

SR1020 THRU SR1060

Schottky Barrier Rectifiers

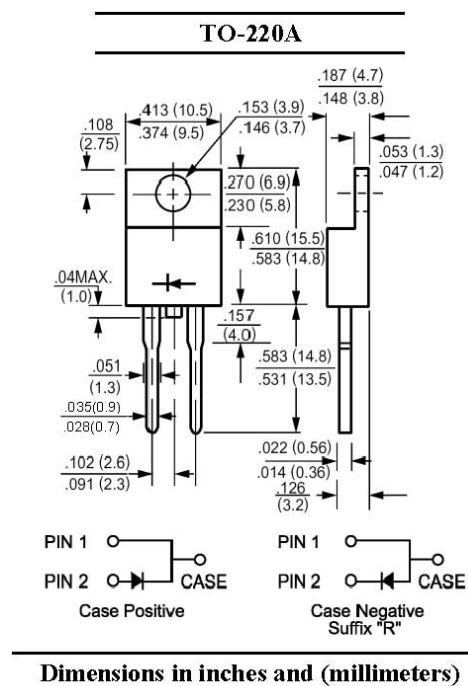
Reverse Voltage - 20 to 60 V
Forward Current - 10 A

Features

- Plastic package has UL Flammability Classification 94V-0
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low forward voltage
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- **Case:** Molded plastic body, TO-220A
- **Terminals:** leads solderable per MIL-STD-202 method 208
- **Polarity:** As marked
- **Mounting Position:** Any



Absolute Maximum Ratings and 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% .

Parameter	Symbols	SR1020	SR1030	SR1040	SR1050	SR1060	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current	I _{F(AV)}	10					A
Peak Forward Surge Current 8.3 ms Single half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150					A
Maximum Forward Voltage at 10 A and 25 °C	V _F	0.55			0.7		V
Maximum Reverse Current at Rated DC Blocking Voltage	T _C = 25 °C T _C = 125 °C I _R	1 50					mA
Typical Junction Capacitance ¹⁾	C _J	600			400		pF
Typical Thermal Resistance ²⁾	R _{θJC}	2					°C/W
Operating Temperature Range	T _J	- 55 to + 125			- 55 to + 150		°C
Storage Temperature Range	T _{stg}	- 55 to + 150					°C

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

²⁾ Thermal resistance from Junction to case per leg.

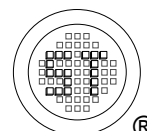


FIG.1- FORWARD CURRENT DERATING CURVE

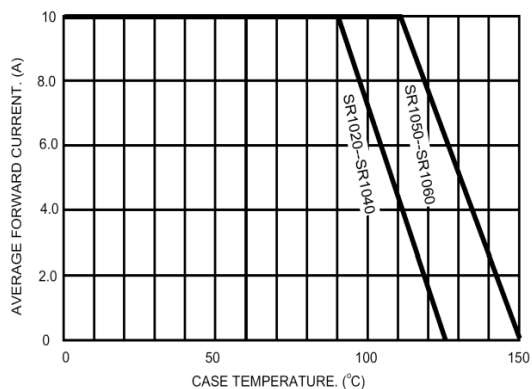


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

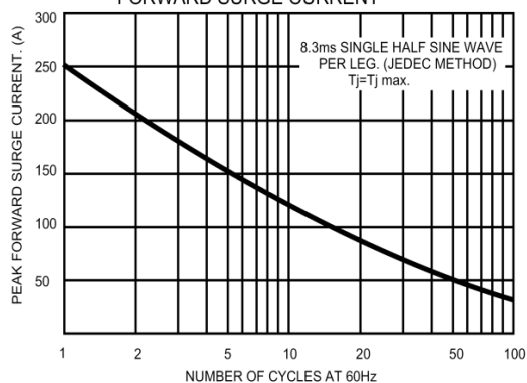


FIG.5- TYPICAL JUNCTION CAPACITANCE

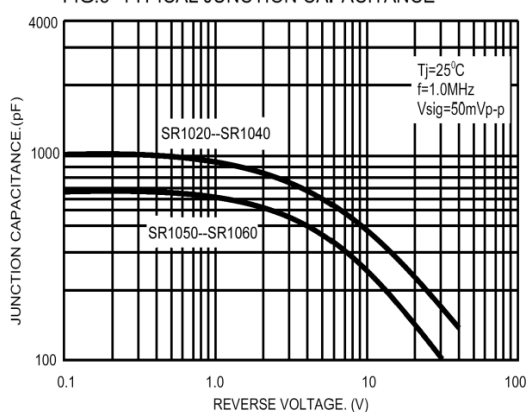


FIG.3- TYPICAL REVERSE CHARACTERISTICS

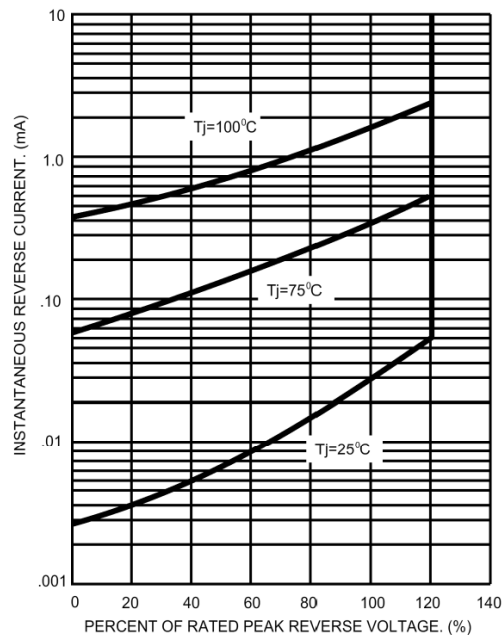


FIG.4- TYPICAL FORWARD CHARACTERISTICS

