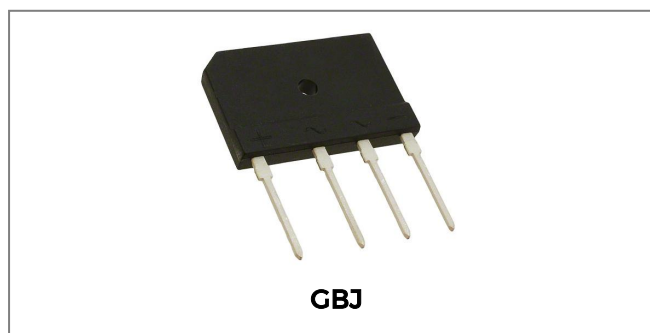


## GBJ1510-A

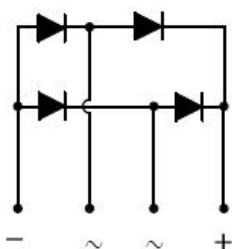
### Single-Phase 15.0A Glass Passivated Bridge Rectifier



#### 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<sub>A</sub>=25°C unless otherwise specified

Type Number	Symbol	GBJ1510-A	Units
Marking code		<b>GBJ1510</b>	
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 <sub>C</sub> = 100°C (without heatsink)@T <sub>A</sub> = 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 <sub>J</sub> = 25°C @T <sub>J</sub> = 125°C	$I_{FSM}$	300 240	A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	373.5	A <sup>2</sup> s

**Electrical Characteristics@T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	GBJ1510-A	Units
Forward Voltage (per element) @I <sub>F</sub> =7.5A @I <sub>F</sub> =15A	V <sub>F</sub>	1.0 1.1	V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5 200	μA
The proposed installation torque Max torque	T <sub>or</sub>	Typ. 5.0 Max 8.0	Kgf.cm
Typical Junction Capacitance(per leg) (Note 1)	C <sub>J</sub>	75	pF

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

**Thermal-Mechanical Specifications:**

Type Number	Symbol	GBJ1510-A	Units
Typical Thermal Resistance Junction	R <sub>θJA</sub> R <sub>θJL</sub> R <sub>θJC</sub>	18 5 1.5	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-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

