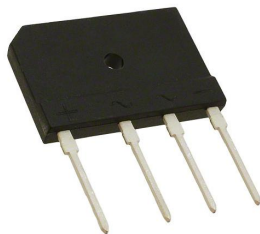


GBJ5006L

Single-Phase 50A Glass Passivated Bridge Rectifier

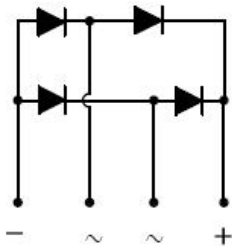


GBJ

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	GBJ5006L	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	600	V
RMS Reverse Voltage	V_{RMS}	420	V
Average Rectified Output Current (Note 2) @T _c = 90°C	$I_{(AV)}$	50	A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	450	A
I ² t Rating for Fusing (t<8.3ms)	I ² t	840.375	A ² s

Electrical Characteristics@T_A=25°C unless otherwise specified

Type Number	Symbol	Min.	Typ.	Max.	Units
Break Voltage* @ IR=100uA	V _{BR}	600	945	1100	V
Forward Voltage per element* @ I _F =25A	V _F	0.90	0.95	0.97	V
Peak Reverse Current* @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	0	0.3 80	5 500	μA
Dielectric Strength	V _{ids}	-	-	2500	V
The proposed installation torque	T _{or}	-	5.0	8.0	Kgf.cm
Junction Capacitance(Per Element) (Note 1)	C _J	-	85	-	pF

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

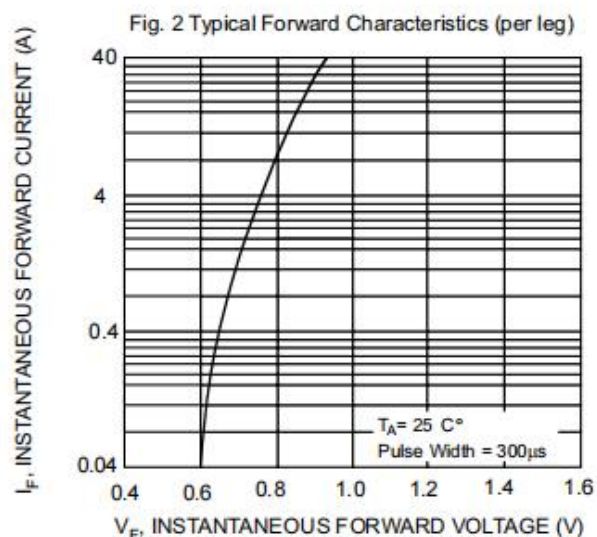
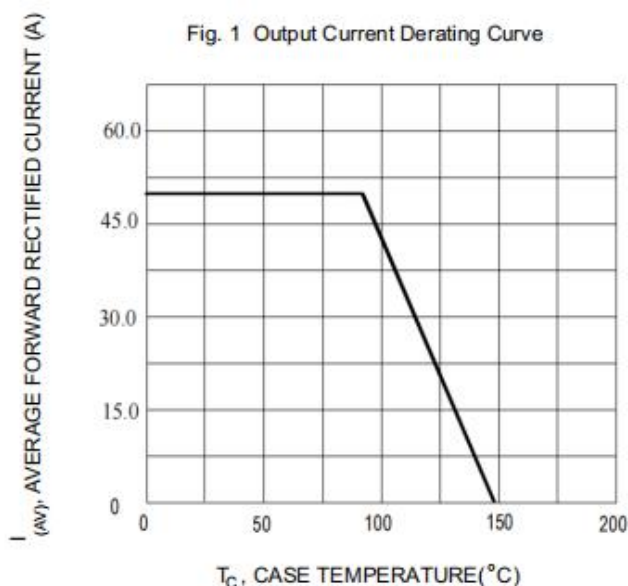
Thermal-Mechanical Specifications:

