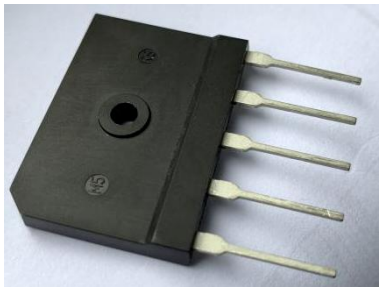
SGBJ2508 thru SGBJ2516



Glass Passivated Single Phase Bridge Rectifiers

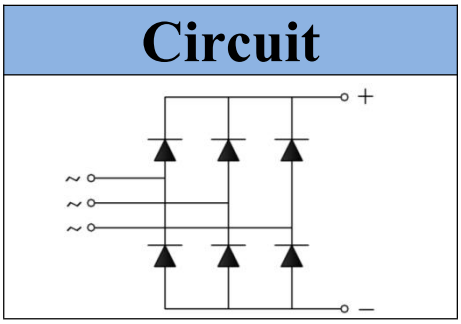
V_{RRM} 800 to 1600V

I_D 25 A

Features

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

Circuit



Mechanical Data

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

Bridge Type

TYPE	V_{RRM}	V_{RSM}
SGBJ 2508	800V	900V
SGBJ 2510	1000V	1100V
SGBJ 2512	1200V	1300V
SGBJ 2514	1400V	1500V
SGBJ 2516	1600V	1700V

Maximum Ratings and Thermal Characteristics (TA = 25℃ unless otherwise noted)

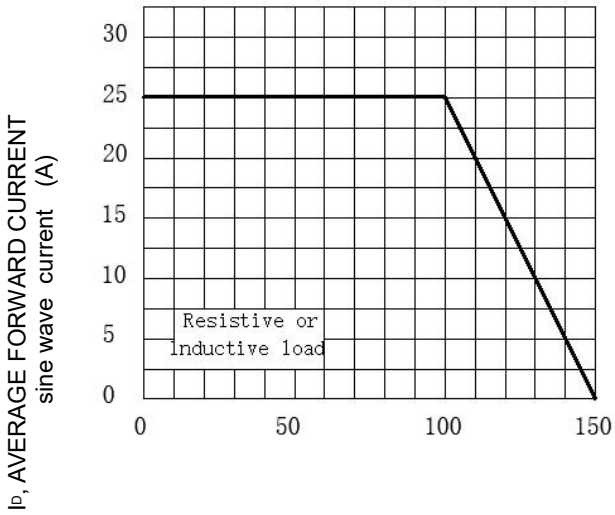
Symbol	Conditions	Values	Units
I_D	average forward output current sine wave ,R-load Tc =100℃	25	A
I_{FSM}	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) 50Hz Tj=25℃	350	A
I^2t	Rating for fusing (t=1~10ms)	612	A^2s
V_{ISO}	A.C.50/60Hz;R.M.S.;1min	2500	V
Tj, T_{stg}	Operating Junction and storage temperature range	-40 to +150	℃
Ms	Mounting Torque (Recommended torque:0.65 N • m)	0.8	N • m
W_t	Approximate Weight	10	g

Electrical Characteristics (TA = 25℃ unless otherwise noted)

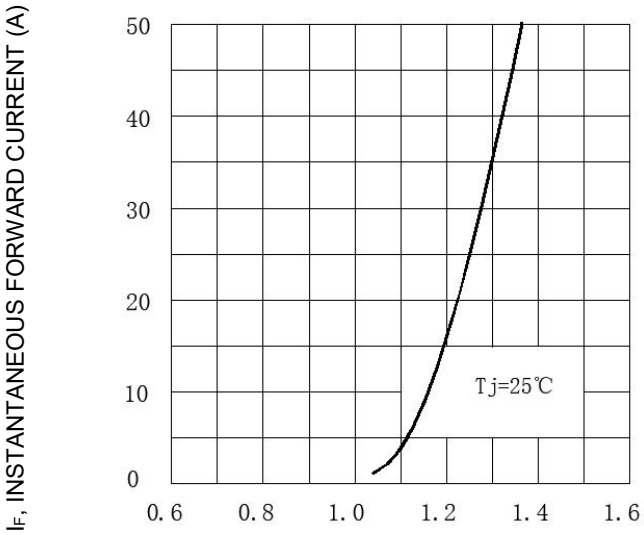
Symbol	Conditions	Values	Units
V_{FM}	Maximum Forward Voltage per leg I_F =12.5A Tj=25℃	1.18	V
I_{RRM}	Maximum reverse current at rated blocking voltage per leg Tj = 150℃	3	mA
$R_{th\ (j-c)}$	Maximum thermal resistance per (1) per diode total	9 1.5	℃/W

