



RoHS
COMPLIANCE

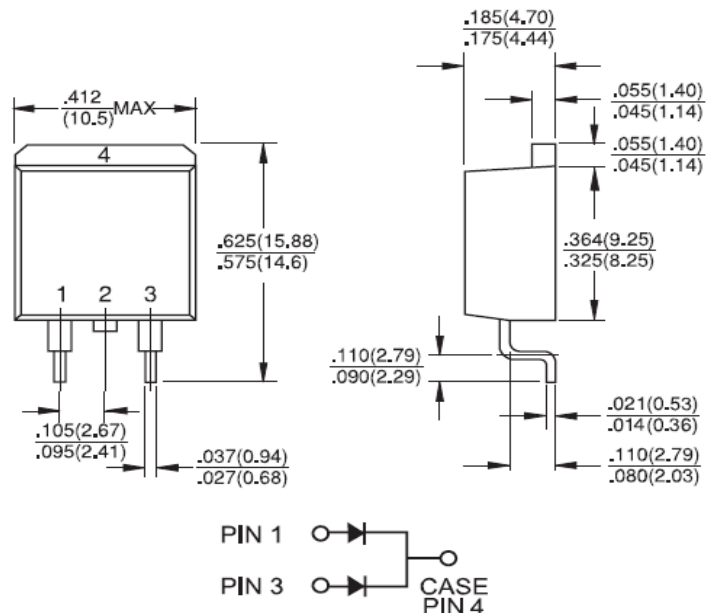


Features

- ◇ UL Recognized File #E-326854
- ◇ For surface mounted application
- ◇ Ideal for automated pick & place
- ◇ Low forward loss, high efficiency
- ◇ High current capability, low VF
- ◇ High reliability
- ◇ Epitaxial construction
- ◇ Guard-ring for transient protection
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ◇ Case: D²PAK molded plastic
- ◇ Epoxy: UL 94V-0 rate flame retardant
- ◇ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ◇ Polarity: As marked
- ◇ High temperature soldering guaranteed:
260°C/10 seconds at terminals
- ◇ Weight: 1.36 grams



Dimensions in inches and (millimeters)

Marking Diagram



- SRS20XX = 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	SRS 2020	SRS 2030	SRS 2040	SRS 2050	SRS 2060	SRS 2090	SRS 20100	SRS 20150	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current	I _{F(AV)}	20								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	200								A
Maximum Instantaneous Forward Voltage (Note 1) @10A	V _F	0.55			0.70		0.92		1.02	V
Maximum Reverse Current @ Rated VR T _A =25 °C T _A =100 °C T _A =125°C	I _R	0.5					0.1			mA
		15			10		-			
		-					5			
Typical Junction Capacitance (Note 2)	C _j	600			400		350			pF
Typical Thermal Resistance Per Leg	R _{θJC}	1.5								°C/W
Operating Temperature Range	T _J	- 65 to + 125					- 65 to + 150			°C
Storage Temperature Range	T _{STG}	- 65 to + 150								°C

Note 1: Pulse Test with PW=300u sec, 1% Duty Cycle

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

RATINGS AND CHARACTERISTIC CURVES (SRS2020 THRU SRS20150)

FIG.1 FORWARD CURRENT DERATING CURVE

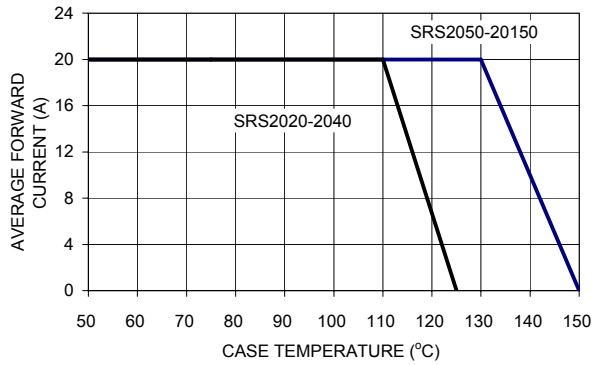


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

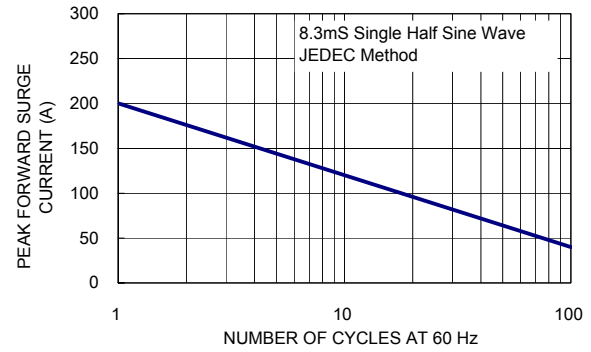


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

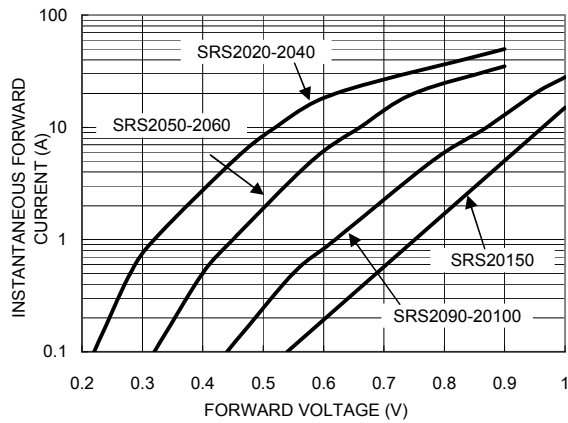


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

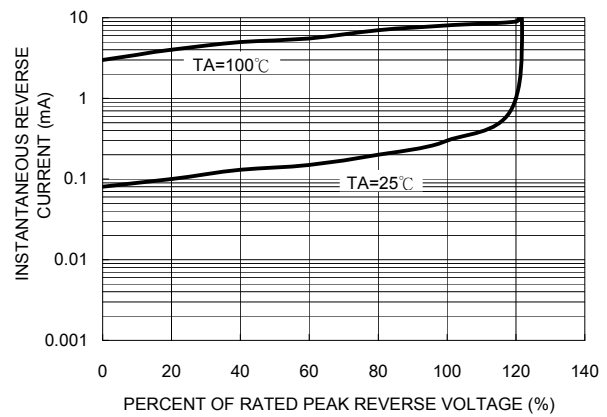


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

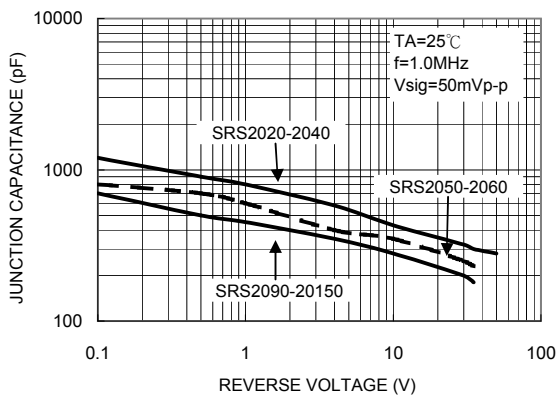


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

