



# SR1020 THRU SR1060

## 10.0 AMPS. Schottky Barrier Rectifiers



Voltage Range  
20 to 60 Volts  
Current  
10.0 Amperes

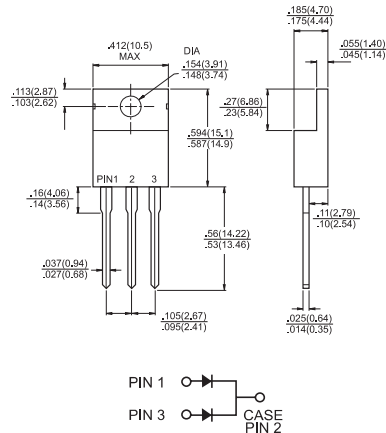
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: TO-220 molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/ .25", (6.35mm) from case.
- ✧ Weight: 2.24 grams

### TO-220



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SR 1020	SR 1030	SR 1040	SR 1050	SR 1060	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 See Fig. 1	$I_{(AV)}$	10.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	175					A
Maximum Instantaneous Forward Voltage @5.0A	$V_F$	0.55			0.70		V
Maximum D.C. Reverse Current @ $T_c=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_c=100^\circ\text{C}$	$I_R$	0.5 50					 mA mA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.0					$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	$C_j$	310					pF
Operating Junction Temperature Range	$T_J$	-65 to +125			-65 to +150		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150					$^\circ\text{C}$

Notes: 1. Thermal Resistance from Junction to Case Per Leg, Mounted on Heatsink size of 2 in x 3 in x 0.25 in Al-Plate.

2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SR1020 THRU SR1060)

FIG.1- FORWARD CURRENT DERATING CURVE

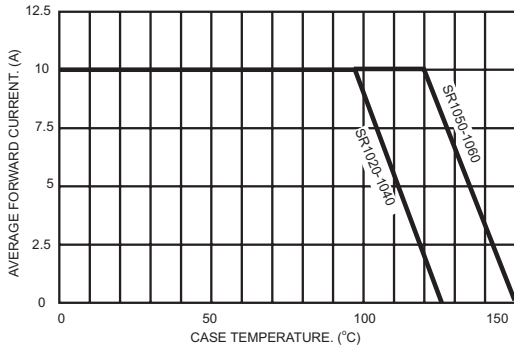


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

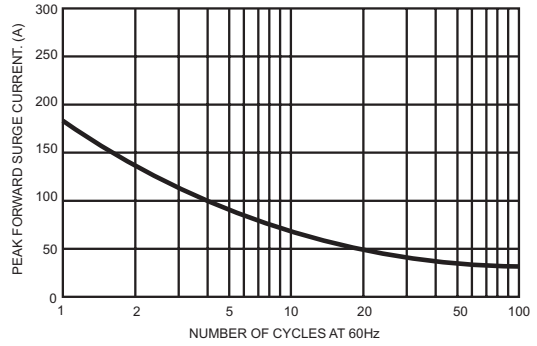


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

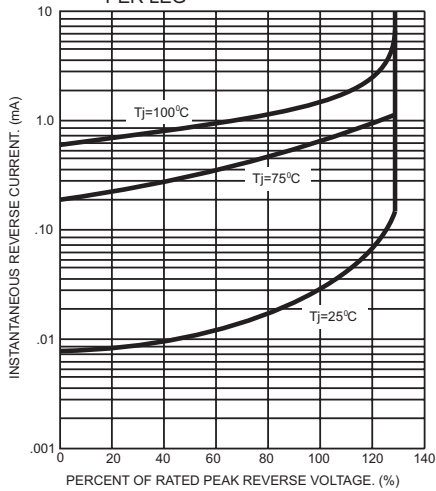


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

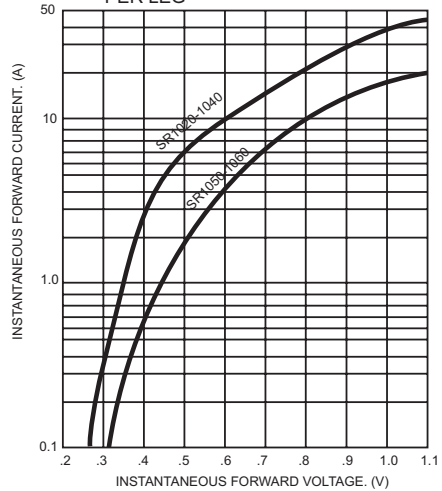


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

