

Glass Passivated 3 Phase Bridge Rectifiers

Reverse Voltage - 1000Volts
Forward Current - 50 Amperes

Features

- Low forward voltage drop
- High current capability
- High reliability

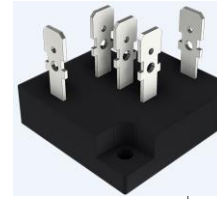
Mechanical Data

- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Bolt pass through the mounting hole of SBR35GW then fixto heat sink
- Mounting torque: 0.8 N.m

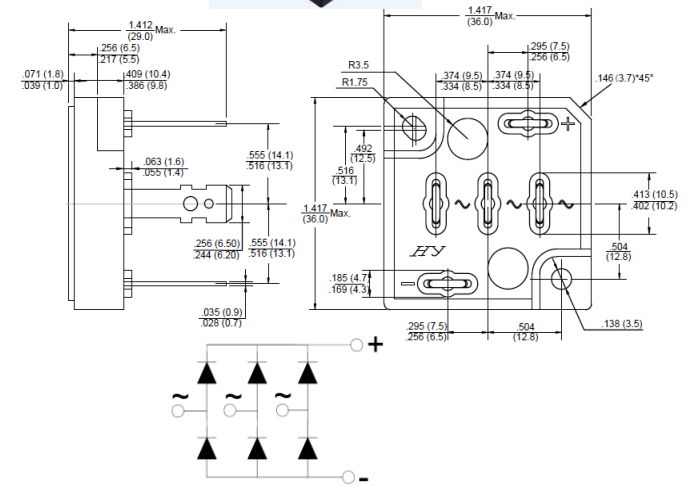
Applications

- For use in high power supply inverters,servo motor and welding machine applications

SCVB



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	SC50VB100	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum Average Forward Rectified Current @ $T_c=55^\circ\text{C}$	$I_{(AV)}$	50	A
Peak Forward Surge Current, 8.3ms 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	1037.5	A^2S
Peak Forward Voltage per Diode at 25A DC	V_F	1.05	V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode @ $T_j=25^\circ\text{C}$	I_R	10	μA
Typical Thermal Resistance Junction to Case per Diode	$R_{\theta JC}$	0.7	$^\circ\text{C/W}$
Dielectric Strength	V_{dis}	2000	V
Operating Junction Temperature Range	T_j	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note: The typical data above is for reference only

SC50VB100-B-00/99/92-00/01

Rev. 9, 22-Apr-2019

Fig. 1 - Forward Current Derating Curve

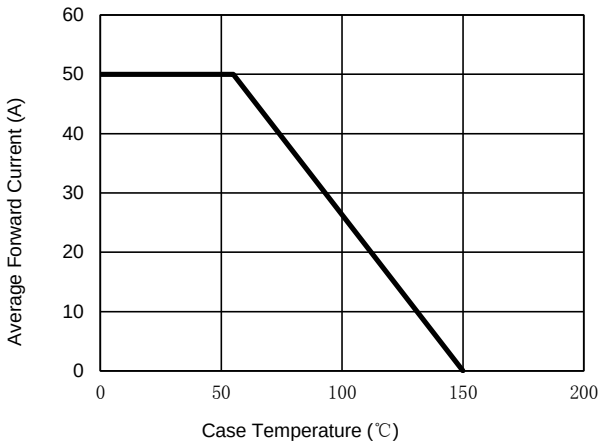


Fig. 2 - Maximum Non-Repetitive Surge Current

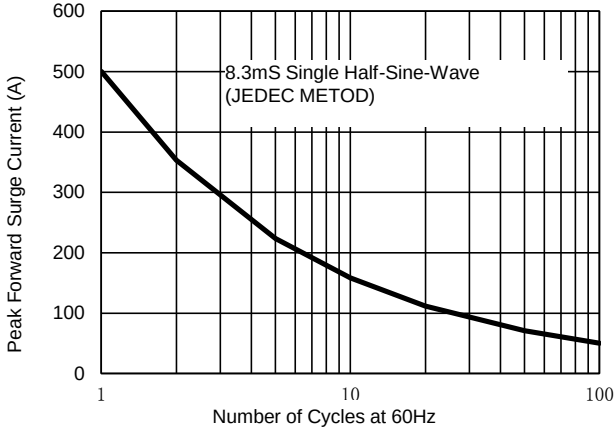


Fig. 3 - Typical Reverse Characteristics

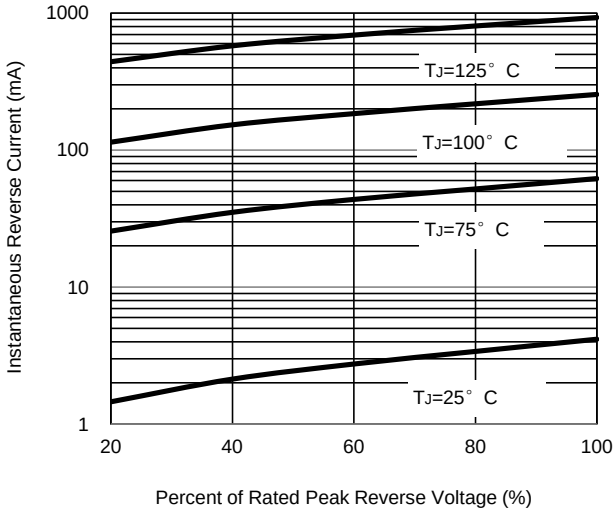
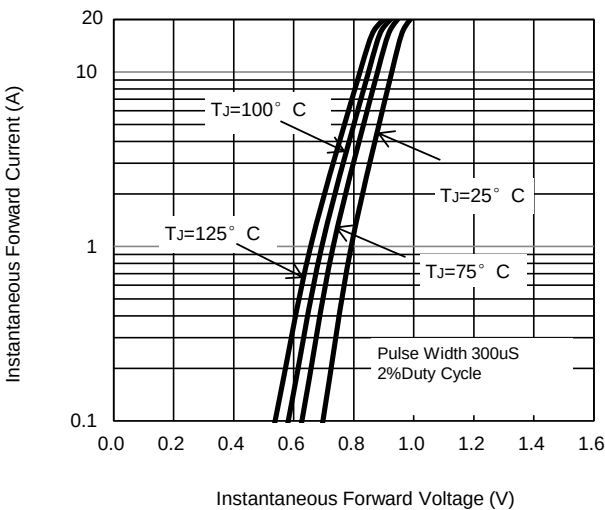


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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