

Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage - 800 to 1600 V

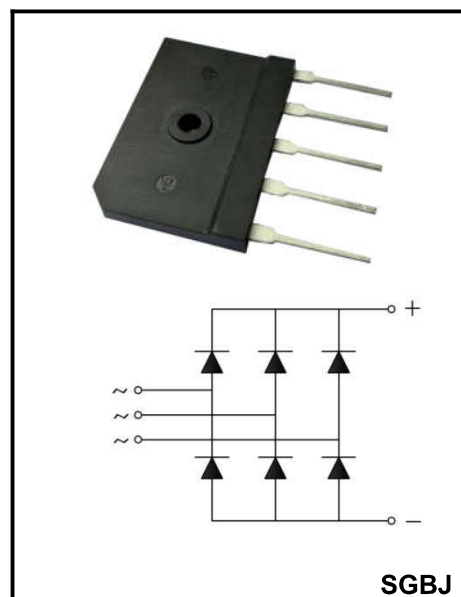
Forward Current –15A

Features

- ◆Glass passivated die construction
- ◆Ideal for printed circuit boards
- ◆High surge current capability
- ◆High temperature soldering guaranteed:
265°C /10 seconds, 0.375" (9.5mm) lead
length, 5lbs. (2.3kg) tension

Mechanical Data

- ◆Case: Molded plastic case
- ◆Terminals: Plated leads solderable per
MIL-STD-750, Method 2026
- ◆Polarity: Marked on Body
- ◆Mounting Position: Any



Maximum Ratings and Thermal Characteristics

TA = 25°C unless otherwise noted

Conditions	Symbols	SGBJ1508	SGBJ1510	SGBJ1512	SGBJ1514	SGBJ1516	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	1000	1200	1400	1600	V
Maximum RMS voltage	V_{RMS}	900	1100	1300	1500	1700	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	1200	1400	1600	V
average forward output current sine wave ,R-load Tc =100°C	I_D	15					A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) 50Hz Tj=25°C	I_{FSM}	250					A
Rating for fusing (t=1~10ms)	I^2t	312					A ² s
A.C.50/60Hz;R.M.S.;1min	V_{ISO}	2500					V
Operating Junction and storage temperature range	T_j, T_{stg}	-40 to +150					°C
Mounting Torque (Recommended torque:0.65 N·m)	M_S	0.8					N·m
Approximate Weight	W_t	10					g

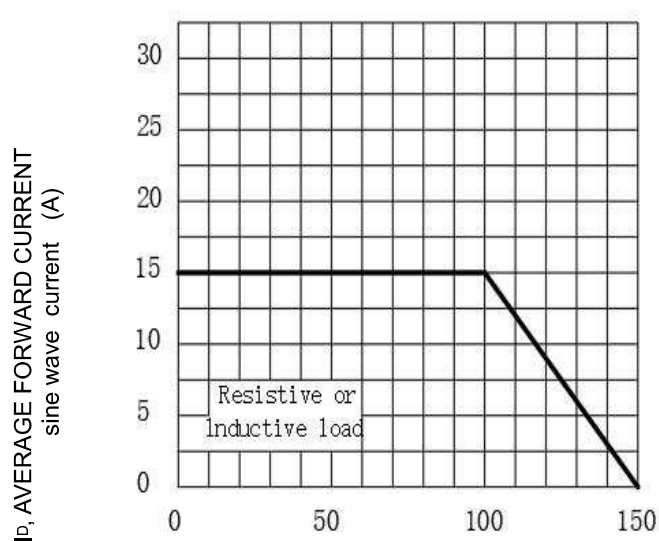
Electrical Characteristics

TA = 25°C unless otherwise noted

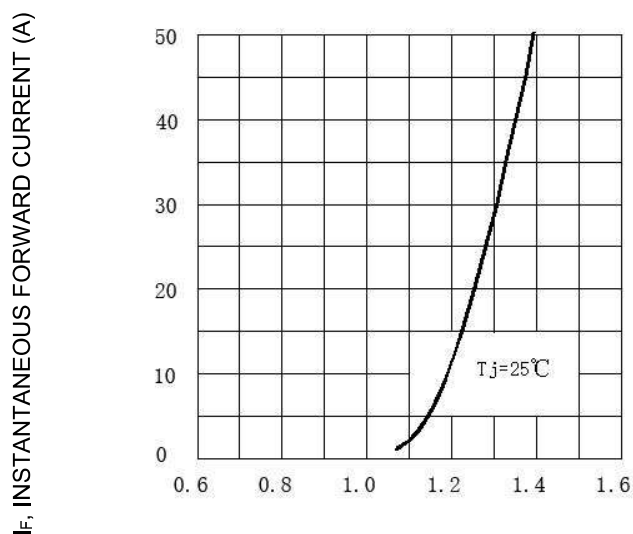
Conditions	Symbol	Values	Units
Maximum Forward Voltage per leg $I_F = 7.5A \quad T_j = 25^\circ C$	V_{FM}	1.18	V
Maximum reverse current at rated blocking voltage per leg $T_j = 150^\circ C$	I_{RRM}	3	mA
Maximum thermal resistance per ⁽¹⁾ per diode total	$R_{th(j-c)}$	9 1.5	°C/W

