

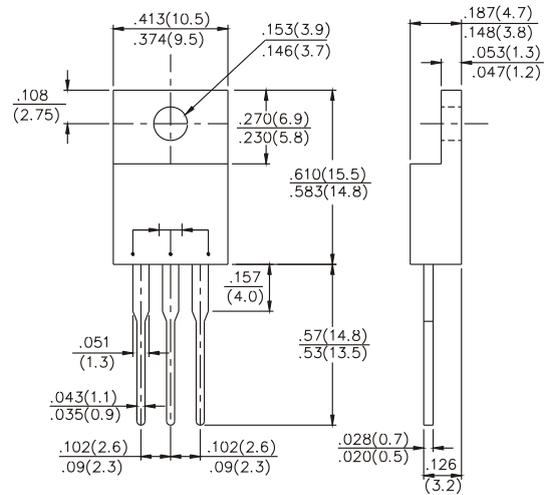
# SB3020CT thru SB30150CT

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 150 VOLTS CURRENT - 30 AMPERES



TO-220AB



Dimensions in inches and (millimeters)

### FEATURES

- Plastic Package has Underwriters Laboratory Flammability Classification 94-0 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 Capability
- For use low Voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS
- environment substance directive request

### MECHANICAL DATA

Case : TO220AB Molded plastic  
 Terminals : Lead solderable per MIL-STD-202, Method 208  
 Polarity : As Marked on Body  
 Mounting Position : Any  
 Weight : 0.08ounces, 2.24gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave, 60Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

PARAMETER	SB 3020CT	SB 3030CT	SB 3040CT	SB 3050CT	SB 3060CT	SB 3080CT	SB 30100CT	SB 30150CT	UNITS
Maximum Repetitive Peak Reverse Voltage	20	30	40	50	60	80	100	150	Volts
Maximum RMS Voltage	14	21	28	35	42	56	70	105	Volts
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	150	Volts
Maximum Average Forward Rectified Current at T <sub>c</sub> =90°C	30								Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	275							200	Amps
Maximum Forward Voltage at 15A per element	0.55		0.75		0.85		0.95		Volts
Maximum DC Reverse Current at Rated T <sub>c</sub> =25°C DC Blocking Voltage T <sub>c</sub> =100°C	0.5 100							0.1 7	mA
Typical Junction Resistance Note R <sub>θJA</sub>	100								°C / W
Operating and Storage Temperature Range T <sub>J</sub>	-55 to +150								°C

NOTE:

1. Thermal Resistance Junction to Ambient

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### RATINGS AND CHARACTERISTIC CURVES SB3020CT THRU SB30150CT

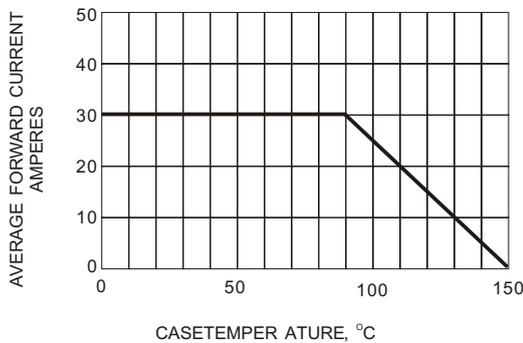


Fig.1- FORWARD CURRENT DERATING CURVE

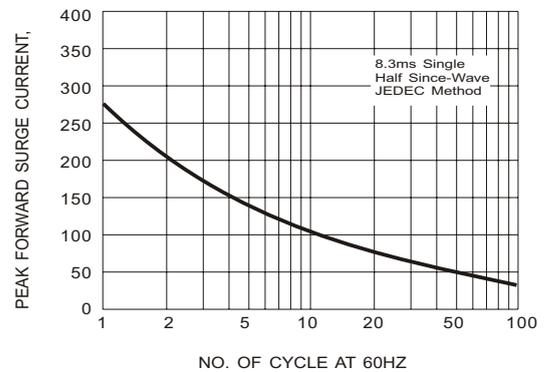


Fig.2- TMAXIMUM NON - REPETITIVE SURGE CURRENT

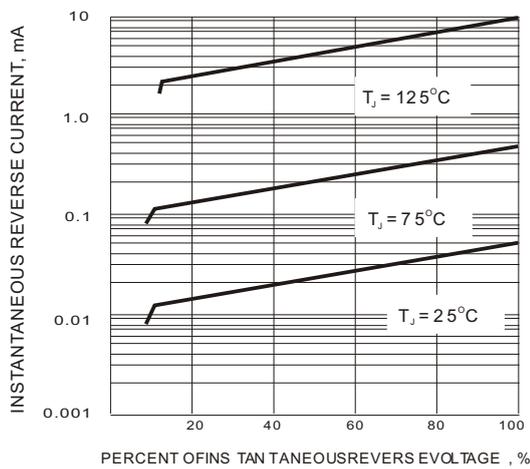


Fig.3- TYPICAL REVERSE CHARACTERISTIC

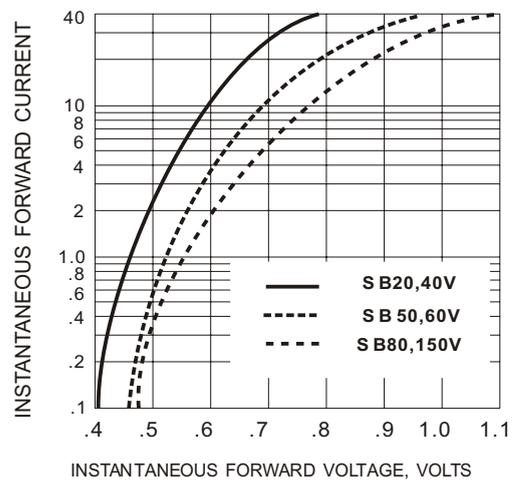


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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