

# SR2020 THRU SR20200

## SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V

Forward Current - 20 A

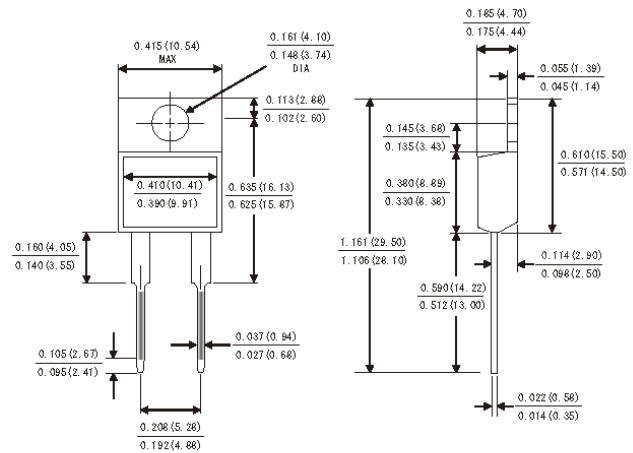
### Features

- Plastic package has UL Flammability Classification 94V-0
- Metal silicon, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- Guard ring for overvoltage protection
- High surge capability

### Mechanical Data

- **Case:** Molded plastic body, TO-220AC
- **Terminals:** lead solderable per MIL-STD-750, Method 2026 guaranteed
- **Polarity:** As marked
- **Mounting position:** Any

### TO-220AC



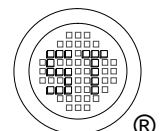
Dimensions in inches and (millimeters)

### 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%.

Parameter	Symbols	SR2020	SR2030	SR2040	SR2050	SR2060	SR2080	SR20A0	SR20150	SR20200	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	20									A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	200									A
Maximum Forward Voltage at 20 A	V <sub>F</sub>	0.6			0.75		0.85		0.9	0.95	V
Maximum Reverse Current T <sub>C</sub> = 25 °C at Rated DC Blocking Voltage T <sub>C</sub> = 125 °C	I <sub>R</sub>	0.1									mA
		30			50						
Typical Thermal Resistance <sup>1)</sup>	R <sub>θJC</sub>	3									°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

<sup>1)</sup> Thermal Resistance from junction to case per leg.



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FIG.1-FORWARD CURRENT DERATING CURVE

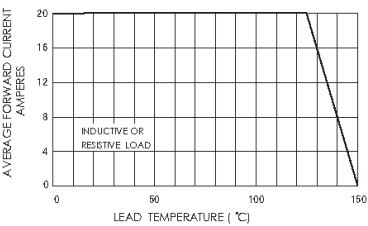


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

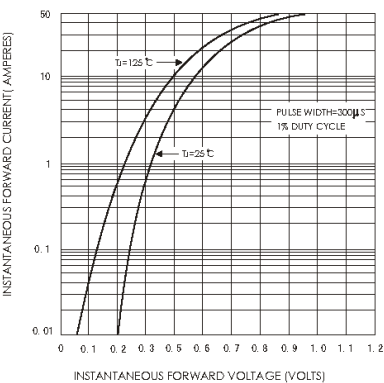


FIG.5-TYPICAL JUNCTION CAPACITANCE

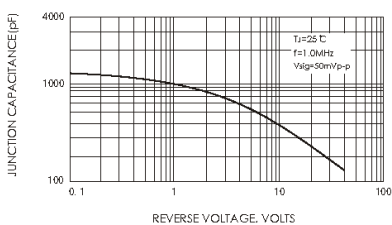


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

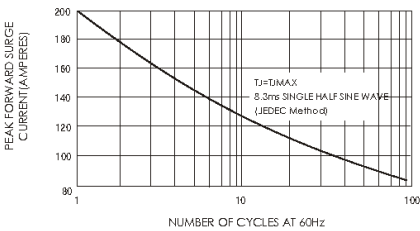


FIG.4-TYPICAL REVERSE CHARACTERISTICS

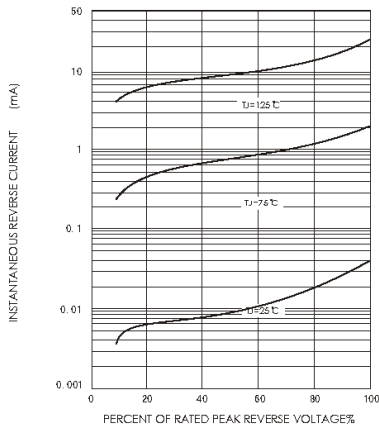


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

