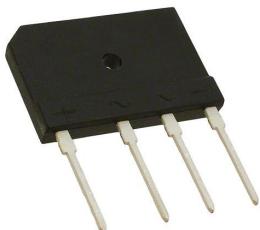


GBJ1510-A

Single-Phase 15.0A Glass Passivated Bridge Rectifier

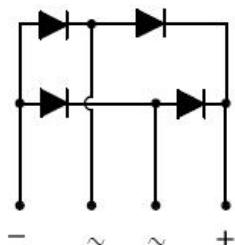


GBJ

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- “-A” is an AEC-Q101 qualified device
- 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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	GBJ1510-A	Units
Marking code		GBJ1510	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	1000	V
RMS Reverse Voltage	V_{RMS}	700	V
Average rectified output current (with heatsink)@ $T_c = 100^\circ\text{C}$ (without heatsink)@ $T_A = 25^\circ\text{C}$	$I_{F(AV)}$	15 3.5	A
Peak Forward Surge Current,8.3ms single half-sine-wave superimposed on rated load (JEDEC method) @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$	I_{FSM}	300 240	A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	373.5	A^2s

Electrical Characteristics@ $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	GBJ1510-A	Units
Forward Voltage (per element) @ $I_F = 7.5\text{A}$ @ $I_F = 15\text{A}$	V_F	1.0 1.1	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	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	GBJ1510-A	Units
Typical Thermal Resistance Junction	$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	18 5 1.5	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J , T_{STC}	-55 to +150	$^\circ\text{C}$

