



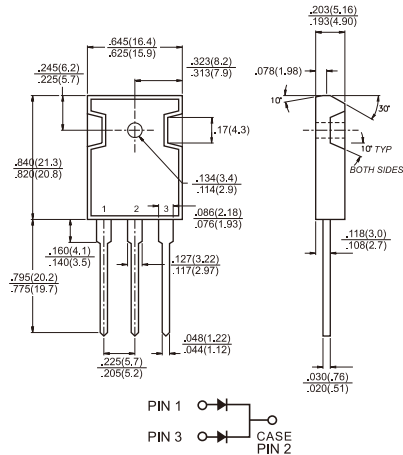
SR4020PT - SR40100PT

40.0 AMPS. Schottky Barrier Rectifiers

TO-3P/TO-247AD

Features

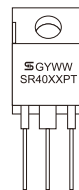
- ✦ UL Recognized File # E-326243
- ✦ Dual rectifier construction, positive center-tap
- ✦ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ✦ Metal silicon junction, majority carrier conduction
- ✦ Low power loss, high efficiency
- ✦ High current capability, low VF
- ✦ 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/ 10 seconds, 0.17"(4.3mm)lead lengths at 5 lbs., (2.3kg) tension
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode.



Dimensions in inches and (millimeters)

Mechanical Data

- ✦ Cases: JEDEC TO-3P/TO-247AD molded plastic
- ✦ Terminals: Pure tin plated, lead free. solderable per MIL-STD-750, Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Weight: 6.14 grams



Marking Diagram

SR40XXPT = Specific Device Code
 G = Green Compound
 Y = Year
 WW = Work Week

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 4020 PT	SR 4030 PT	SR 4040 PT	SR 4050 PT	SR 4060 PT	SR 4090 PT	SR 40100 PT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current at $T_A=100^\circ C$	$I_{F(AV)}$	40							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	400							A
Maximum Instantaneous Forward Voltage 20.0A	V_F	0.55		0.70		0.90		V	
Maximum D.C. Reverse Current at Rated DC Blocking Voltage (Note 1)	I_R	@ $T_A=25^\circ C$			1.0		0.5		mA
		@ $T_A=100^\circ C$			30		20		mA
		@ $T_A=125^\circ C$			-		10		mA
Typical Junction Capacitance (Note 2)	C_j	1100		600		550		pF	
Typical Thermal Resistance Per Leg (Note 3)	$R_{\theta JC}$	1.2							$^\circ C/W$
Operating Junction Temperature Range	T_J	-65 to +125			-65 to +150				$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ C$

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

RATINGS AND CHARACTERISTIC CURVES (SR4020PT THRU SR40100PT)

FIG.1- FORWARD CURRENT DERATING CURVE

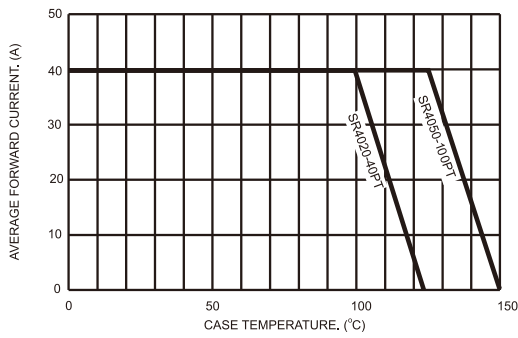


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

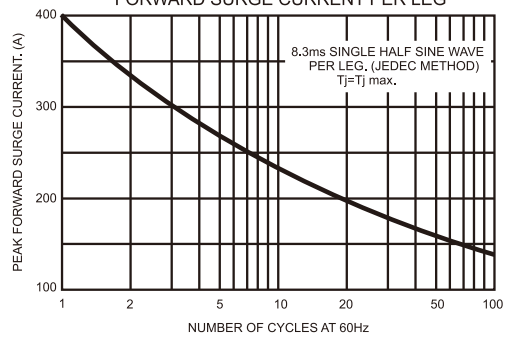


FIG.3- TYPICAL FORWARD CHARACTERISTICS PER LEG

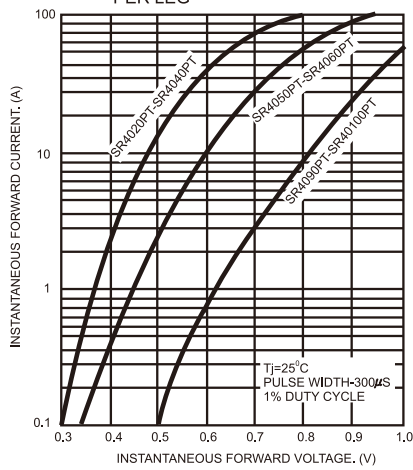


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

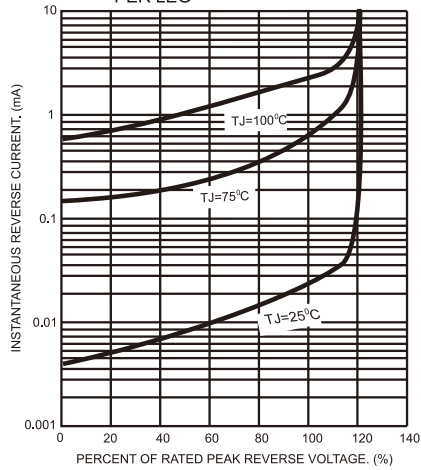


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

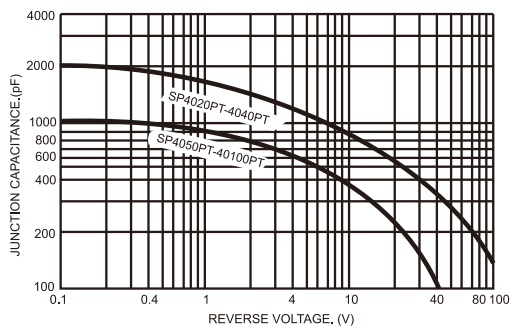


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

