SBR50GW SERIES

Glass Passivated 3 Phase Bridge Rectifiers

Reverse Voltage - 50 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 fixto heat sink
- Mounting torque: 2 N.m

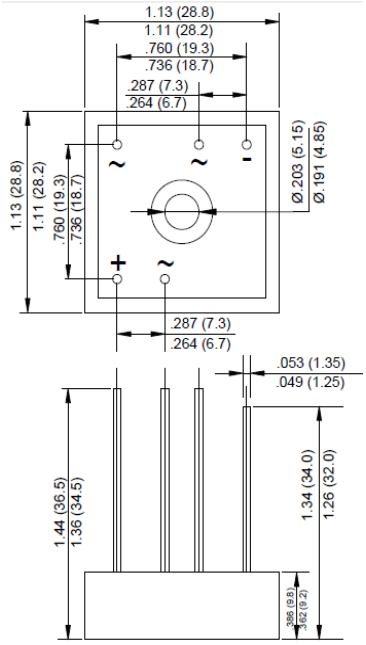
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Applications

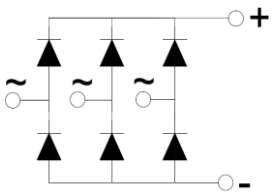
- For use in high power supply inverters,servo motor and welding machine applications

SBR-W

RoHS COMPLIANT







Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	SBR50										Unit
		00GW	01GW	02GW	04GW	06GW	08GW	10GW	12GW	14GW	16GW	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	1400	1600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	840	980	1120	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	1200	1400	1600	V
Peak Non-Repetitive Reverse Voltage	V_{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	V
Maximum Average Forward Rectified Current @T_C=55 ℃	$I_{(AV)}$	50										A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	475										A
I^2t Rating for Fusing (t<8.3mS)	I^2t	936										A^2S
Peak Forward Voltage per Diode at 25A DC	V_F	1.1										V
Maximum DC Reverse Current at Rated @T_J=25℃	I_R	5										μA
DC Blocking Voltage per Diode @T_J=150℃		3										mA
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500										V
Typical Thermal Resistance Junction to Case per Diode	$R_{\theta JC}$	0.9										℃/W
Operating Junction Temperature Range	T_J	-40 to +150										℃
Storage Temperature Range	T_{STG}	-40 to +125										℃

Note: The typical data above is for reference only

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Fig. 1 - Forward Current Derating Curve

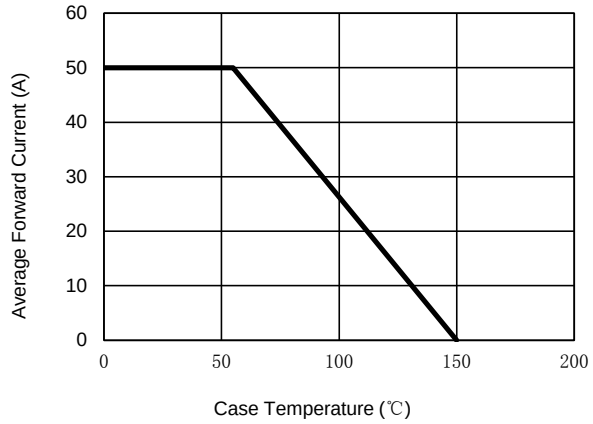


Fig. 2 - Maximum Non-Repetitive Surge Current

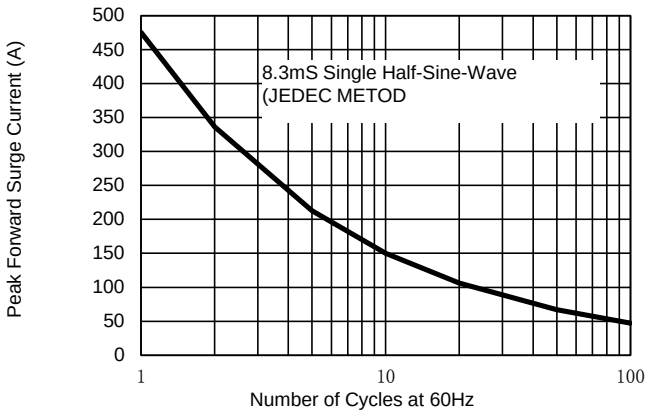


Fig. 3 - Typical Reverse Characteristics

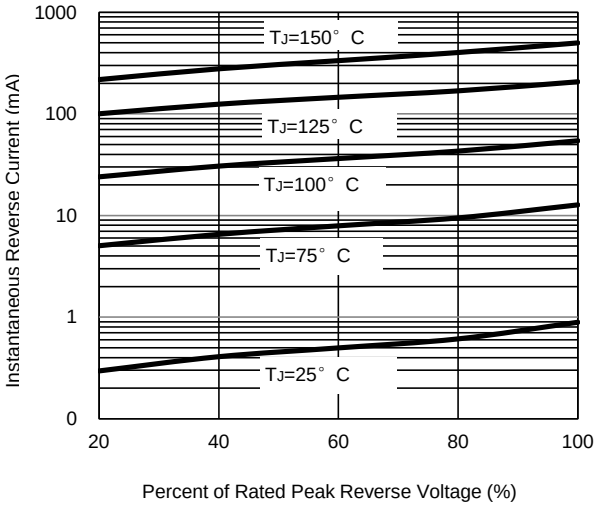
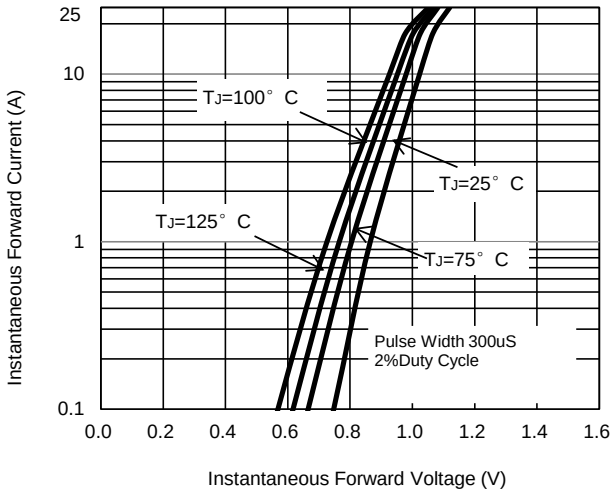


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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