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

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

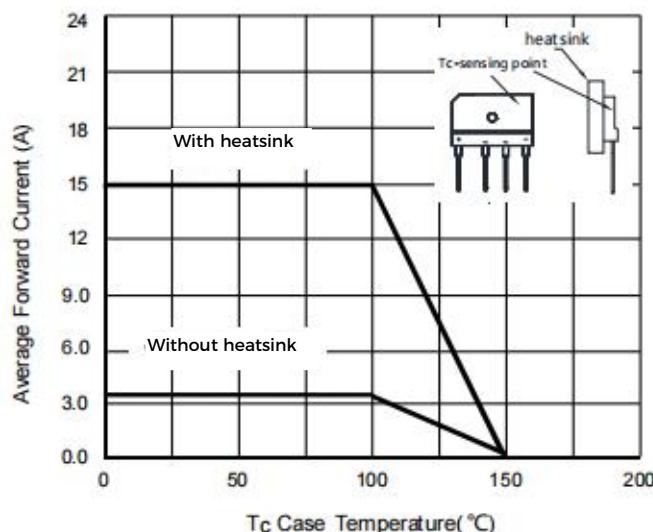


Fig. 2 Typical Forward Characteristics

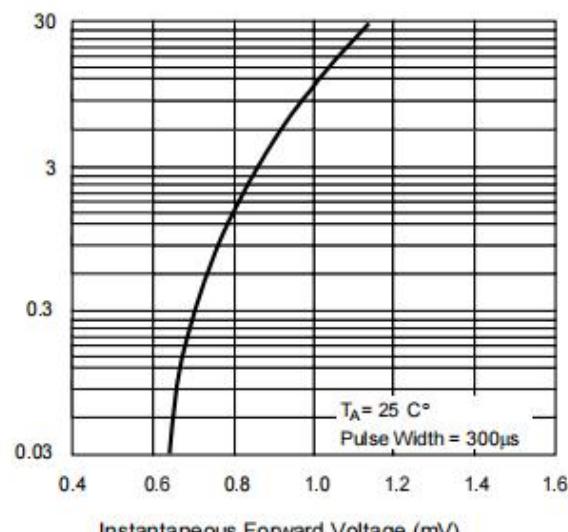


Fig. 3 Forward Surge Current Capability

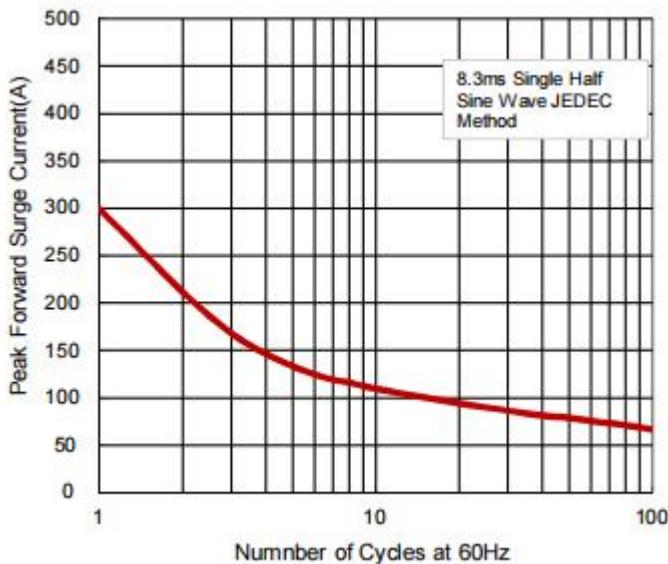
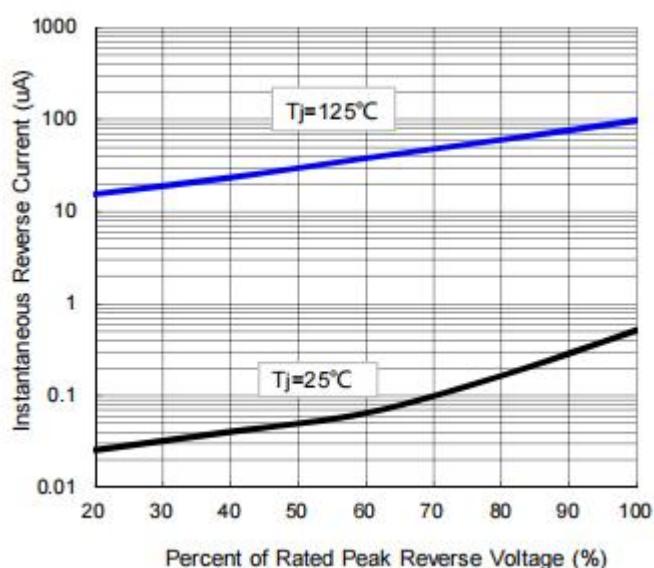


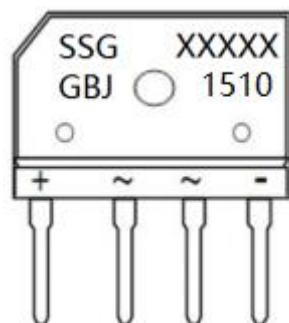
Fig. 4 Typical Reverse Characteristics



Ordering Information

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

Marking Diagram

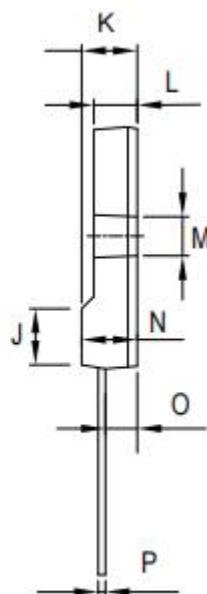
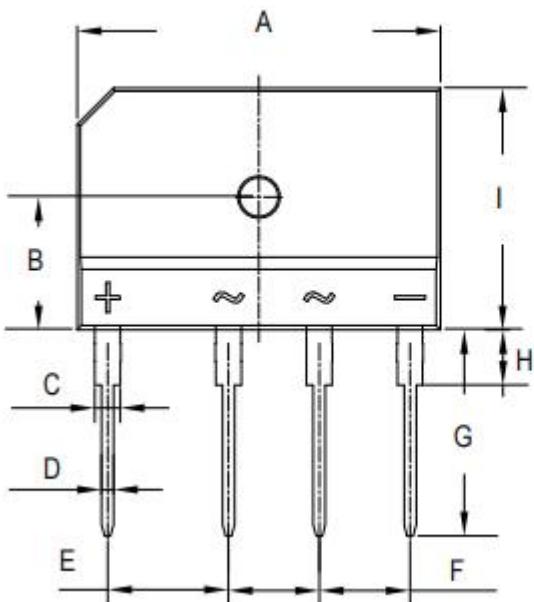


Where XXXXX is YYWWL

SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number
GBJ1510	= Marking code

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

Technical Data
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