



SB305 THRU SB3100

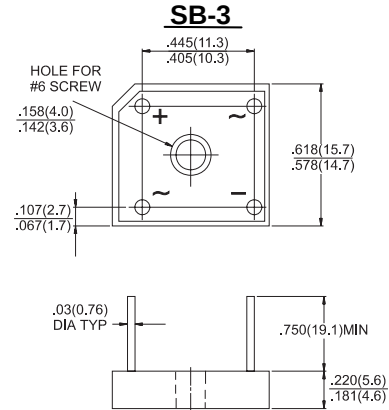
Single Phase 3.0 AMPS. Silicon Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
3.0 Amperes

Features

- ✧ UL Recognized File # E-96005
- ✧ High surge current capability
- ✧ Low forward voltage drop
- ✧ High temperature soldering guaranteed:
260°C / 10 seconds / 0.375" (9.5mm)
lead length at 5 lbs., (2.3 kg) tension
- ✧ Small size, simple installation
- ✧ Leads solderable per MIL-STD-202,
Method 208



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Type Number	Symbol	SB 305	SB 310	SB 320	SB 340	SB 360	SB 380	SB 3100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_A = 50^\circ\text{C}$	$I_{(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage @ 1.5A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	10 500							μA μA
Typical Thermal Resistance (Note)	$R_{\theta JC}$	10							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note: Thermal Resistance from Junction to Case per Leg.

RATINGS AND CHARACTERISTIC CURVES (SB305 THRU SB3100)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

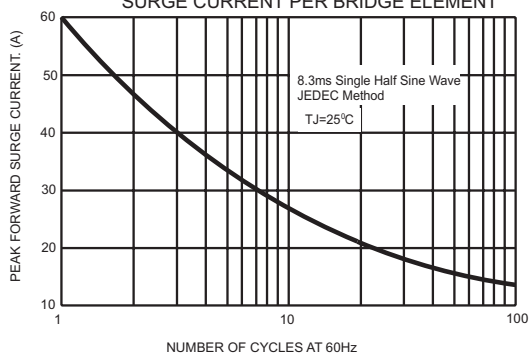


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

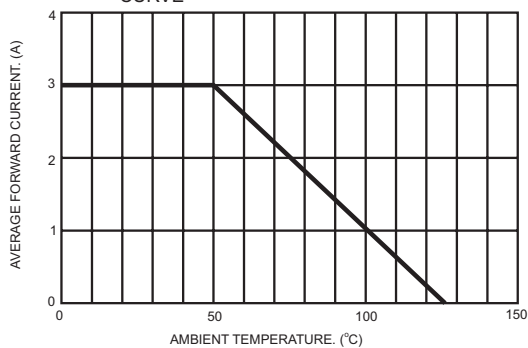


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

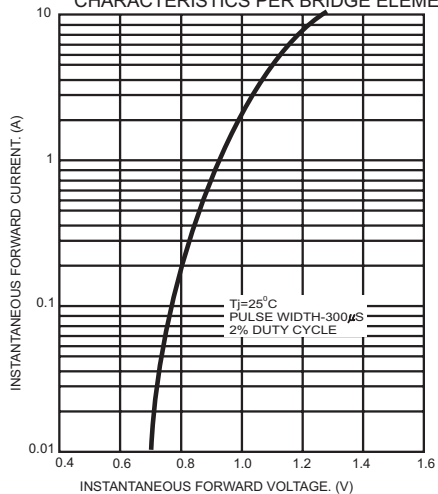


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

