

SILICON PASSIVATED THREE PHASE BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1600 Volts
FORWARD CURRENT - 15 Amperes

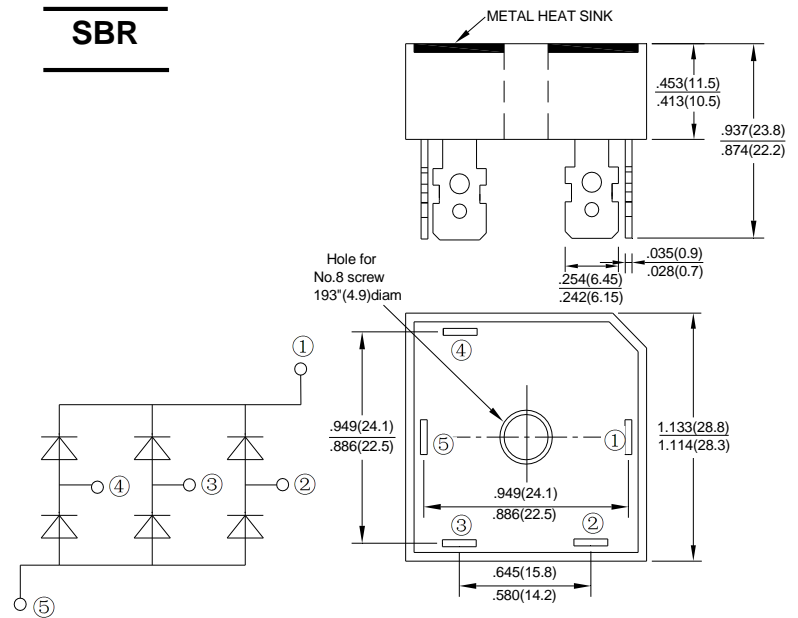
FEATURES

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

MECHANICAL DATA

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 20 grams (approx.)
- Mounting Position:
Bolt Down on Heatsink With Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 20 in lbs. Max.
- Marking: Type Number

SBR



Dimensions in inches and (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%

VOLTAGE RATINGS

CHARACTERISTICS	SYMBOL	-00	-01	-02	-04	-06	-08	-10	-12	-14	-16	UNIT
Peak Repetitive Voltage	V _{RRM}											
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	1200	1400	1600	V
DC Blocking Voltage	V _R											
Peak Non-Repetitive Reverse Voltage	V _{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	980	1120	V

FORWARD CONDUCTION

CHARACTERISTICS	SYMBOL	SBR15										UNIT
Maximum Average Forward Rectified Current @ T _c =100°C	I _o	15										A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I _{FSM}	300										A
Maximum Forward Voltage Drop Per Element at 7.5A Peak, Pulse measurement, per diode	V _F	1.1										V
Peak Reverse Current (per leg) @ T _J =25°C	I _R	10										μA
At Rated DC Blocking Voltage @ T _J =125°C		5.0										mA
RMS Isolation Voltage from Case to Lead	V _{ISO}	2500										V

THERMAL CHARACTERISTICS

Operating Temperature Range	T _J	-55 to +150										°C
Storage Temperature Range	T _{STG}	-55 to +150										°C
Thermal Resistance Junction to Case at DC Operation per Bridge	R _{JC}	1.6										K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	R _{CS}	0.2										K/W