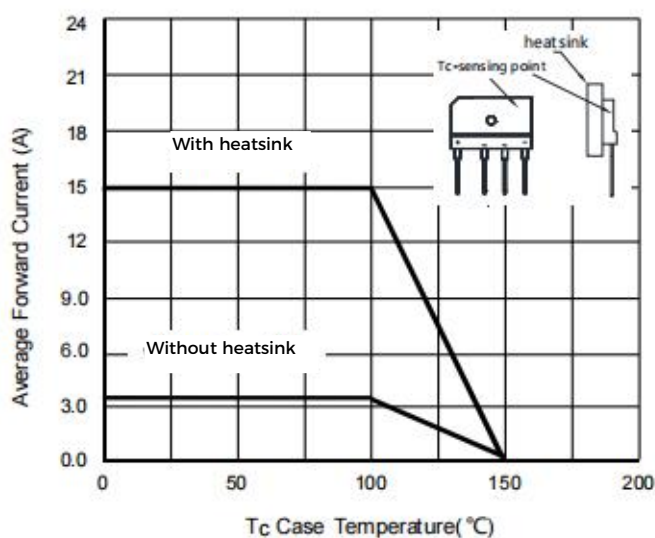


Fig. 2 Typical Forward Characteristics

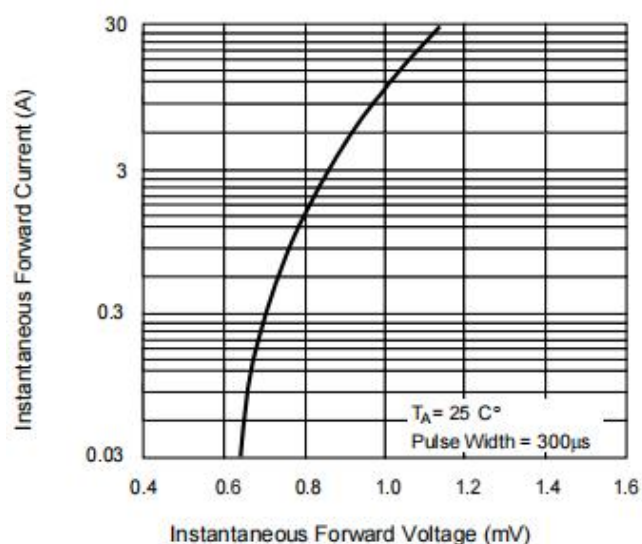


Fig. 3 Forward Surge Current Capability

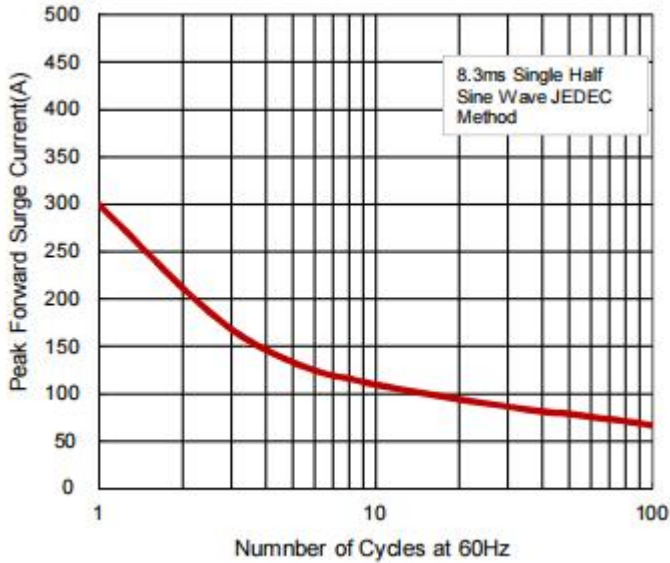
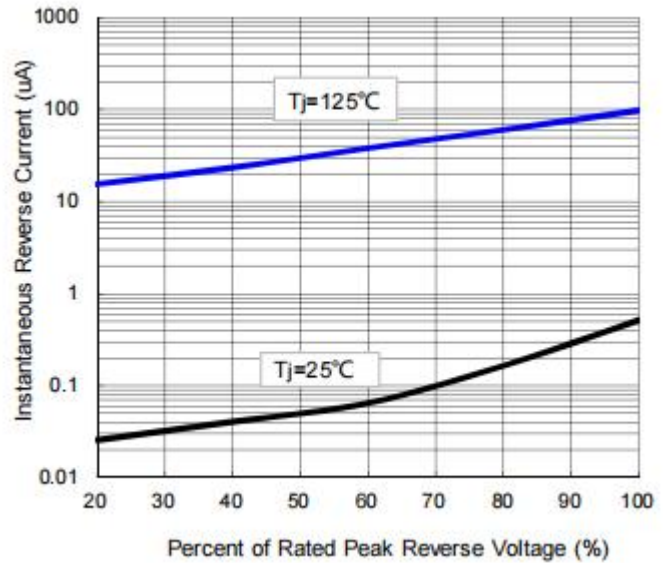


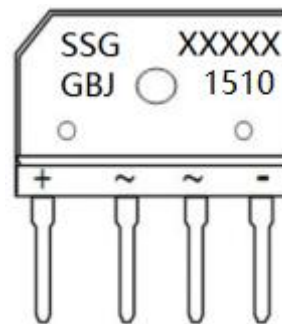
Fig. 4 Typical Reverse Characteristics



## Ordering Information

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

## Marking Diagram

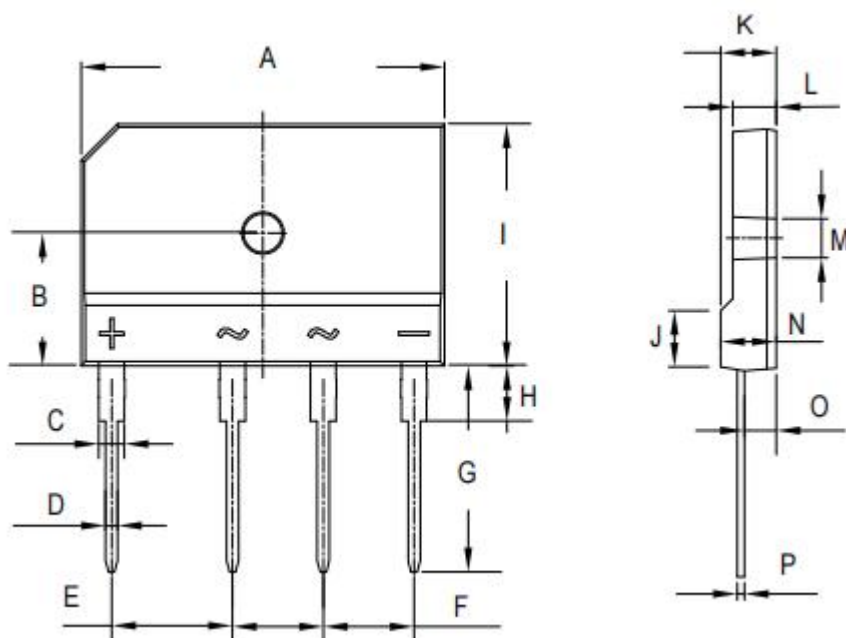


Where XXXXX is YYWWL

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

**Cautions:** Molding resin  
Epoxy resin UL94V-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**  
**Data Sheet N2303, Rev. A**

***Automotive Qualified***

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