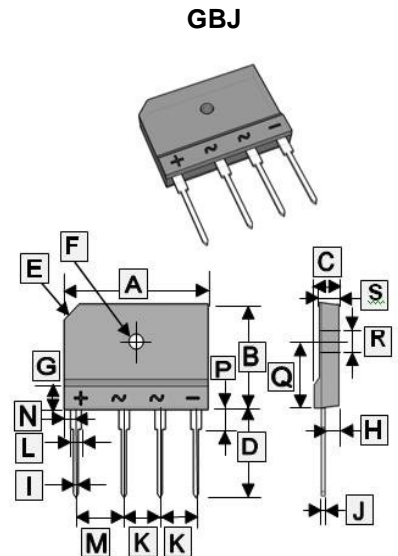
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Plastic Material-UL Flammability 94V-0

**MECHANICAL DATA**

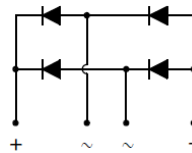
- Case: Molded plastic, GBJ
- Terminals: Plated Leads Solderable Per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

**ORDER INFORMATION**

Part Number	Type
GBJ50005A~GBJ5010A	Lead (Pb)-free
GBJ50005AH~GBJ5010AH	Lead (Pb)-free and Halogen-free



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	29.7	30.3	J	0.5	0.7
B	19.7	20.3	K	7.3	7.7
C	4.4	4.8	L	1.9	2.3
D	16.0	18.0	M	9.0	11.0
E	3.0±0.1 x 45°		N	2.3	2.7
F	φ 3.3	φ 3.7	P	3.8	4.2
G	4.8	5.2	Q	10.8	11.2
H	2.4	2.8	R	3.1	3.4
I	0.9	1.1	S	3.4	3.8



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(Rating at 25°C ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number							Unit
		GBJ 50005A	GBJ 5001A	GBJ 5002A	GBJ 5004A	GBJ 5006A	GBJ 5008A	GBJ 5010A	
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	
Average Rectified Output Current <sup>1</sup> @T <sub>C</sub> =90°C	$I_{F(AV)}$	50							A
Non-Repetitive Peak Forward Surge Current @8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	450							A
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	840							A <sup>2</sup> S
Forward Voltage Per Element @I <sub>F</sub> =25A	$V_{FM}$	1.1							V
Peak Reverse Current @Rated DC Blocking Voltage	T <sub>J</sub> =25°C	5							µA
	T <sub>J</sub> =125°C	200							
Typical Junction Capacitance <sup>2</sup>	$C_J$	140							pF
Between Junction-Ambient, Without Heatsink	R <sub>θJA</sub>	22							°C/W
Between Junction-Case, With Heatsink	R <sub>θJC</sub>	0.8							
Operating & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150							°C

Notes:

