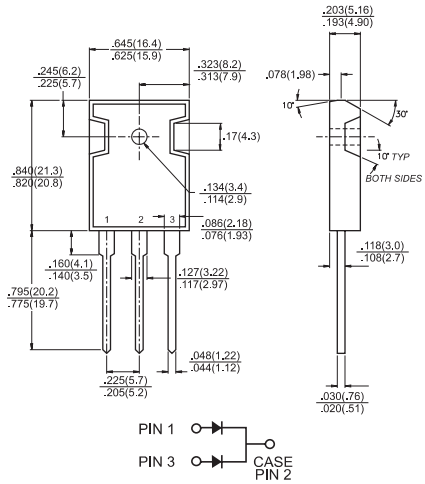
SR3020PT THRU SR30100PT

30.0 AMPS. Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
30.0 Amperes

TO-3P/TO-247AD



Dimensions in inches and (millimeters)

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: 260°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

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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	SR30 20PT	SR30 30PT	SR30 40PT	SR30 50PT	SR30 60PT	SR30 100PT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	100	V
Maximum Average Forward Rectified Current at Tc=100℃	$I_{(AV)}$	30						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300						A
Maximum Instantaneous Forward Voltage @ 15.0A (Note 3)	V_F	0.55			0.70		0.90	V
Maximum D.C. Reverse Current @ Tc=25℃ at Rated DC Blocking Voltage @ Tc=100℃	I_R	1.0 75					2.0	mA mA
Typical Thermal Resistance Per Leg (Note 1)	$R\theta_{JC}$	1.5						℃/W
Typical Junction Capacitance (Note 2)	Cj	750			500		340	pF
Operating Junction Temperature Range	T_J	-65 to +125			-65 to +150			℃
Storage Temperature Range	T_{STG}	-65 to +150						℃

Notes: 1. Thermal Resistance from Junction to Case Per Leg, with Heatsink size (4" x 6" x 0.25") Al-Plate.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
3. 300 us Pulse Width, 2% Duty Cycle

RATINGS AND CHARACTERISTIC CURVES (SR3020PT THRU SR30100PT)

FIG.1- FORWARD CURRENT DERATING CURVE

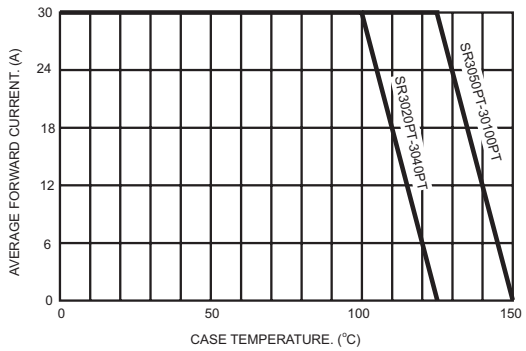


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

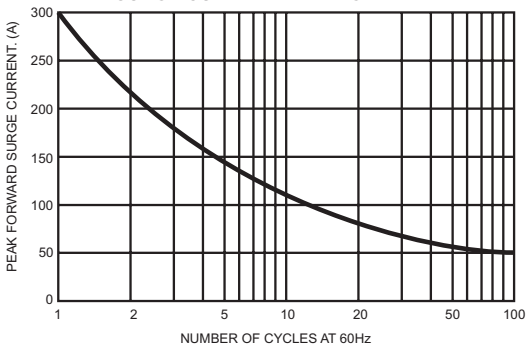


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

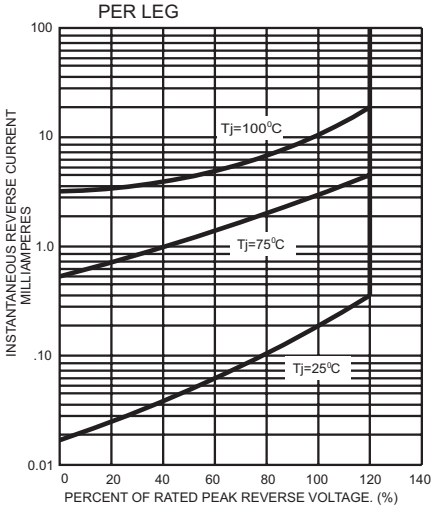


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

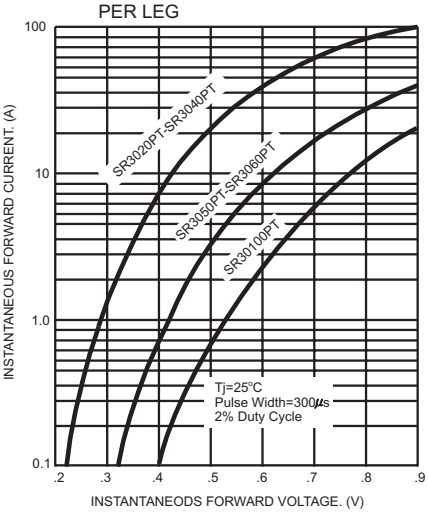


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG