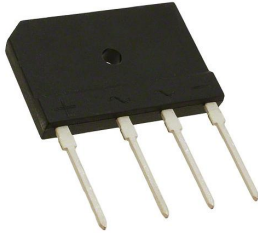


GBJ15005-GBJ1510

Single-Phase 15.0A Glass Passivated Bridge Rectifier

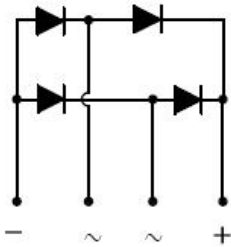


GBJ

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: GBJ, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version
- Weight: 6.8 grams(approx)

Maximum Ratings @T_A=25°C unless otherwise specified

Type Number	Symbol	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	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 (with heatsink)@T _C = 100°C (without heatsink)@T _A = 25°C	$I_{F(AV)}$	15 3.5							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) @T _J = 25°C @T _J = 125°C	I_{FSM}	300 240							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	373.5							A ² s

Electrical Characteristics@T_A=25°C unless otherwise specified

Type Number	Symbol	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Units
Forward Voltage (per element) @I _F =7.5A @I _F =15A	V _F				1.0 1.1				V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}				5 200				μA
The proposed installation torque Max torque	T _{or}				Typ. 5.0 Max 8.0				Kgf.cm
Typical Junction Capacitance(per leg) (Note 1)	C _J				75				pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Type Number	Symbol	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Units
Typical Thermal Resistance Junction	R _{θJA} R _{θJL} R _{θJC}				18 5 1.5				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}				-55 to +150				°C

Note: 1-Measured at 1 MHZ and applied reverse voltage of 4.0 VDC.

