

# SR3020PT THRU SR3060PT

30.0 AMPS. Schottky Barrier Rectifiers



Voltage Range 20 to 60 Volts Current 30.0 Amperes

TO-3P/TO-247AD

### **Features**

- Dual rectifier construction, positive center-tap
- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Metal silicon junction, majority carrier conduction
- ♦ Low power loss, high efficiency
- High current capability, low VF
- ♦ High surge capability
- ♦ Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C/10seconds,0.17"(4.3mm)lead lengths at 5 lbs., (2.3kg) tension

### **Mechanical Data**

- ♦ Cases: JEDEC TO-3P/TO-247AD molded plastic
- ♦ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ♦ Polarity: As marked
- Mounting position: Any
- ♦ Weight: 0.2 ounce, 5.6 grams

# 203(5.16) -245(6.2) -225(5.7) -333(7.9) -333(7.9) -333(7.9) -333(7.9) -333(7.9) -333(7.9) -343(3.4) -117(4.3) -10779 -10

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	SR3020PT	SR3030PT	SR3040PT	SR3050PT	SR3060PT	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	٧
Maximum DC Blocking Voltage	20	30	40	50	60	V
Maximum Average Forward Rectified Current at Tc=100°C	30					Α
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	275					Α
Maximum Instantaneous Forward Voltage @ 15.0A (Note 3)	0.55 0.70				V	
Maximum D.C. Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	1.0 75					mA mA
Typical Thermal Resistance Per Leg (Note 1)	1.5					°C/W
Typical Junction Capacitance (Note 2)	750 500			00	pF	
Operating Junction Temperature Range T <sub>J</sub>	-65 to +125 -65 to +150		+150	ů		
Storage Temperature Range TSTG	-65 to +150					°C

Notes: 1. Thermal Resistance from Junction to Case Per Leg.

- 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
- 3. 300 us Pulse Width, 2% Duty Cycle





FIG.1- FORWARD CURRENT DERATING CURVE

30

24

18

10

10

10

CASE TEMPERATURE. (°C)

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

TO SURGE

FIG.3- TYPICAL REVERSE CHARACTERISTICS
PER LEG

100

Tj=100°C

Tj=75°C

100

0.01

0 20 40 60 80 100 120 140
PERCENT OF RATED PEAK REVERSE VOLTAGE. (%)



