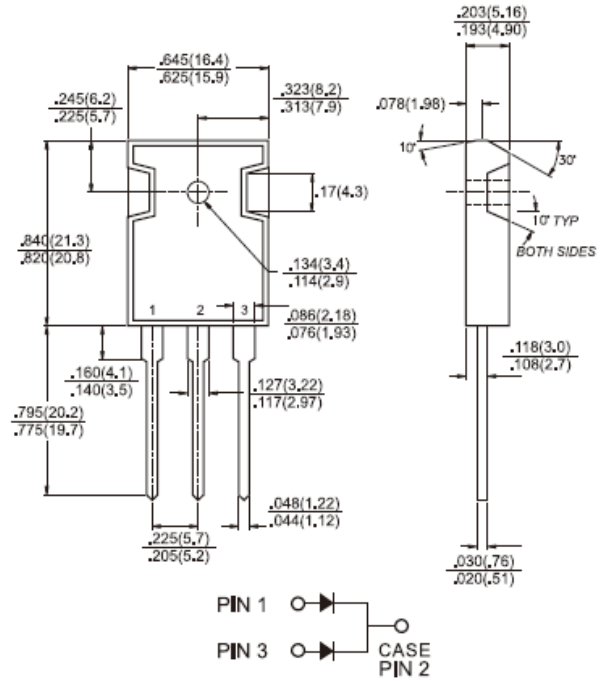




### Features

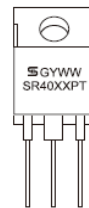
- ✧ UL Recognized File # E-326243
- ✧ Dual rectifier construction, positive center-tap
- ✧ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ✧ Metal silicon junction, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low VF
- ✧ High surge reliability
- ✧ Epitaxial construction
- ✧ For use in low voltage, high frequency invertors, 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



### 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

### Dimensions in inches and (millimeters)



#### 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 $T_A=100^\circ\text{C}$	$I_{F(AV)}$	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 (Note 1) @20 A	$V_F$	0.55		0.70		0.90		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	@ $T_A=25^\circ\text{C}$		1.0		0.5		mA	
		@ $T_A=100^\circ\text{C}$		30		20		mA	
		@ $T_A=125^\circ\text{C}$		-		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							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 65 to + 125			- 65 to + 150				$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150							$^\circ\text{C}$

Note 1 : 300 us Pulse Width, 2% Duty Cycle

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

Note 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

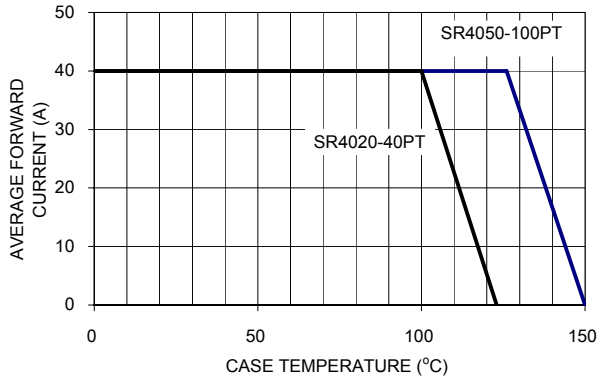


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

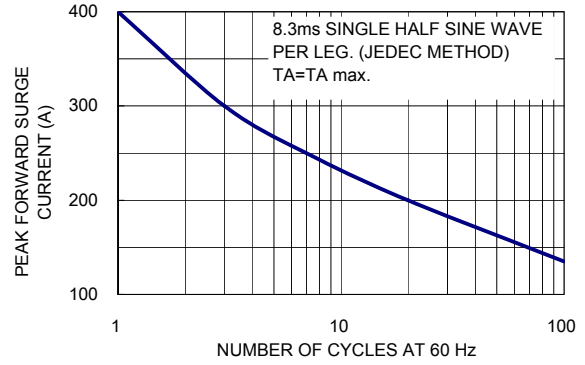


FIG. 3- TYPICAL FORWARD CHARACTERISTICS PER LEG

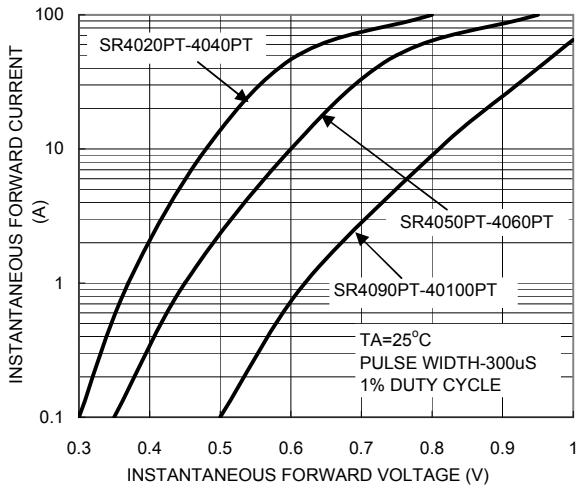


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER LEG

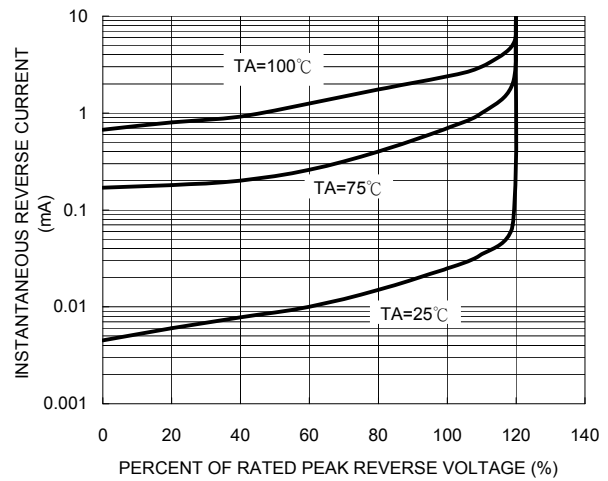


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG

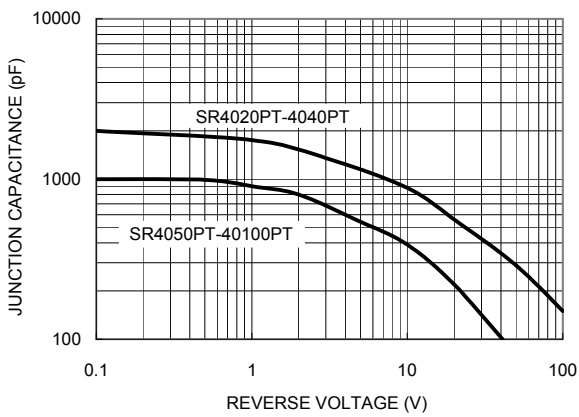


FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