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

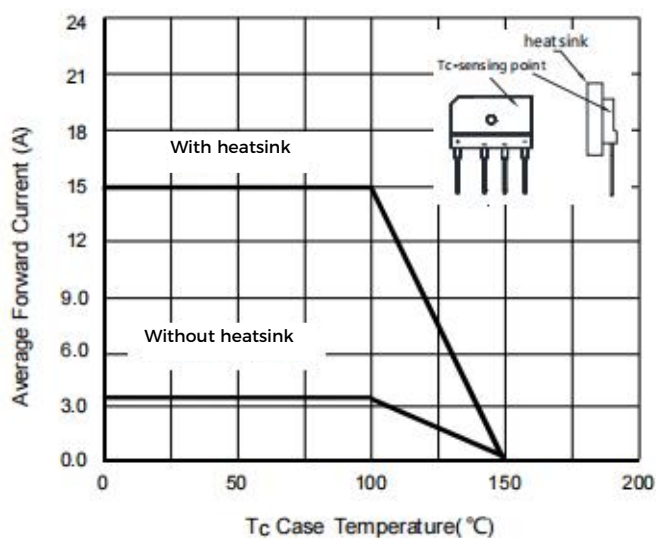


Fig. 2 Typical Forward Characteristics

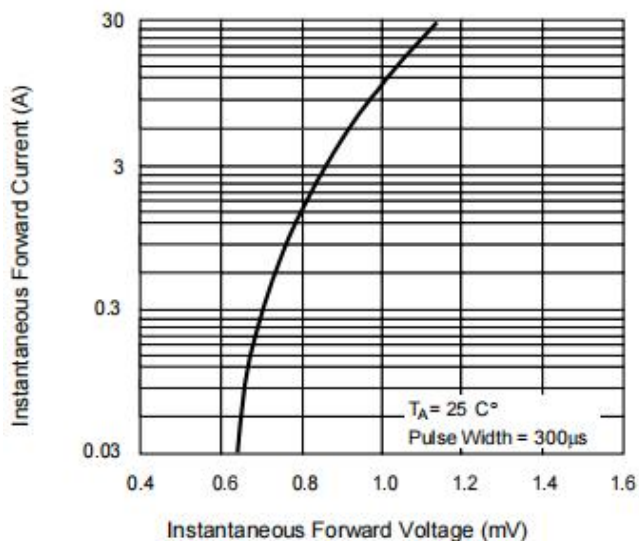


Fig. 3 Forward Surge Current Capability

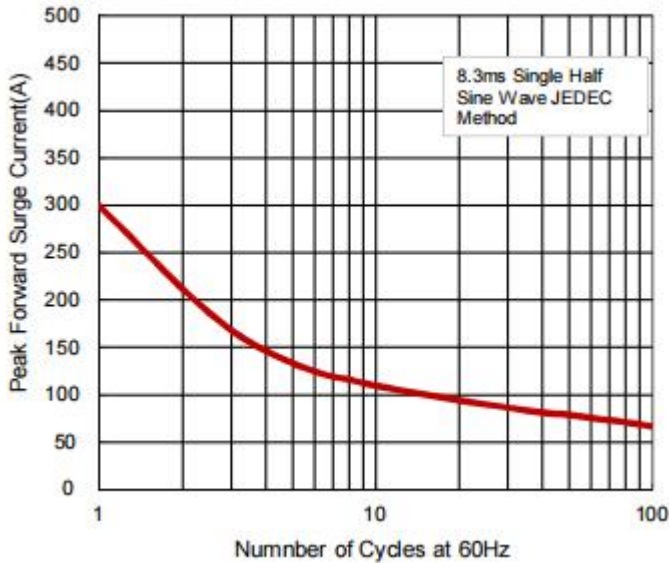
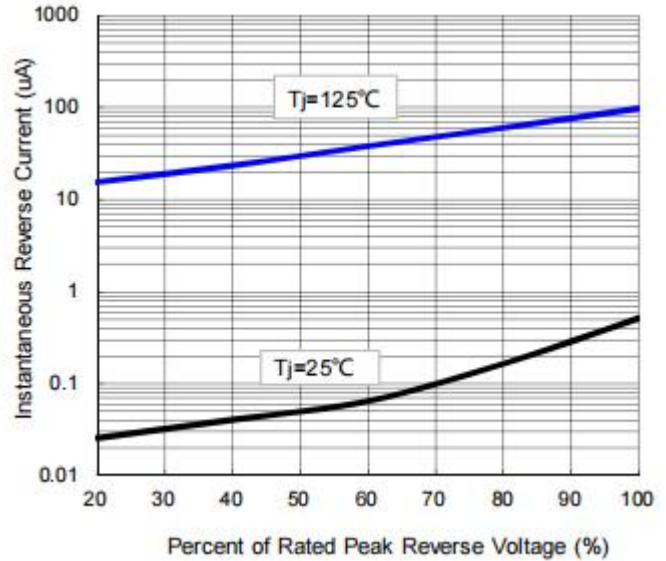


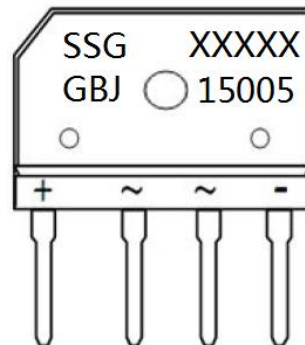
Fig. 4 Typical Reverse Characteristics



Ordering Information

Device	Package	Plating	Shipping
GBJ15005 THRU GBJ1510	GBJ(Pb-Free)	Pure Sn	15pcs / tube

Marking Diagram

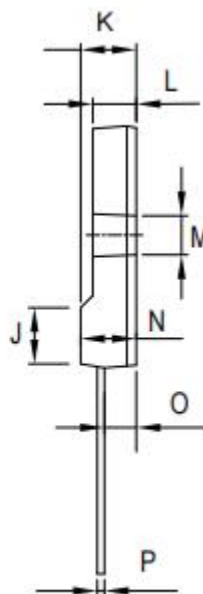
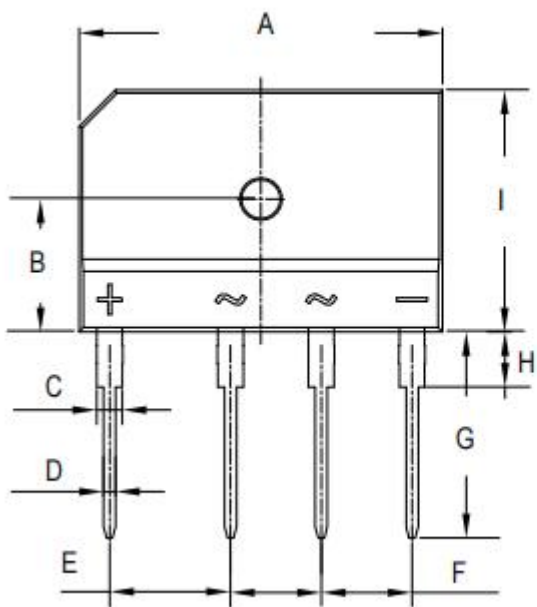


Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
GBJ15005 = Type Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Mechanical Dimensions GBJ (Inches/Millimeters)



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	29.7	30.3	1.169	1.193
B	10.8	11.2	0.425	0.441
C	1.9	2.3	0.075	0.091
D	0.9	1.1	0.035	0.043
E	9.8	10.2	0.386	0.402
F	7.3	7.7	0.287	0.303
G	17.0	18.0	0.699	0.709
H	3.8	4.2	0.150	0.165
I	19.7	20.3	0.776	0.799
J	4.8	5.2	0.189	0.205
K	4.4	4.8	0.173	0.189
L	3.4	3.8	0.134	0.150
M	3.1	3.4	0.122	0.134
N	4.4	4.8	0.173	0.189
O	2.4	2.8	0.094	0.110
P	0.5	0.7	0.020	0.028

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