

# SR2020CT THRU SR20200CT

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 20Amperes

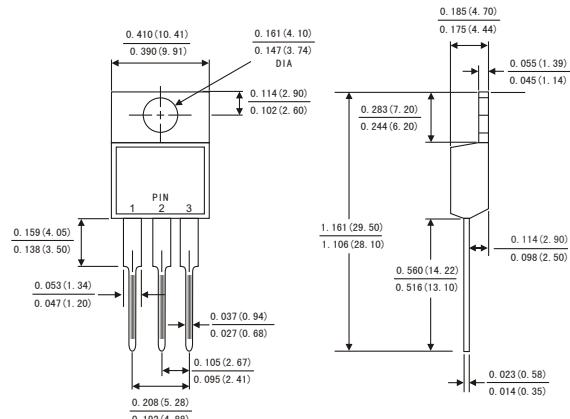


### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:260° C/10 seconds,, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### TO-220AB



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SR 2020CT	SR 2030CT	SR 2045CT	SR 2050CT	SR 2060CT	SR 2080CT	SR 20100CT	SR 20150CT	SR 20200CT	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	45	50	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	31.5	35	42	56	70	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	45	50	60	80	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	I <sub>(AV)</sub> Per leg Total device						10.0	20.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>						200.0				Amps
Maximum instantaneous forward voltage at 20.0 A	V <sub>F</sub>		0.60		0.75		0.85	0.90	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub> T <sub>c</sub> =25°C T <sub>c</sub> =125°C					0.2					mA
			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

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance from junction to case

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FIG.1-FORWARD CURRENT DERATING CURVE

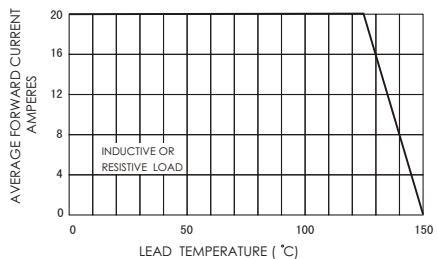


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

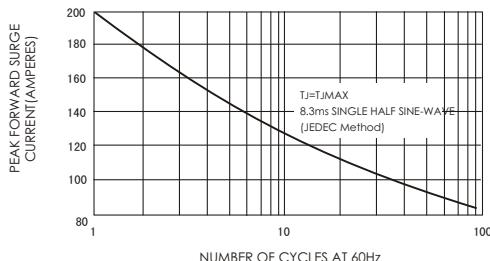


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

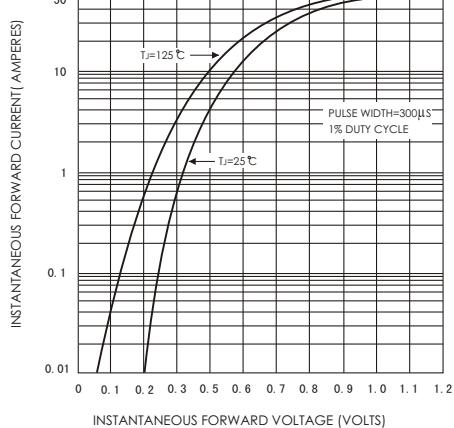


FIG.4-TYPICAL REVERSE CHARACTERISTICS

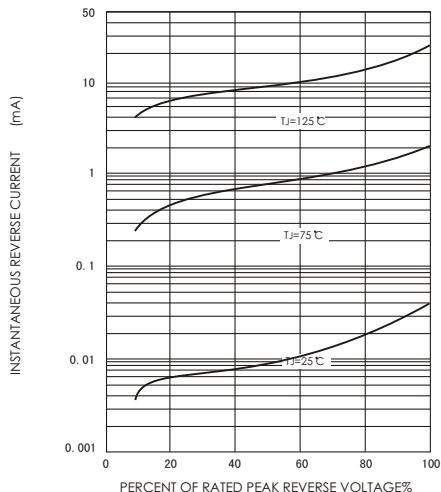


FIG.5-TYPICAL JUNCTION CAPACITANCE

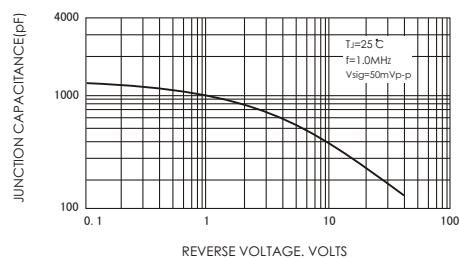


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

