

# SCHOTTKY BARRIER RECTIFIER SR2020FCT THRU SR20200FCT 20 to 200 V 20A

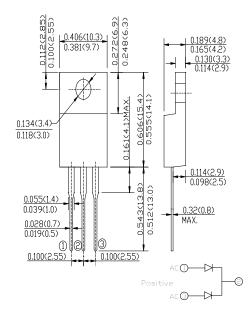
## **Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over voltage 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:250 ℃/10 seconds, 0.25"(6.35mm)from case

# **Mechanical Data**

- Case: JEDEC ITO-220AB molded plastic body
- Terminals: Lead solder able per MIL-STD-750, method 2026
- Polarity: As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position: Any
- Weight: 0.08ounce,2.24 grams

## ITO-220AB



Dimensions in inches and (millimeters)

# **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%.

	Symbols	SR 2020 FCT	SR 2030 FCT	SR 2040 FCT	SR 2045 FCT	SR 2060 FCT	SR 2080 FCT	SR 20100 FCT	SR 20150 FCT	SR 20200 FCT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.8	42	57	71	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	60	80	100	150	200	Volts
Maximum average forward rectified current see Fig.1	I <sub>(AV)</sub>	20.0									Amp
Peak Forward Surge Current, 8.3ms single half- sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200									Amp
Maximum instantaneous forward voltage at 10.0 A(Note 1)	V <sub>F</sub>	0.60				0.75	0.85		0.90	0.95	Volts
Maximum Reverse Current $T_A \!\!=\!\! 25^{\circ}\!$	I <sub>R</sub>	0.5									A
		15				50					mA
Typical Thermal Resistance (Note 2)	R⊕ <b>JC</b>	2.5									°C/W
Operating Temperature Range	TJ	-65 to +150									$^{\circ}$
Storage Temperature Range	T <sub>STG</sub>	-65 to +150									$^{\circ}$

#### **NOTES:**

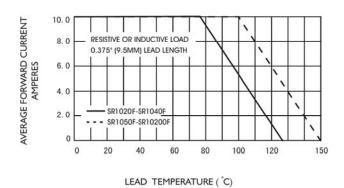
- 1. Pulse test: 300  $\mu$  s pulse width, 1% duty cycle
- 2. Thermal resistance from junction to case



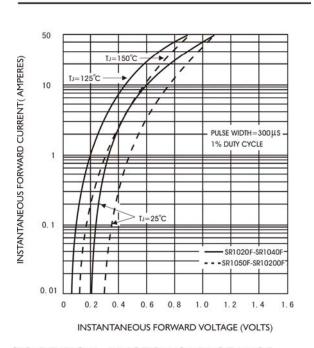
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# RATINGS AND CHARACTERISTIC CURVES (SR2020FCT THRU SR20200FCT)

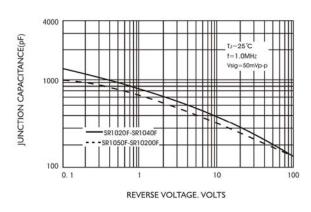
### FIG.1-FORWARD CURRENT DERATING CURVE



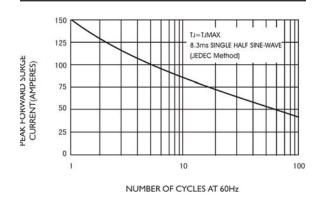
# FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



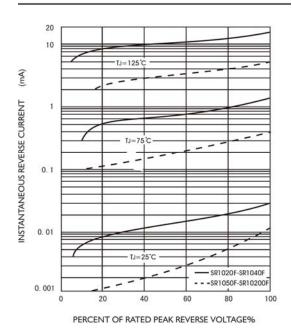
### FIG.5-TYPICAL JUNCTION CAPACITANCE



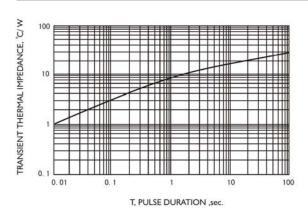
# FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



#### FIG.4-TYPICAL REVERSE CHARACTERISTICS



#### FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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