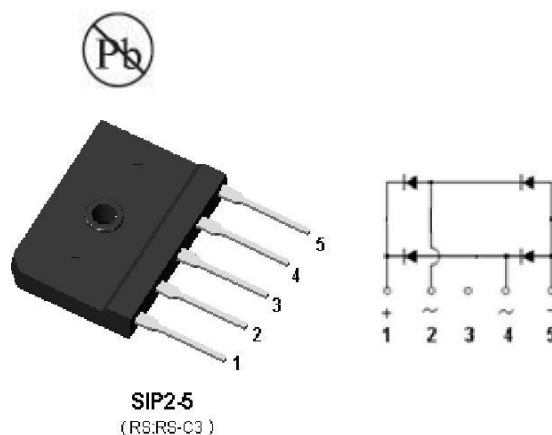


SGBJ5008~SGBJ5016

Glass Passivated Bridge Rectifier

Features

- Ideal for printed circuit board
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering :
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC



Mechanical Date

- **Case:** SIP2-5(RS-C3) Molded plastic over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002 and JESD22-B102D
- **Polarity:** Polarity symbols marked on body

Major Ratings and Characteristics

$I_{F(AV)}$	50A
V_{RRM}	800 to 1600V
I_{FSM}	500 A
I_R	10 μ A
V_F	1.3V
$T_{j \max.}$	150°C

Maximum Ratings & Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Symbol	5008	5010	5012	5016	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	800	1000	1200	1600	V
Maximum RMS voltage	V_{RMS}	560	700	840	1120	V
Maximum DC blocking voltage	V_{DC}	800	1000	1200	1600	V
Maximum average forward rectified current at $T_c=80^\circ\text{C}$ (With heatsink)	$I_{F(AV)}$	50				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500				A
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	1000				A ² s
Isolation Breakdown Voltage(R.M.S) @a.c.50HZ;r.m.s.;1min	V_{isol}	2500				V
Thermal resistance ⁽¹⁾ junction to case	$R_{\theta JC}$	0.96				°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				°C

Note 1: Device mounted on 75mm*88mm*20mm Al heatsink with ten grooves, Thermal resistance test is according to JESD 282b.

Electrical Characteristics for Rectifier ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage per leg	$I_F=25A^{(2)}$	V_F	-	-	1.30	V
Reverse current per leg	$V_R=V_{DC}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	-	-	10 500	μ A

Note2: Pulse test:300 μ s pulse width,1% duty circle.

Characteristic Curves

Fig.1 Forward Current Derating Curve

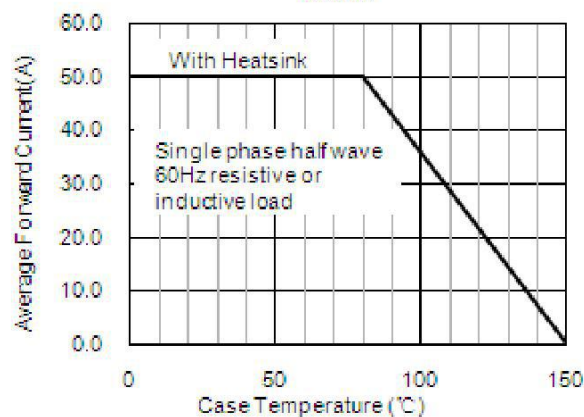


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

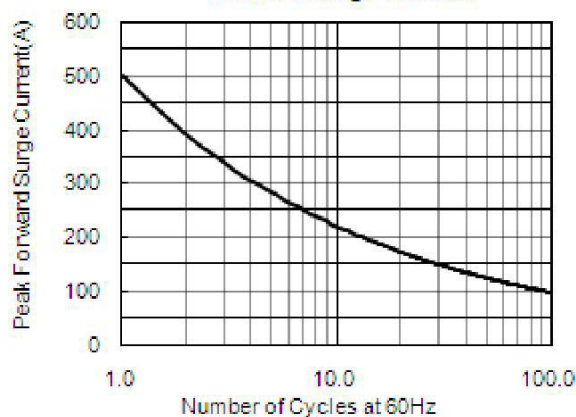


Fig.3 Typical Instantaneous Forward Characteristics

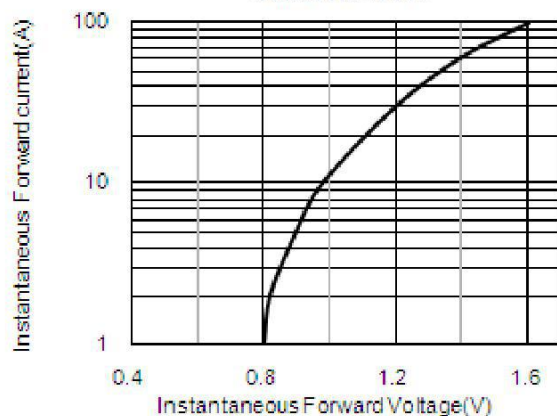
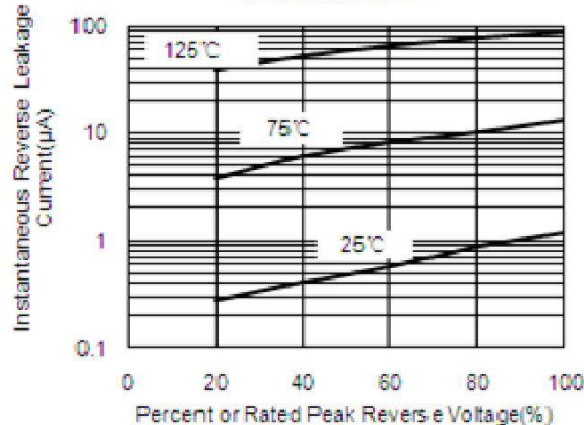
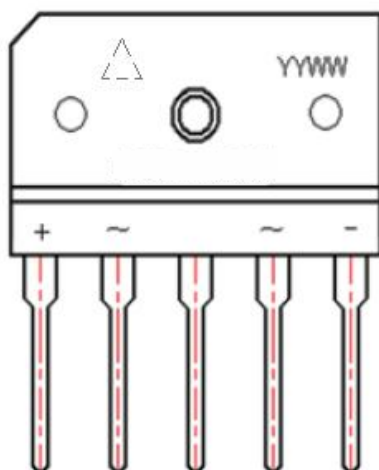


Fig.4 Typical Reverse Leakage Characteristics



Glass Passivated Bridge Rectifier

Marking



Package Outline

