



# DATA SHEET

## SB820CT~SB8150CT

### SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 150 Volts **CURRENT** 8 Amperes

TO-220AB

Unit : inch (mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 99% Sn above

#### MECHANICAL DATA

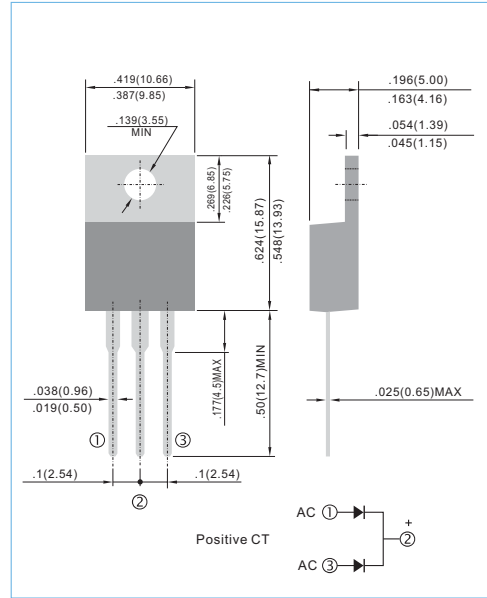
Case: TO-220AB full molded plastic package

Terminals: Lead solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 ounces, 2.24grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%

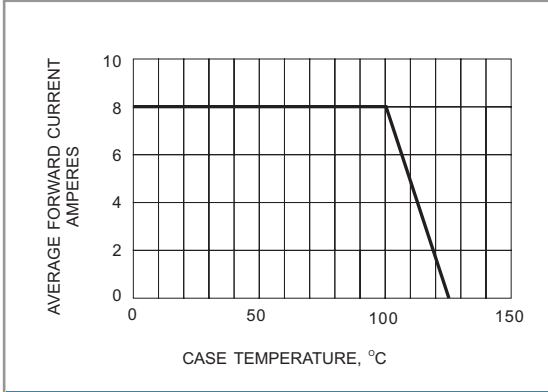
PARAMETER	SYMBOL	SB820CT	SB830CT	SB840CT	SB850CT	SB860CT	SB880CT	SB8100CT	SB8150CT	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	V	
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c = 100^\circ\text{C}$	$I_{AV}$	8								A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150								A	
Maximum Forward Voltage at 4.0A	$V_F$	0.55		0.75		0.85		0.92		V	
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	0.5				50					mA
Typical Thermal Resistance	$R_{\theta JC}$	6								$^\circ\text{C} / \text{W}$	
Operating Junction Temperature Rang	$T_J$	-50 to +125								$^\circ\text{C}$	
Storage Temperature Rang	$T_J, T_{STG}$	-50 to +150								$^\circ\text{C}$	

Note.

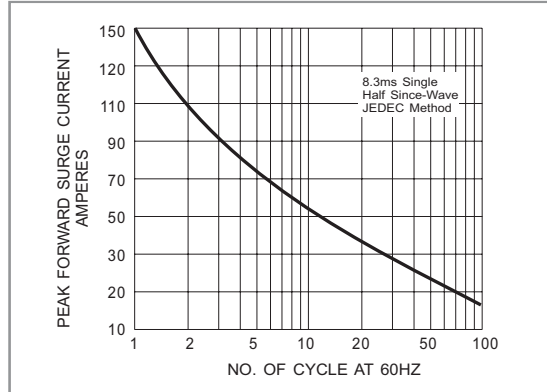
Both Bonding and Chip structure are available.



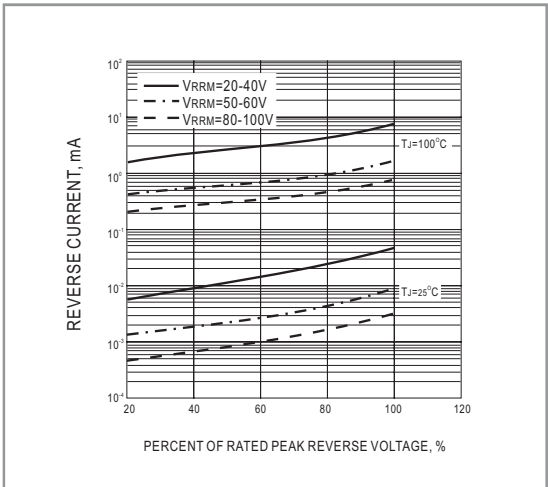
**RATING AND CHARACTERISTIC CURVES**



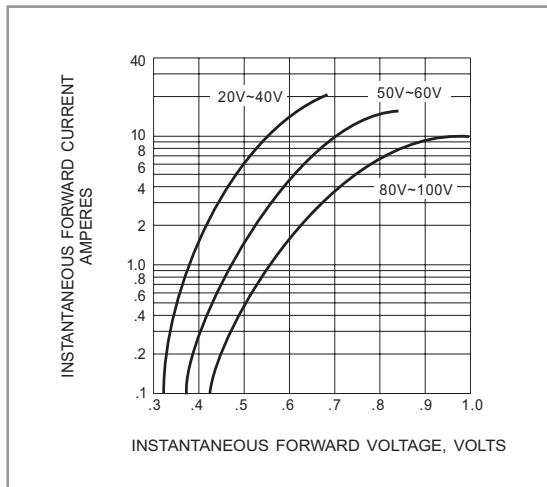
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**