RATING AND CHARACTERISTIC CURVES

SBR15A SERIES



FIG.1-MAXIMUM FORWARD SURGE CURRENT

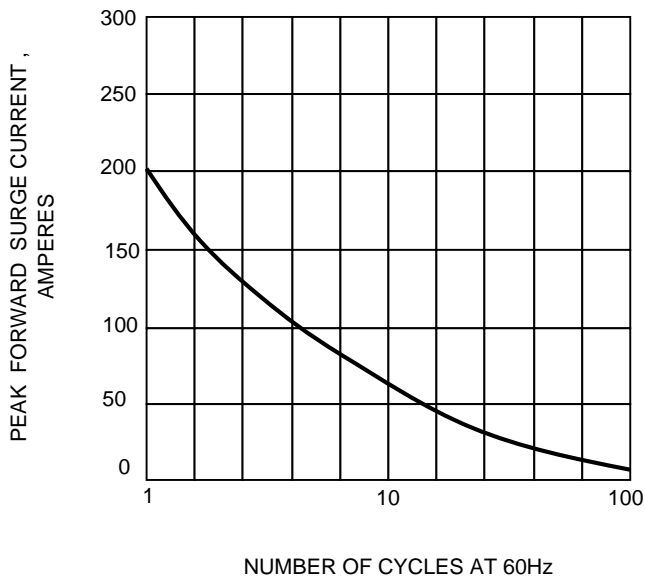


FIG. 2 – DERATING CURVE OUTPUT RECTIFIED CURRENT

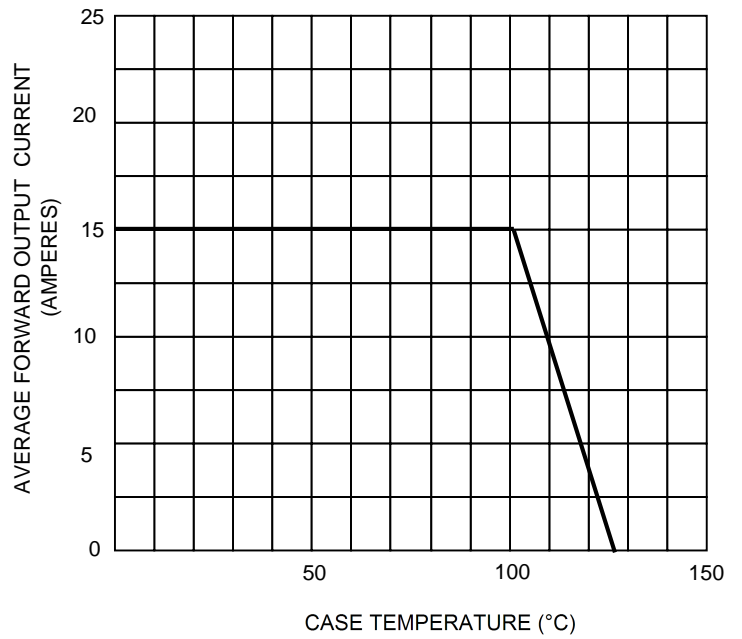


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

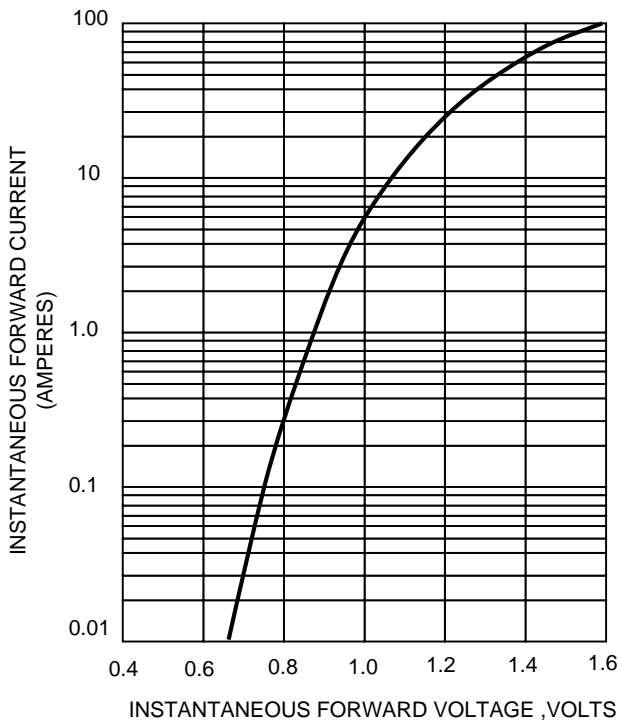


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

