

**Silicon Passivated 3 Phase Bridge Rectifiers****Reverse Voltage - 800 to 1600Volts****Forward Current - 50 Amperes****Features**

- Low forward voltage drop
- High current capability
- High reliability
- Meet UL flammability classification 94V-0

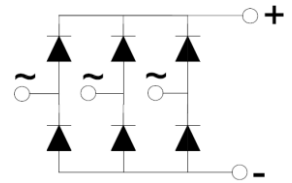
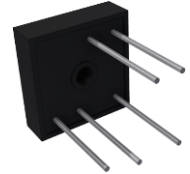
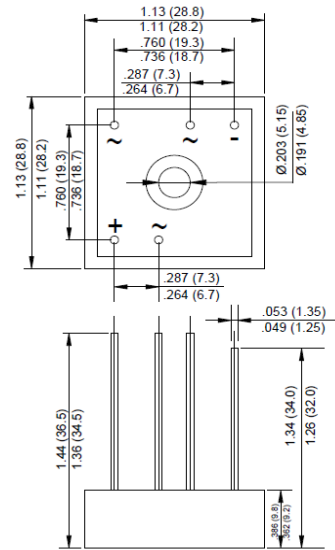
Mechanical Data

- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Bolt pass through the mounting hole of body then fix to heat sink
- Mounting torque: 2 N.m

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

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

SBRW

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	SBR50 -08W	SBR50 -10W	SBR50 -12W	SBR50 -14W	SBR50 -16W	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	800	1000	1200	1400	1600	V
Maximum RMS Voltage	V _{RMS}	560	700	840	980	1120	V
Maximum DC Blocking Voltage	V _{DC}	800	1000	1200	1400	1600	V
Peak Non-Repetitive Reverse Voltage	V _{RSM}	900	1100	1300	1500	1700	V
Maximum Average Forward Rectified Current @T _C =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	1.2					V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	5					μA
DC Blocking Voltage per Diode @T _J =150°C		3					mA
RMS Isolation Voltage from Case to Lead	V _{ISO}	2500					V
Operating Junction Temperature Range	T _J	-55 to +150					°C
Storage Temperature Range	T _{STG}	-55 to +125					°C

SBR50*W-B-00/99-00/01

Rev. 11, 18-May-2020



Fig. 1 - Forward Current Derating Curve

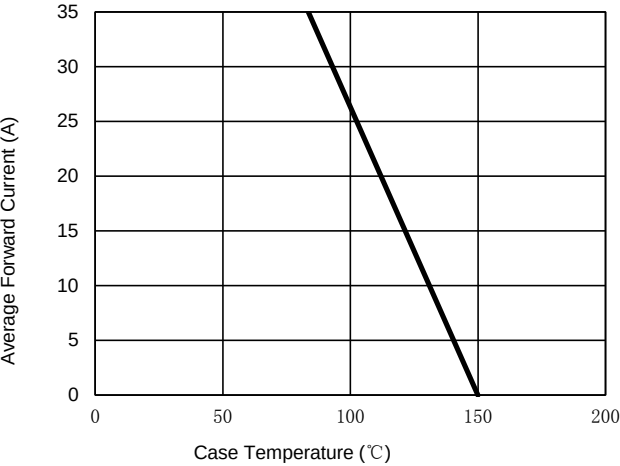


Fig. 2 - Maximum Non-Repetitive Surge Current

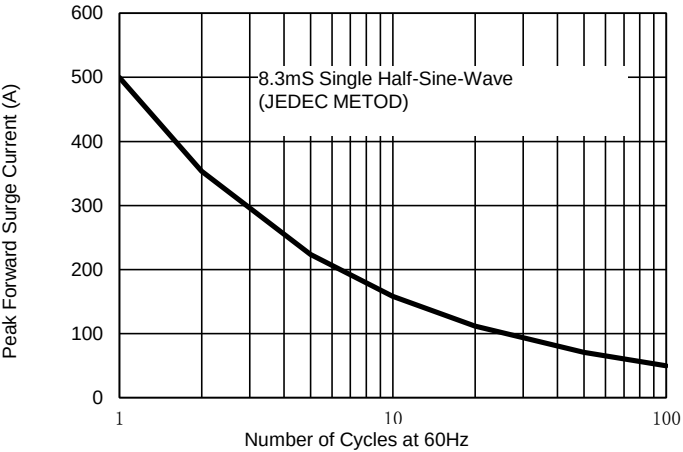


Fig. 3 - Typical Reverse Characteristics

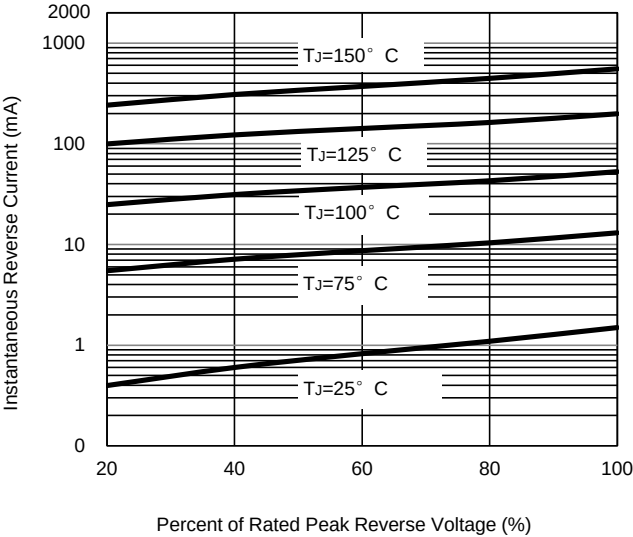
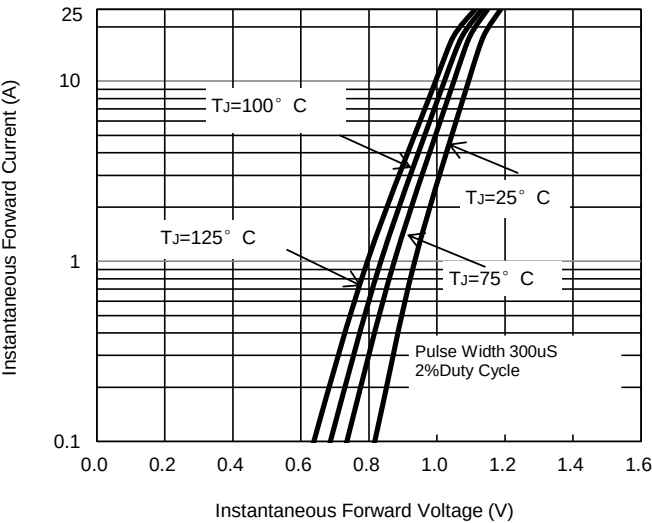


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



Disclaimer

ALL specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

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