



# SB6, SBT6 SERIES

## Single Phase 6.0 AMPS. Silicon Bridge Rectifiers



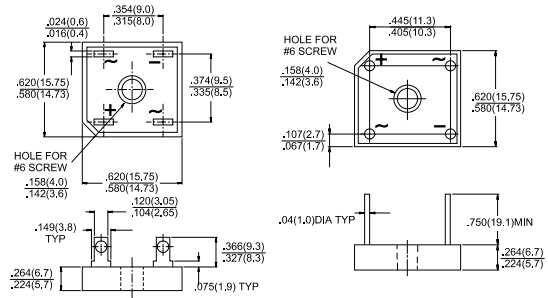
Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

### Features

- ✧ UL Recognized File # E-96005
- ✧ Surge overload rating 200 amperes peak
- ✧ Low forward voltage drop
- ✧ High temperature soldering guaranteed:  
250°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

### SBT-6

### SB-6



**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	SB601	SB602	SB603	SB604	SB605	SB606	SB607	Units
	SBT601	SBT602	SBT603	SBT604	SBT605	SBT606	SBT607	
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T <sub>A</sub> = 50°C	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	200							A
Maximum Instantaneous Forward Voltage @ 3.0A	1.0							V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	10 500							µA µA
Typical Thermal resistance (Note 1) R <sub>θJA</sub> (Note 2) R <sub>θJC</sub>	22 7.3							°C/W
Operating Temperature Range T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range T <sub>STG</sub>	-55 to +150							°C

Note: 1. Unit Mounted on P.C.B. at 0.375" (9.5mm) Lead Length with 0.5 x 0.5" (12 x 12mm) Copper Pads.  
2. Unit Mounted on 5.5 x 6. x 0.11" thick (14 x 15 x 0.3cm) Al. Plate.

## RATINGS AND CHARACTERISTIC CURVES (SB<sub>SBT</sub> 601 THRU SB<sub>SBT</sub> 607)

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

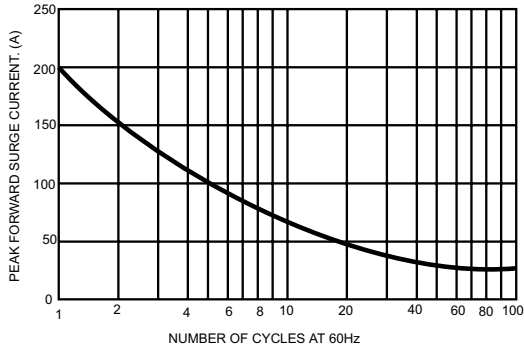


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

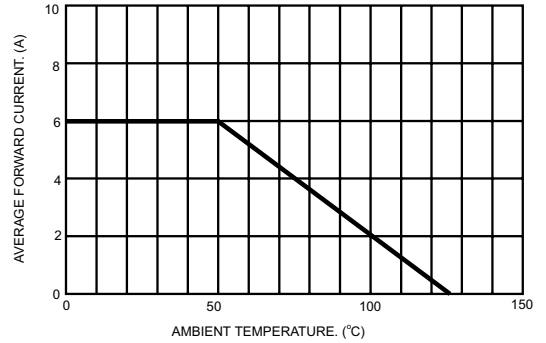


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

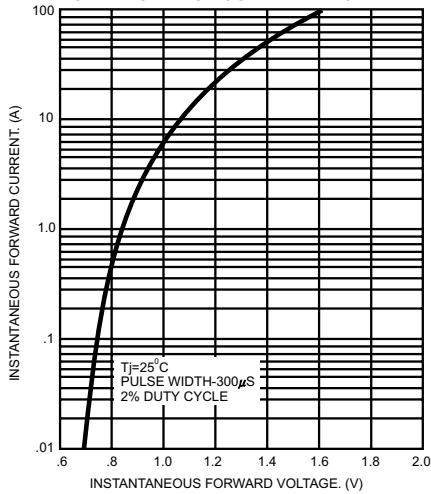


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