1. Unit case mounted on aluminum plate heatsink.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

Fig. 1 Output Current Derating Curve

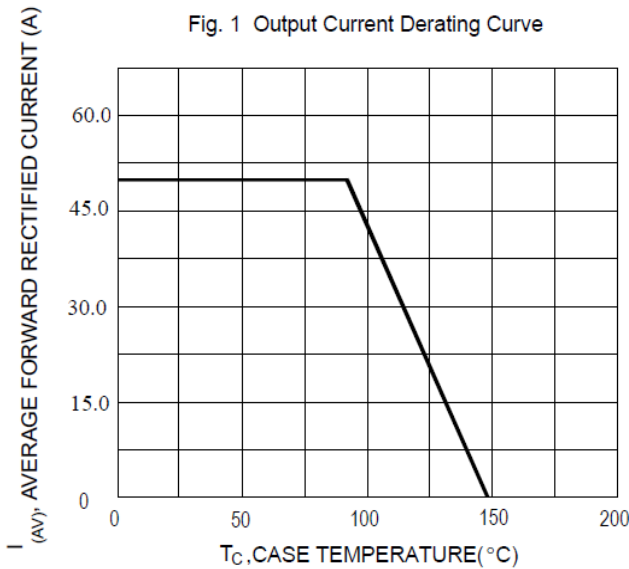


Fig. 2 Typical Forward Characteristics

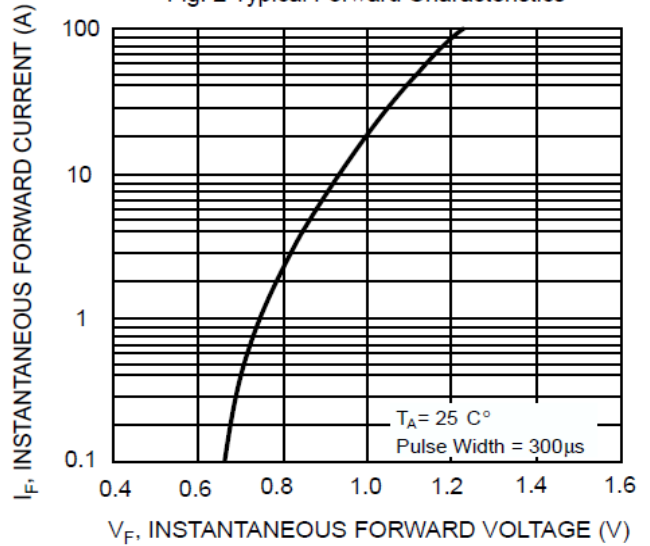


Fig. 3 Maximum Peak Forward Surge Current

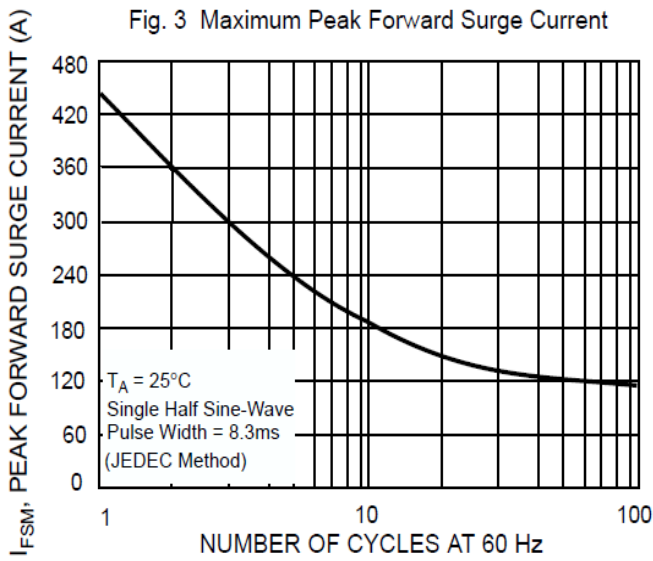


Fig. 4 Typical Junction Capacitance

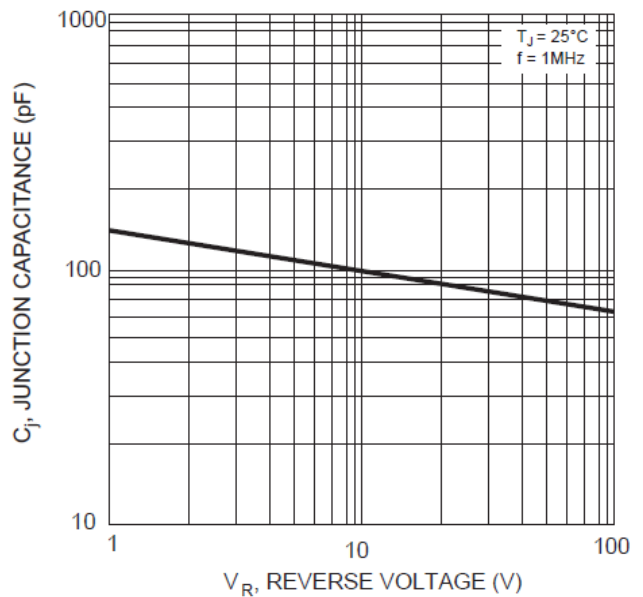


Fig. 5 Typical Reverse Characteristics

