

## SCHOTTKY BARRIER RECTIFIER

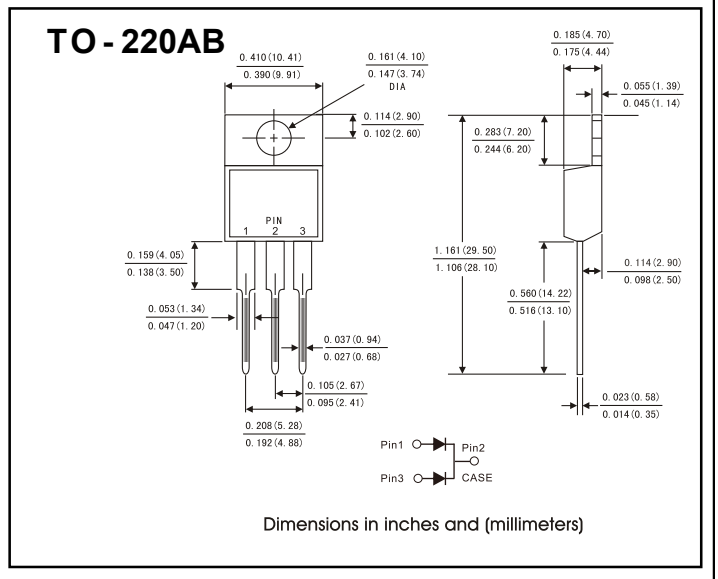
VOLTAGE RANGE: 20 --- 200 V  
CURRENT:30.0A

### FEATURES

- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

- ◇ Case:JEDEC TO-220AB, molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.08ounces,2.24 grams
- ◇ Mounting position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

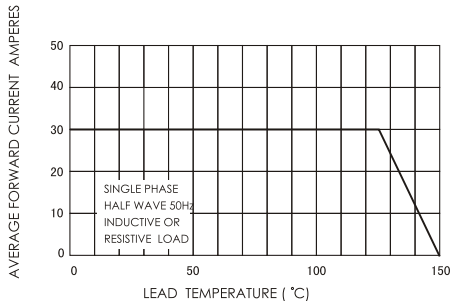
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

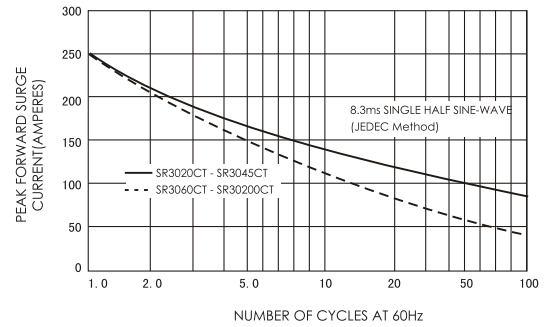
	Symbols	SR 3020CT	SR 3030CT	SR 3040CT	SR 3045CT	SR 3060CT	SR 3080CT	SR 30100CT	SR 30150CT	SR 30200CT	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	45	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	32	42	56	70	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	45	60	80	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	15.0									Amps
	Total device	30.0									
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	250.0									Amps
Maximum instantaneous forward voltage at 30.0 A	V <sub>F</sub>	0.60			0.75		0.85		0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T <sub>c</sub> = 25°C	0.2									mA
	T <sub>c</sub> = 125°C	30			50						
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	3.0									°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150									°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C

- NOTE: 1. Pulse test:300us pulse width,1% duty cycle.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal resistance junction to ambient

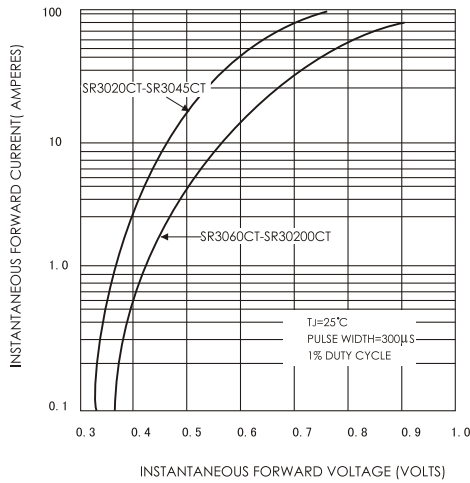
**FIG.1-FORWARD CURRENT DERATING CURVE**



**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER DIODE**



**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

