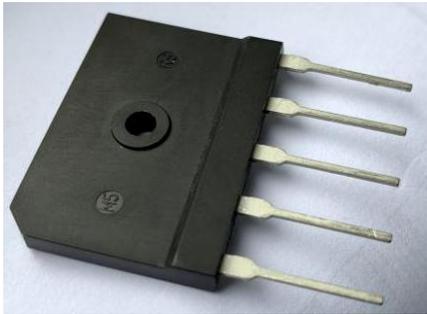




SGB J5008 THRU SGB J5016

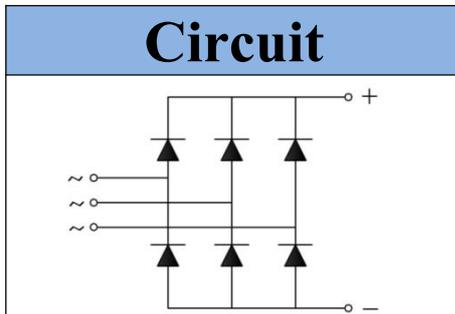
Glass Passivated Single Phase Bridge Rectifiers



Reverse Voltage 800 to 1600V
Forward Current 50 Amp

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

Bridge Type

TYPE	VRRM	VRSM
SGBJ 5008	800V	900V
SGBJ 5010	1000V	1100V
SGBJ 5012	1200V	1300V
SGBJ 5014	1400V	1500V
SGBJ 5016	1600V	1700V

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

Symbol	Conditions	Values	Units
I(AV)	Maximum average forward output rectified current Tc =100°C	50	A
IFSM	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	500	A
I ² t	Rating for fusing (t<10ms)	1250	A ² s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
RθJC	Maximum thermal resistance per leg (1)	1.5	°C/W
TOR	Mounting Torque (Recommended torque:0.5 N.m)	0.8	N.m
Tj, TSTG	Operating Junction and storage temperature range	-55 to +150	°C
Weight	Approximate Weight	10	g

Electrical Characteristics (TA = 25°C unless otherwise noted)

Symbol	Conditions	Values	Units
V _F	Maximum Instantaneous Forward Voltage per leg I _{FM} =25A	1.2	V
I _R	Maximum DC reverse current at rated DC blocking voltage per leg TA = 25°C TA = 125°C	5.0 500	μA

Notes: (1) Junction to case with heatsink
 (2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

