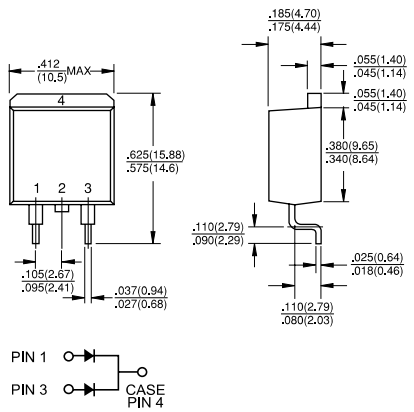
# SRS2020 THRU SRS2060

## 20.0 AMPS. Schottky Barrier Rectifiers

Voltage Range
20 to 60 Volts
Current
20.0 Amperes

**D²PAK**




**Dimensions in inches and (millimeters)**

## Features

- ✧ For surface mounted application
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

## Mechanical Data

- ✧ Cases: D²PAK molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Lead solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ✧ Weight: 1.70 grams

## 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 | SRS2020 | SRS2030 | SRS2040 | SRS2050 | SRS2060 | Units |
|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current See Fig. 1 | 20.0 | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) | 250 | | | | | A |
| Maximum Instantaneous Forward Voltage @ 10.0A | 0.55 | | | 0.70 | | V |
| Maximum D.C. Reverse Current @ Tc=25°C<br>at Rated DC Blocking Voltage @ Tc=125°C | 1.0<br>50 | | | | | mA<br>mA |
| Typical Thermal Resistance (Note 1) $R\theta JC$ | 1.5 | | | | | °C/W |
| Typical Junction Capacitance (Note 2) | 600 | | | 400 | | pF |
| Operating Junction Temperature Range $T_J$ | -65 to +125 | | | -65 to +150 | | °C |
| Storage Temperature Range $T_{STG}$ | -65 to +150 | | | | | °C |

Notes: 1. Thermal Resistance from Junction to Case Per Leg
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SRS2020 THRU SRS2060)

FIG.1- FORWARD CURRENT DERATING CURVE

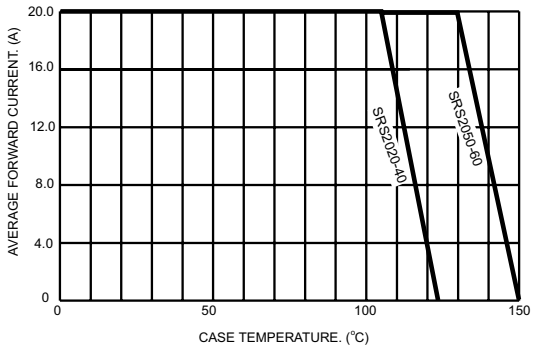



FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

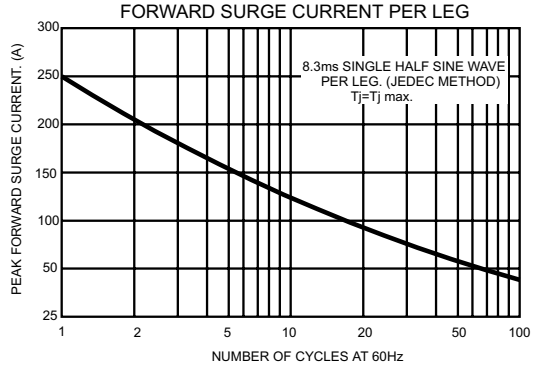



FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

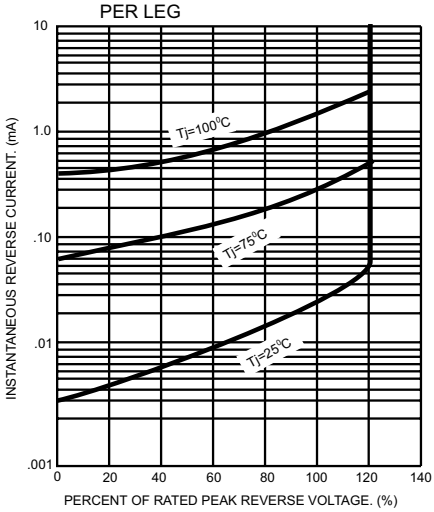



FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

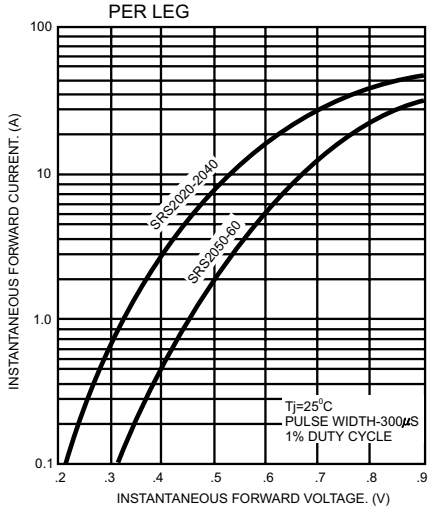



FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG