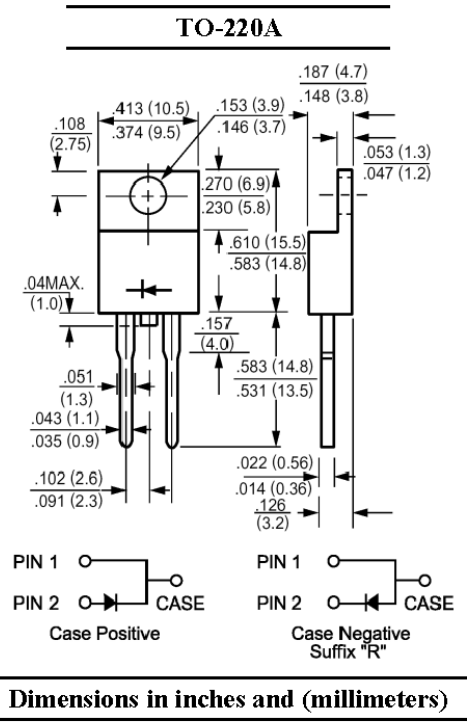
SR1020 THRU SR1060

SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage – 20 to 60 Volts
Forward Current – 10 Amperes



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, 60Hz, 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	$I_{(AV)}$	10					A
Peak Forward Surge Current 8.3mS Single half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250					A
Maximum Forward Voltage at 10A DC and 25 °C	V_F	0.55			0.7		V
Maximum Reverse Current at T_C = 25 °C at Rated DC Blocking Voltage T_C = 125 °C	I_R	1 50					mA
Typical Junction Capacitance [1]	C_J	600			400		pF
Typical Thermal Resistance [2]	$R_{\theta JC}$	2					°C/W
Operating Temperature Range	T_J	-55 to +125			-55 to +150		°C
Storage Temperature Range	T_S	-55 to +150					°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC
[2] Thermal resistance from Junction to case per leg

FIG.1- FORWARD CURRENT DERATING CURVE

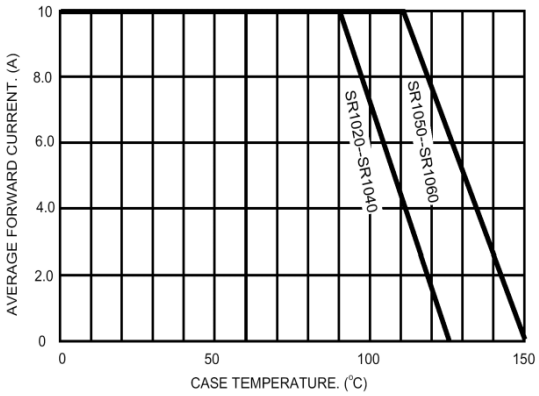


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

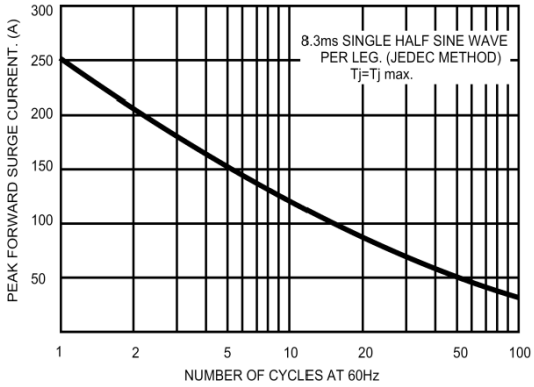


FIG.3- TYPICAL REVERSE CHARACTERISTICS

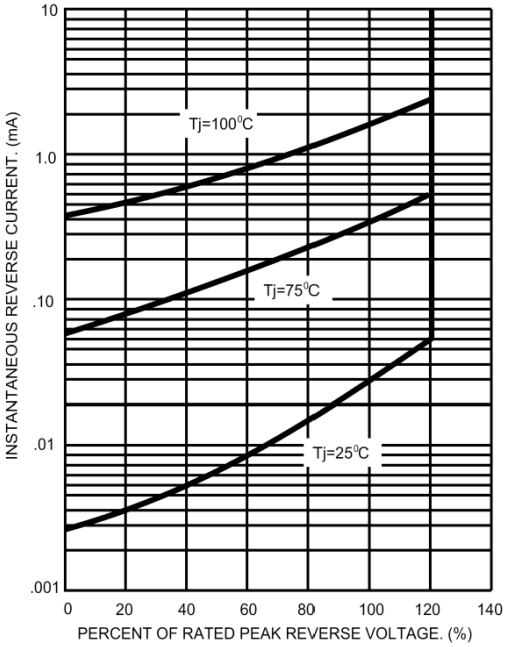


FIG.4- TYPICAL FORWARD CHARACTERISTICS

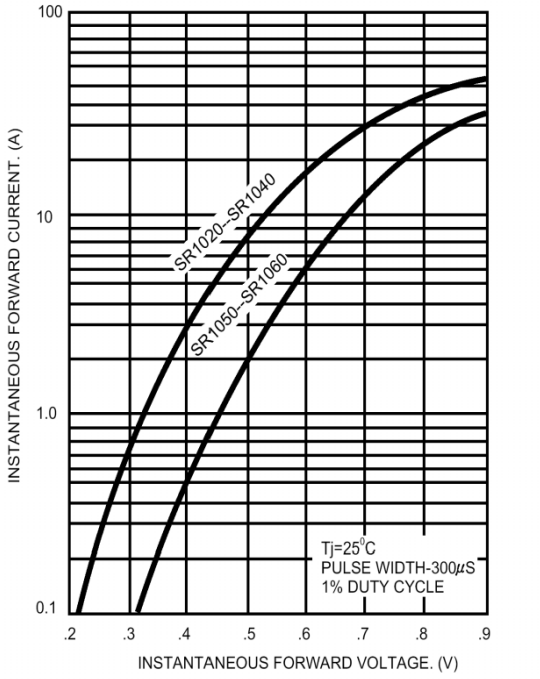


FIG.5- TYPICAL JUNCTION CAPACITANCE