Notes: (1) Junction to case

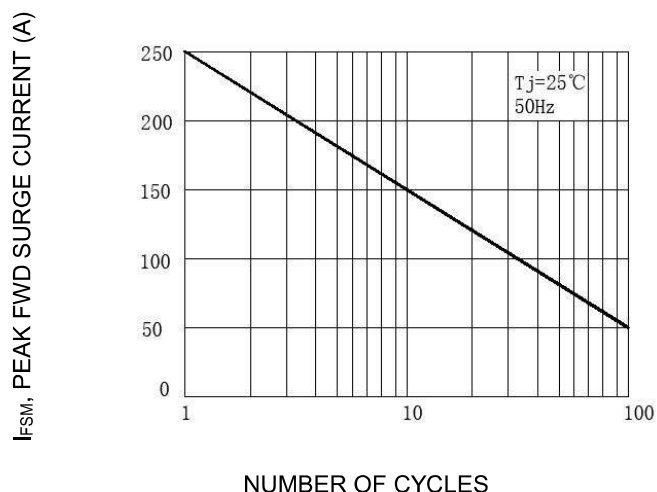
Performance Curves



T_C , TEMPERATURE ($^{\circ}C$)
Fig.1 Forward Current Derating Curve

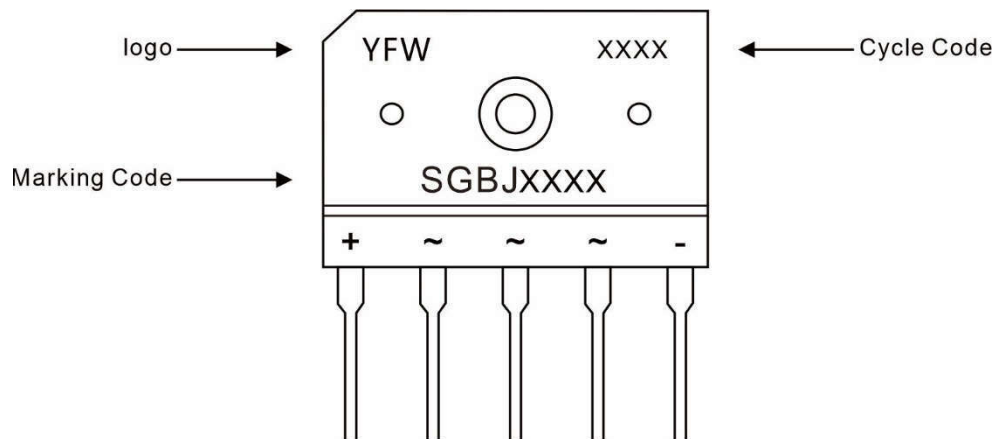


V_F , INSTANTANEOUS FWD VOLTAGE (V)
Fig.2 Maximum Forward Characteristics, per element



NUMBER OF CYCLES
Fig.3 Max Non-Repetitive Surge Current

Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
SGBJ	bulk	200PCS/Box 2000PCS/Carton

Package Dimensions

SGBJ

Dim.	Millimeter(mm)		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	34.50	35.50	1.36	1.40
B	24.50	25.50	0.96	1.00
C	2.90	3.50	0.11	0.14
D	16.60	17.60	0.65	0.69
E	3.70	4.30	0.15	0.17
F	2.20	2.80	0.09	0.11
G	2.00	2.60	0.08	0.10
H	0.90	1.10	0.04	0.04
I	7.20	7.80	0.28	0.31
J	4.30	4.90	0.17	0.19
K	3.40	4.00	0.13	0.16
L	0.20	0.80	0.01	0.03
M	13.80	14.40	0.54	0.57
N	2.50	2.90	0.10	0.11
O	0.55	0.75	0.02	0.03

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