Notes: (1) Junction to case

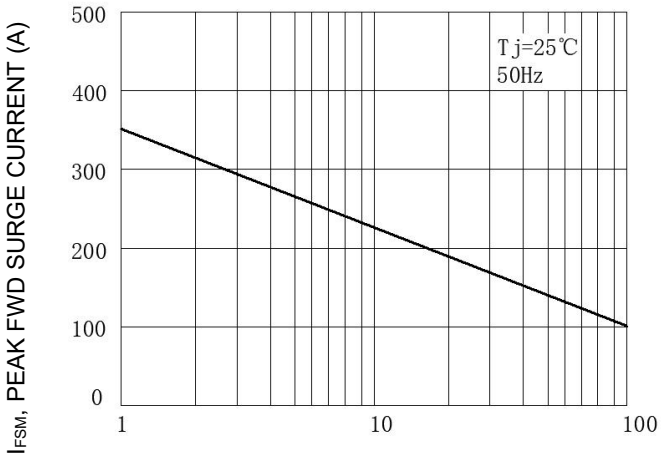
Performance Curves



T_C, TEMPERATURE (ºC)
Fig.1 Forward Current Derating Curve



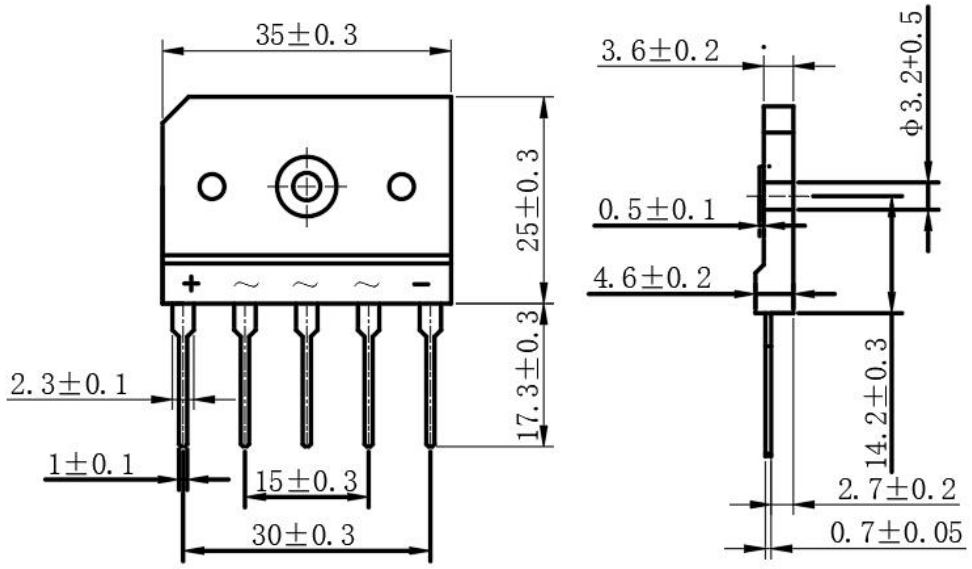
V_F, INSTANTANEOUSFWDVOLTAGE (V)
Fig.2 Maxmum Forward Characteristics, per element



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

Package Outline Information

CASE: SGBJ



Dimensions in inches (mm)