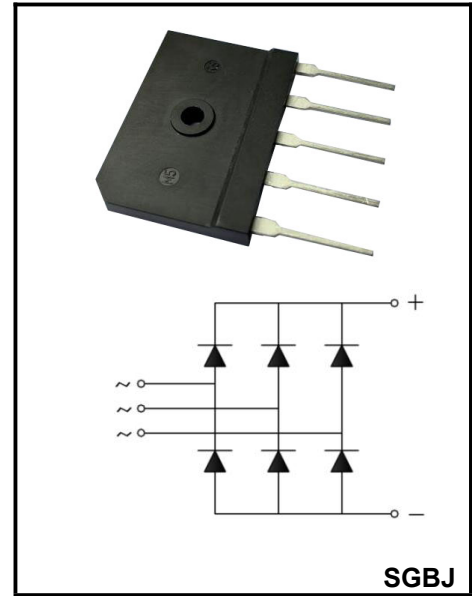


**Glass Passivated Single Phase Bridge Rectifiers**
**Reverse Voltage - 800 to 1600 V**
**Forward Current –15A**
**Features**

- ◆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 <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

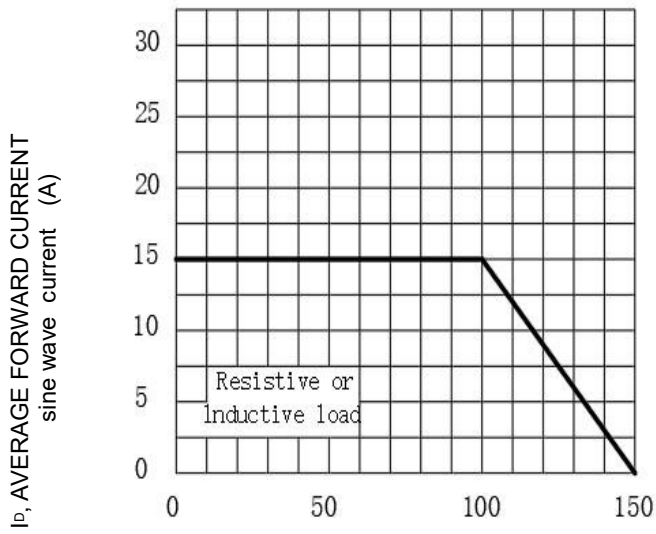
**Electrical Characteristics**

TA = 25°C unless otherwise noted

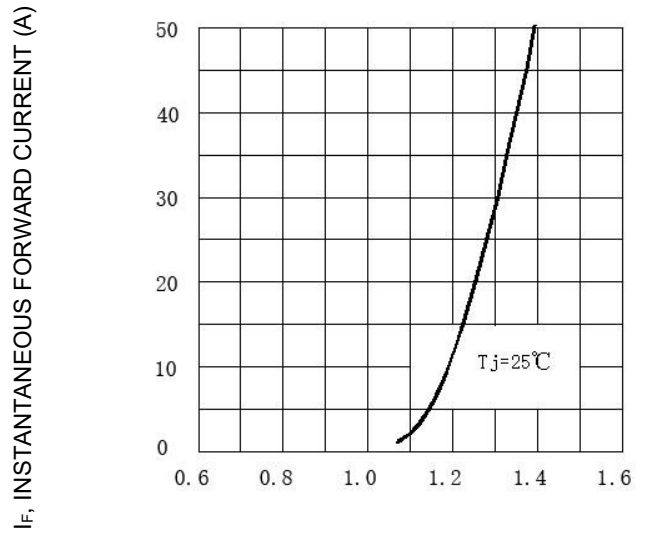
Conditions	Symbol	Values	Units
Maximum Forward Voltage per leg $I_F = 7.5A \quad T_j = 25^\circ C$	$V_{FM}$	1.18	V
Maximum reverse current at rated blocking voltage per leg $T_j = 150^\circ C$	$I_{RRM}$	3	mA
Maximum thermal resistance per <sup>(1)</sup> per diode total	$R_{th(j-c)}$	9 1.5	°C/W

Notes: (1) Junction to case

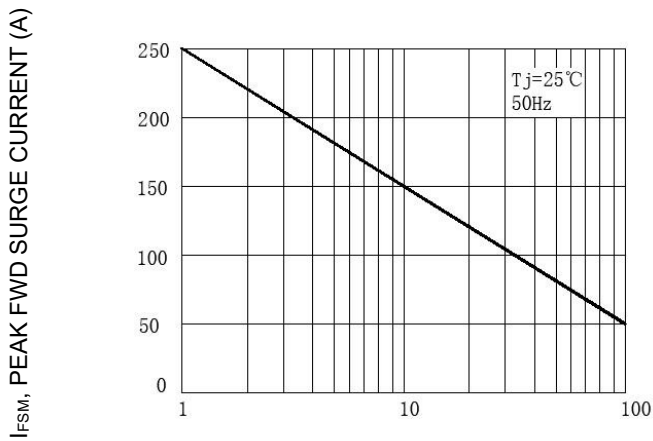
**Performance Curves**



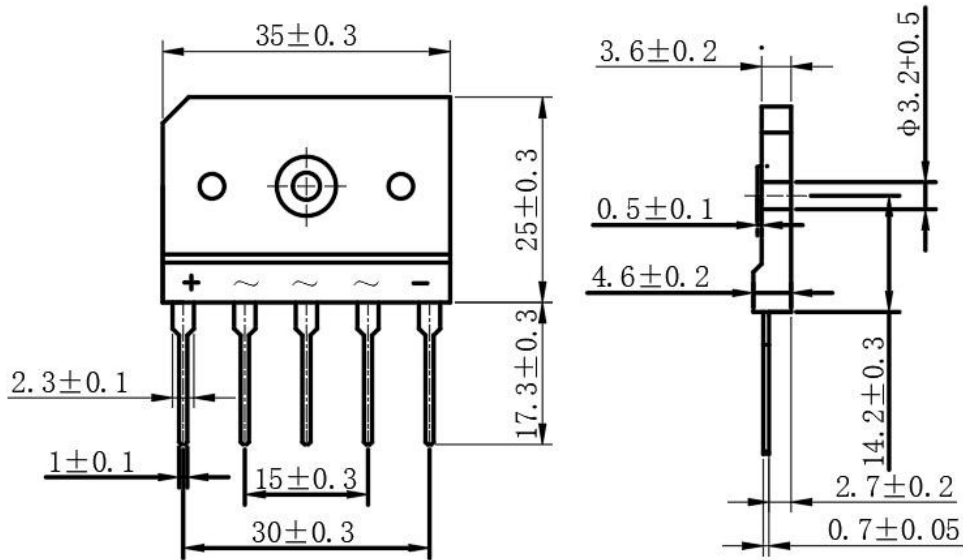
T<sub>C</sub>, TEMPERATURE (°C)  
Fig.1 Forward Current Derating Curve



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig.2 Maximum Forward Characteristics, per element



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



Dimensions in inches (mm)

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SGBJ	BOX	100	EIA-481-1