

Glass Passivated 3 Phase Bridge Rectifiers

Reverse Voltage - 1600Volts

Forward Current - 50 Amperes

Features

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

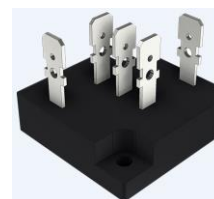
Mechanical Data

- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Mounting torque: 0.8 N.m

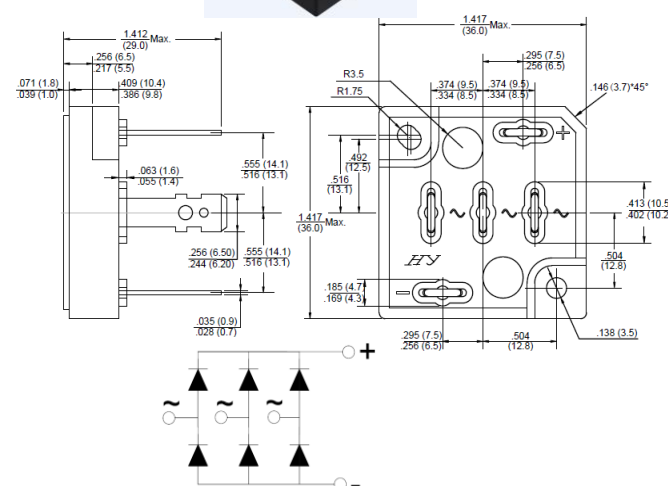
Applications

- 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	SC50VB160	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	1600	V
Maximum RMS Voltage	V _{RMS}	1120	V
Maximum Average Forward Rectified Current @Tc=55 °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 ² t Rating for Fusing (t<8.3mS)	I ² t	1037.5	A ² S
Peak Forward Voltage per Diode at 25A DC	V _F	1.15	V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode @Tj=25°C	I _R	10	µA
Typical Thermal Resistance Junction to Case per Diode	RθJC	0.7	°C/W
Dielectric Strength	V _{dis}	2000	V
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Note: The typical data above is for reference only

SC50VB160-B-00/99/92-00/01

Rev. 9, 22-Apr-2019

Fig. 1 - Forward Current Derating Curve

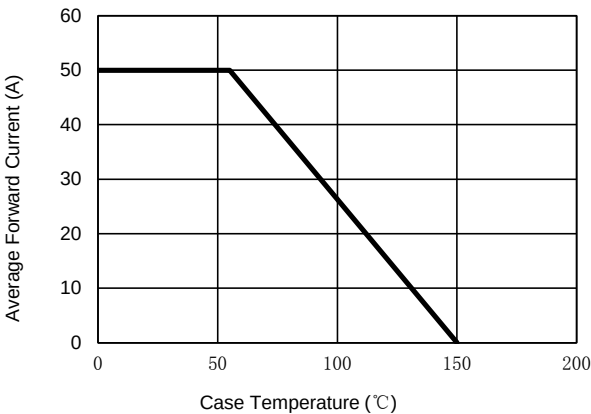


Fig. 2 - Maximum Non-Repetitive Surge Current

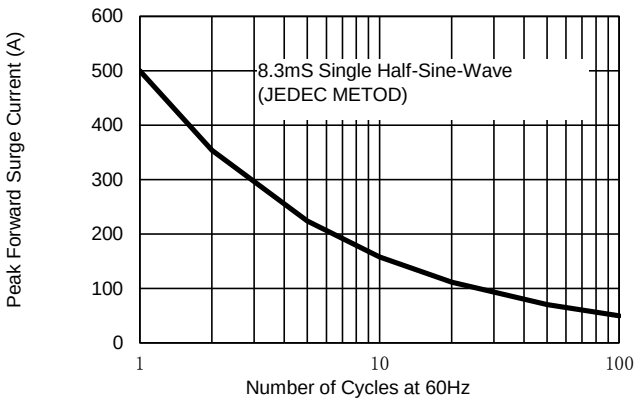


Fig. 3 - Typical Reverse Characteristics

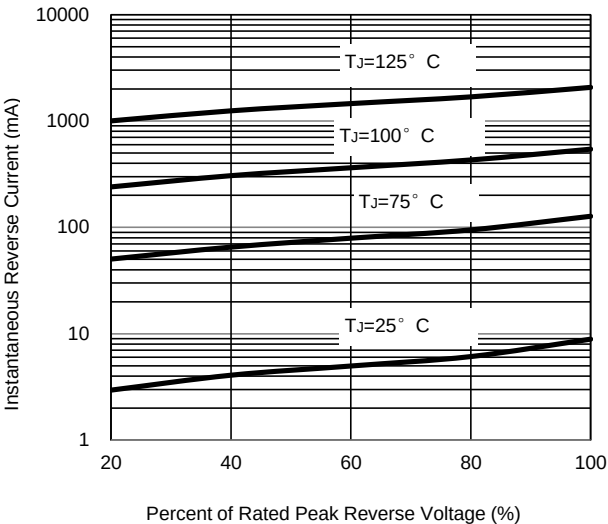
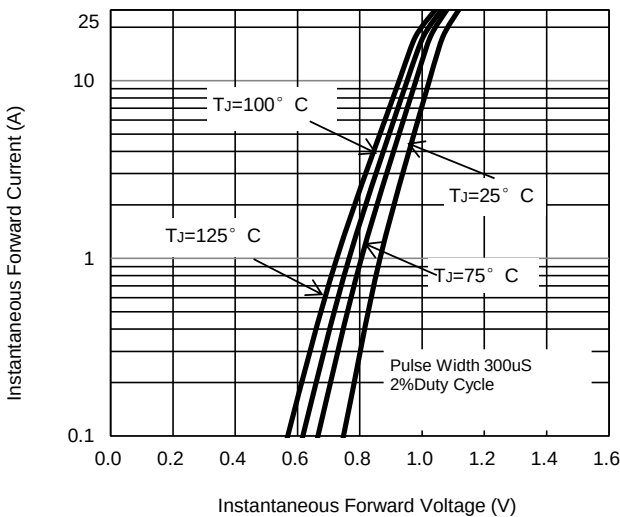


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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