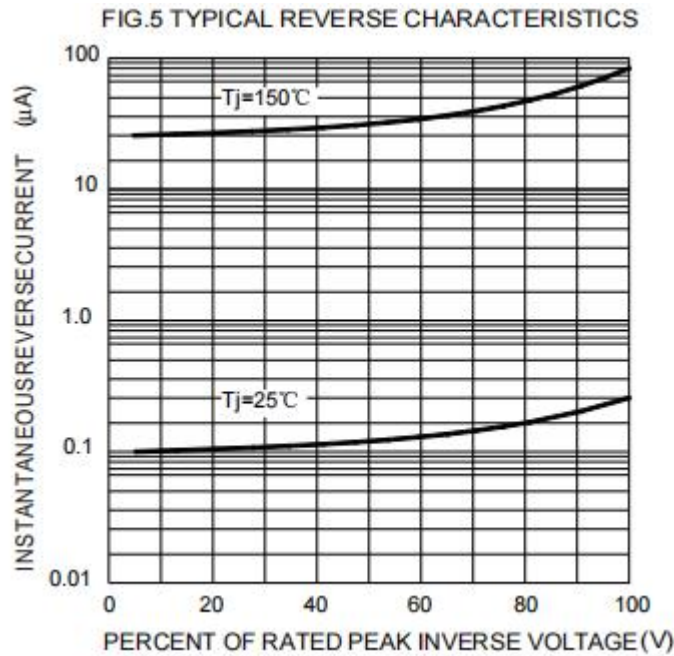
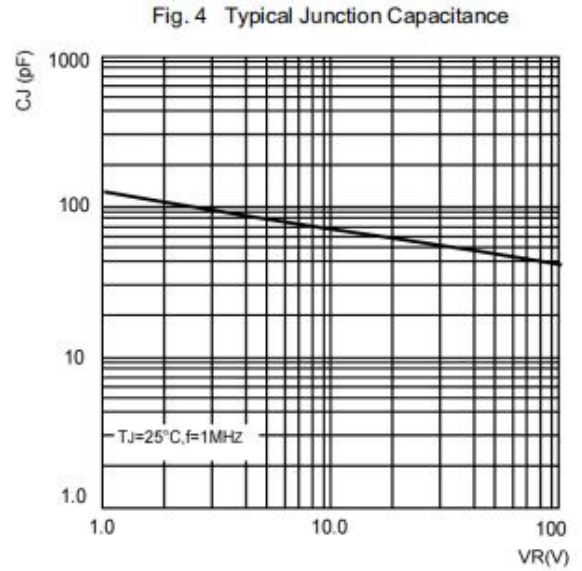
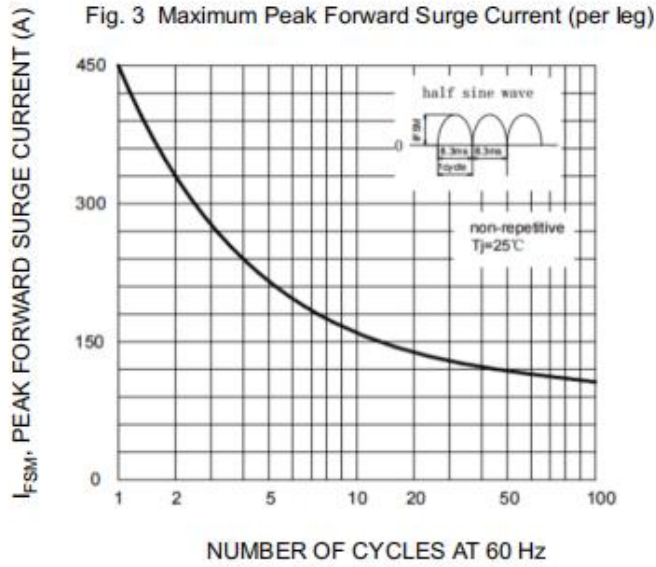
Type Number	Symbol	GBJ5006L	Units
Between junction and case, With heatsink	R _{θJC}	1	°C/W
Between junction and ambient, Without heatsink	R _{θJA}	22	
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Note: 1. Measured at 1.0MHz 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.

Ratings and Characteristics Curves

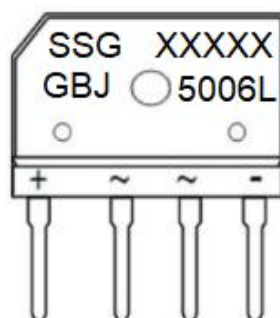




Ordering Information

Device	Package	Plating	Shipping
GBJ5006L	GBJ(Pb-Free)	Pure Sn	15pcs / tube

Marking Diagram

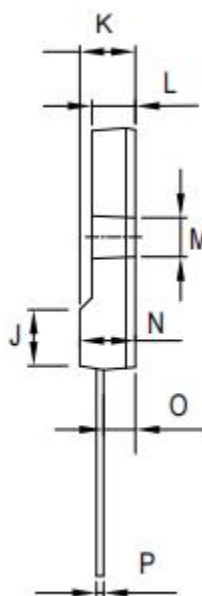
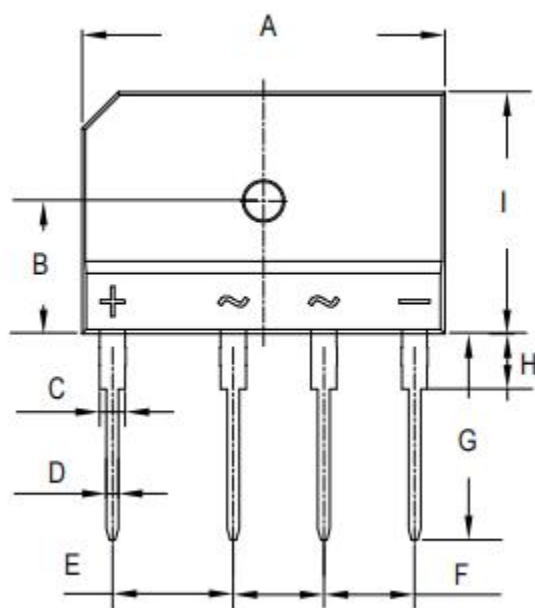


Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
GBJ5006L = Type Number

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	4.40	4.80	0.173	0.189
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	2.5	2.9	0.098	0.114
P	0.6	0.8	0.023	0.031

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