

**Glass Passivated Three Phase Bridge Rectifiers**

**Voltage - 800 to 1600 V**

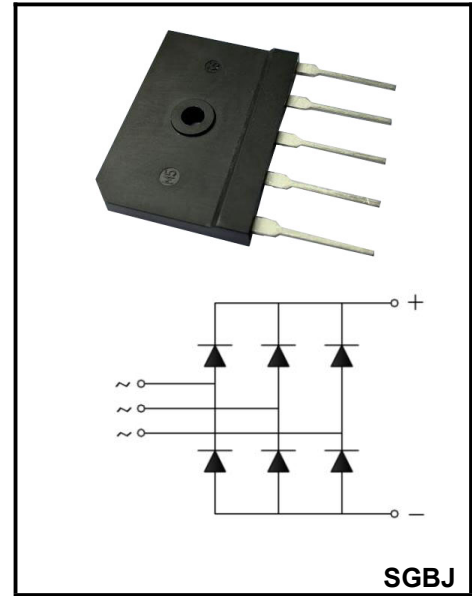
**Forward Current – 25A**

**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)**

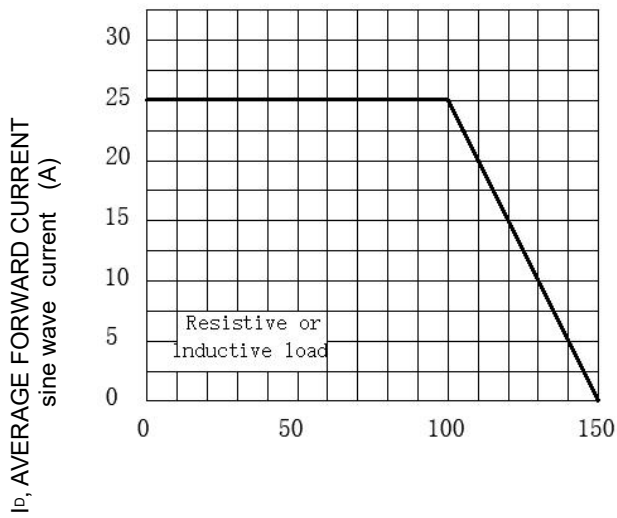
Conditions	Symbol	SGBJ2508	SGBJ2510	SGBJ2512	SGBJ2514	SGBJ2516	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	800	1000	1200	1400	1600	V
Maximum RMS voltage	$V_{RMS}$	900	1100	1300	1500	1700	V
Maximum DC Blocking Voltage	$V_{DC}$	800	1000	1200	1400	1600	V
average forward output current sine wave ,R-load Tc =100°C	$I_D$	25					A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) 50Hz Tj=25°C	$I_{FSM}$	350					A
Rating for fusing (t=1~10ms)	$I^2t$	612					A <sup>2</sup> 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)**

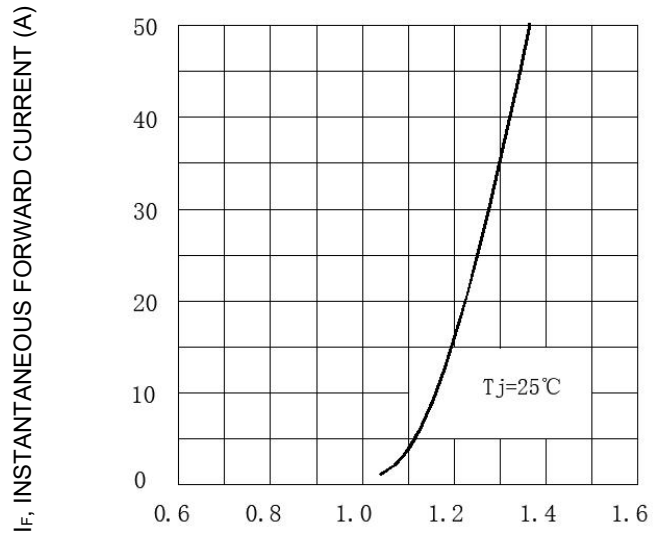
Conditions	Symbol	Values	Units
Maximum Forward Voltage per leg $I_F = 12.5A$ $T_j = 25^\circ C$	$V_{FM}$	1.18	V
Maximum reverse current at rated blocking voltage per leg $T_j = 150^\circ C$	$I_{RRM}$	3	mA
Maximum thermal resistance per <sup>(1)</sup> per diode total	$R_{th(j-c)}$	9 1.5	°C/W

Notes: (1) Junction to case

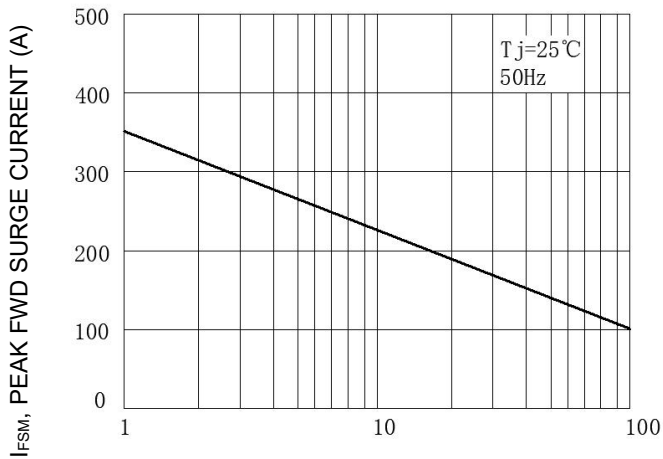
**Performance Curves**



$T_C$ , TEMPERATURE (°C)  
Fig.1 Forward Current Derating Curve

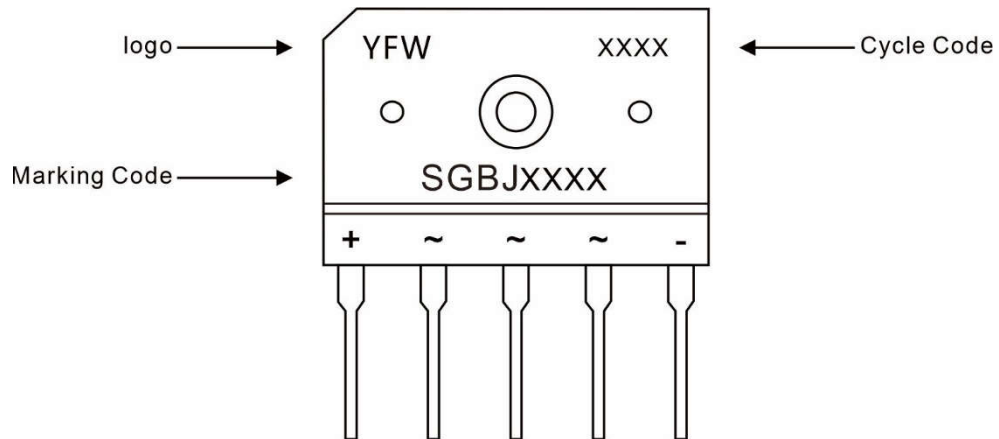


$V_F$ , INSTANTANEOUS FWD VOLTAGE (V)  
Fig.2 Maximum Forward Characteristics, per element



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

**Marking Diagram**



**Ordering information**

Package	Packing Description	Packing Quantity
SGBJ	bulk	100PCS/Box 1000PCS/Carton

**Package Dimensions**

**SGBJ**

Dim.	Millimeter(mm)		DimensionsinInch	
	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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