

# SB1045CT

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 45V

CURRENT: 10.0A

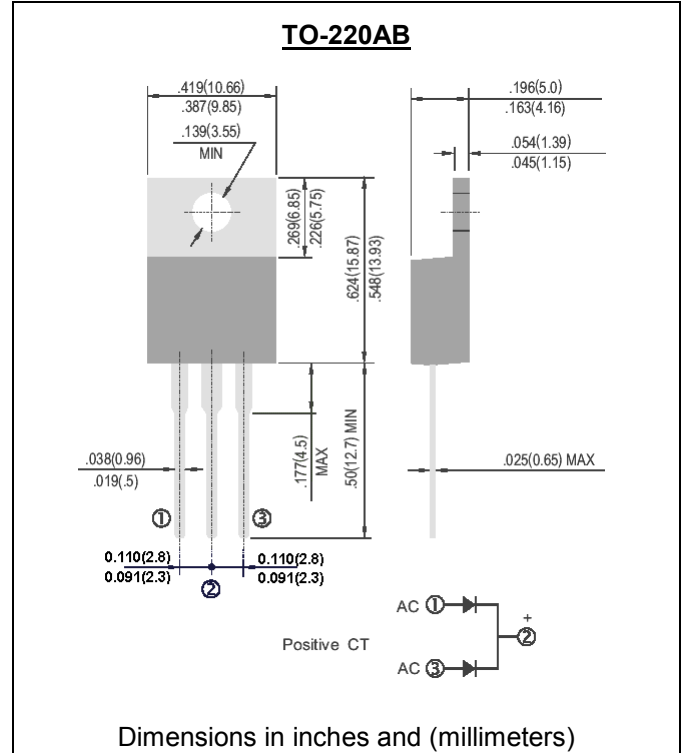


### FEATURE

High current capability, Low forward voltage drop  
Low power loss, high efficiency  
High surge capability  
High temperature soldering guaranteed  
250°C /10sec/0.375" lead length at 5 lbs tension

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Common Cathode  
Mounting position: any



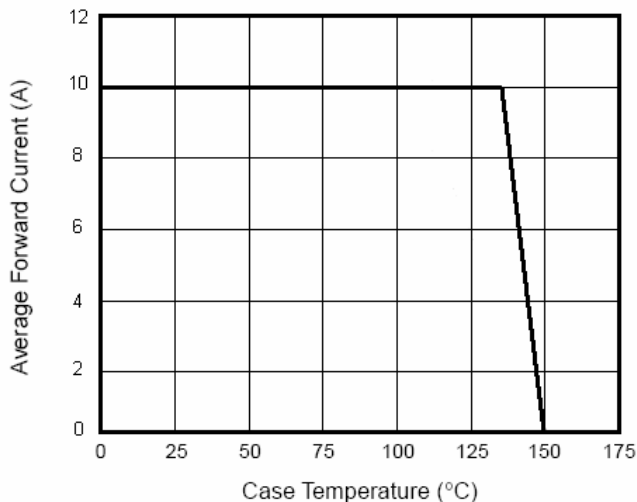
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

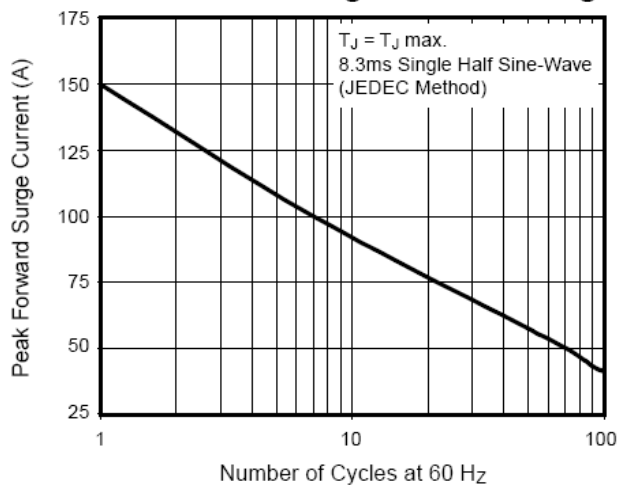
	SYMBOL	SB1045CT	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	45	V
Maximum RMS Voltage	V <sub>rms</sub>	31.5	V
Maximum DC blocking Voltage	V <sub>dc</sub>	45	V
Maximum Average Forward Rectified Current at T <sub>c</sub> =135°C	I <sub>f(av)</sub>	10	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load per leg	I <sub>fsm</sub>	150	A
Maximum Forward Voltage per leg and 25°C at 5A	V <sub>f</sub>	0.53	V
Maximum Reverse Current per leg at working peak reverse voltage	I <sub>r</sub>	0.1 6.0	mA
Typical Thermal Resistance per leg (Note 1)	R <sub>th(jc)</sub>	3.0	°C/W
Operating Junction and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-65 to +150	°C

Note:  
1. Thermal Resistance from Junction to Case

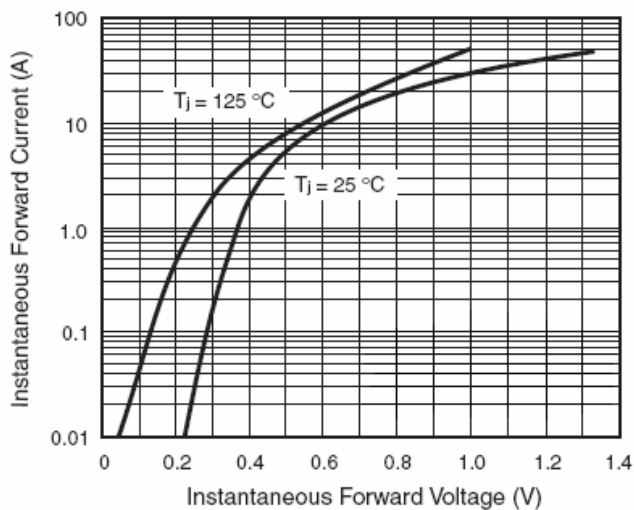
**Fig. 1 – Forward Derating Curve**



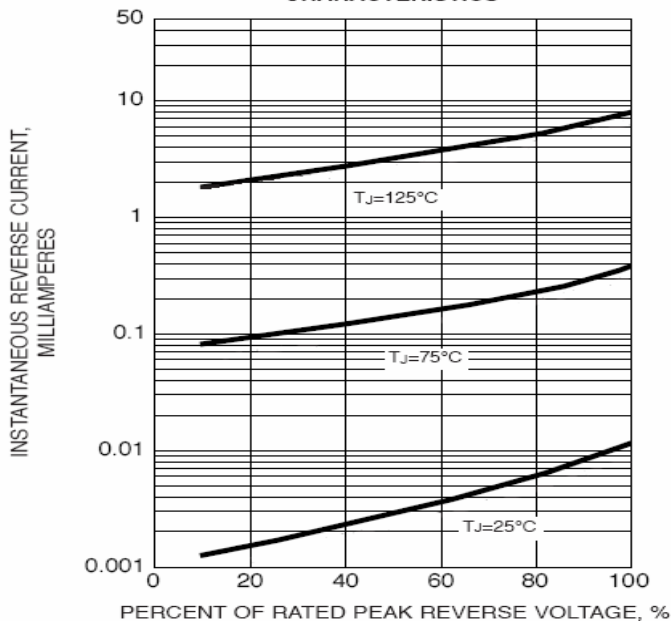
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Figure 3. Typical Instantaneous Forward Characteristics Per Diode**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**Fig. 5 – Typical Junction Capacitance Per Leg**