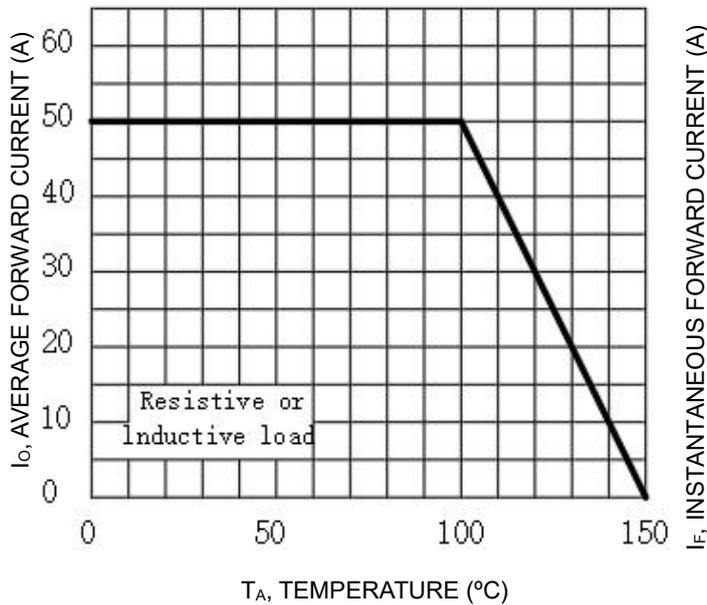


Fig.1 Forward Current Derating Curve

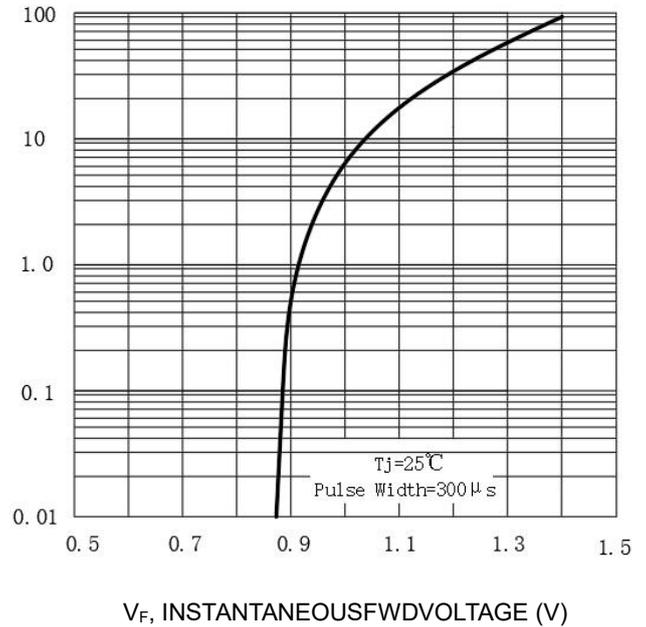


Fig.2 Typical Forward Characteristics, per element

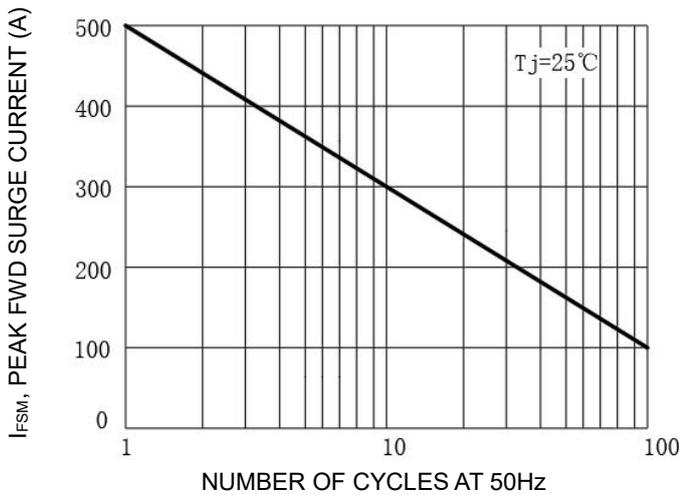


Fig.3 Max Non-Repetitive Surge Current

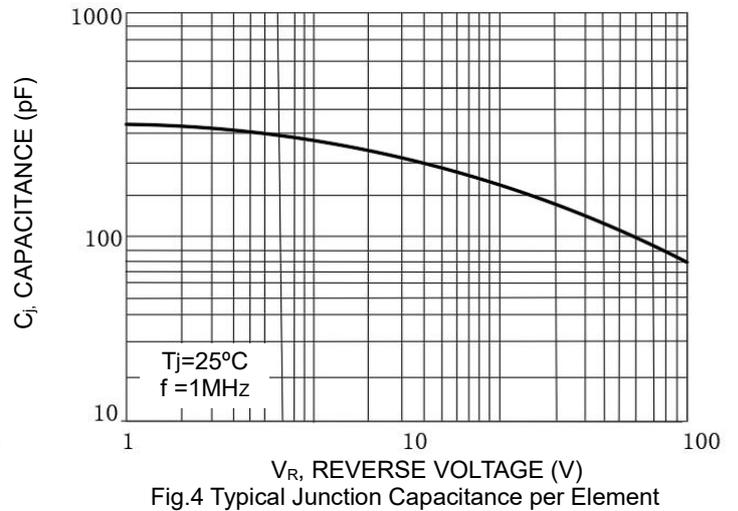


Fig.4 Typical Junction Capacitance per Element

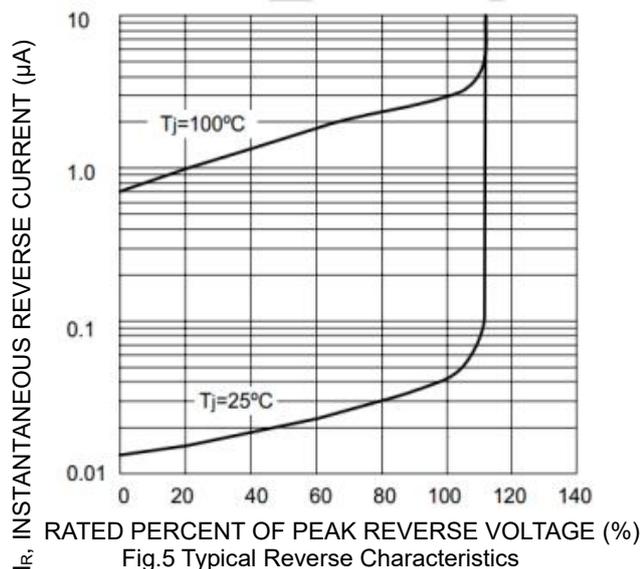


Fig.5 Typical Reverse Characteristics

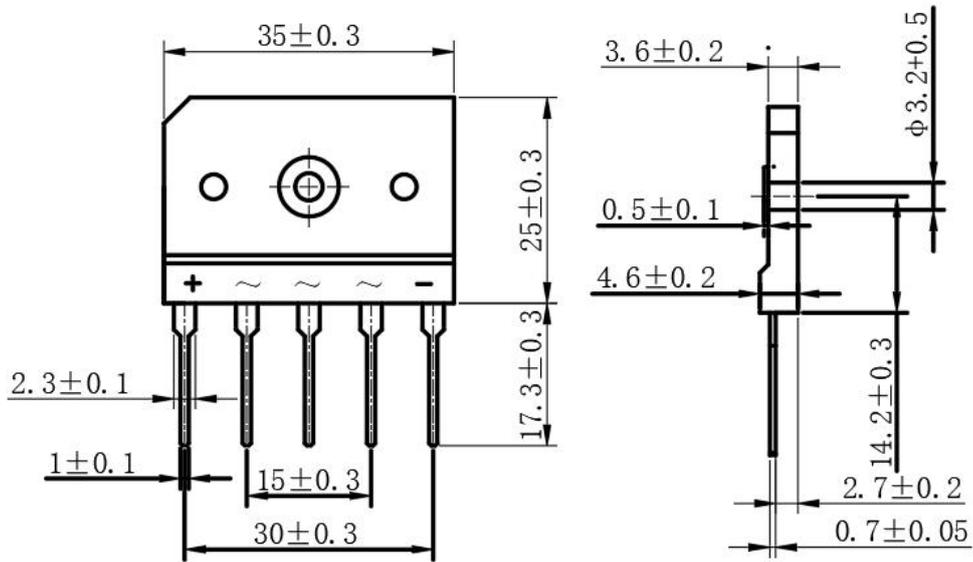


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Package Outline Information

CASE: SGBJ



Dimensions in inches (mm)