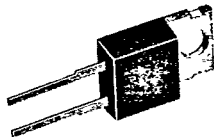


7-03-17

**SBS8-T SERIES**

HIGH CURRENT SCHOTTKY RECTIFIER

**GENERAL  
INSTRUMENT****FEATURES**

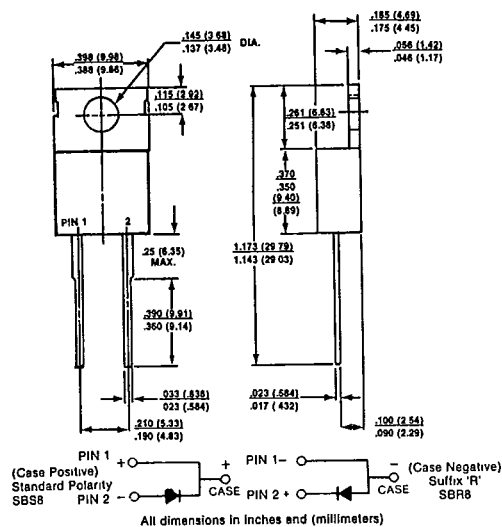
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal of silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low  $V_f$
- High surge capacity
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed: 250° C/10 seconds/.25", (6.35mm) from case

**MECHANICAL DATA**

Case: TO-220 molded plastic  
 Terminals: Lead solderable per MIL-STD-202, Method 208  
 Polarity: As marked  
 Mounting position: Any  
 Weight: .08 ounces, 2.24 grams

**VOLTAGE RANGE**  
 20 to 60 Volts

**CURRENT**  
 8.0 Amperes

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25° C ambient temperature unless otherwise specified.  
 Resistive or inductive load.  
 For capacitive load, derate current by 20%.

	SBS820T	SBS830T	SBS835T	SBS840T	SBS845T	SBS850T	SBS860T	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	35	40	45	50	60	$V_{RRM}$
Maximum RMS Voltage	14	21	24.5	28	31.5	35	42	$V_{RMS}$
Maximum DC Blocking Voltage	20	30	35	40	45	50	60	$V_{DC}$
Maximum Average Forward Rectified Current See Fig. 1	8.0							A(AV)
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	150							Apk
Maximum Instantaneous Forward Voltage $I_f = 8.0A, T_c = 125^\circ C$ (Note 3) $I_f = 8.0A, T_c = 25^\circ C$	.55 .65					.65 .75		Vpk
Maximum Average Reverse Current at $T_c = 25^\circ C$ Rated DC Blocking Voltage per element $T_c = 100^\circ C$	1.0 50.0							mA mA
Typical Thermal Resistance $R_{\theta JC}$ (Note 1)	3.0							$^\circ C/W$
Typical Junction Capacitance (Note 2)	700					460		pF
Operating and Storage Temperature Range $T_j$	-65 to +125					-65 to +150		$^\circ C$
Storage Temperature Range $T_{stg}$	-65 to +150							$^\circ C$

**NOTES:**

1. Thermal Resistance Junction to CASE.
2. Measured at 1 MHz and applied reverse voltage of 40 volts
3. 300  $\mu s$  Pulse Width, 2% Duty Factor.