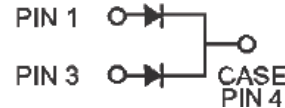
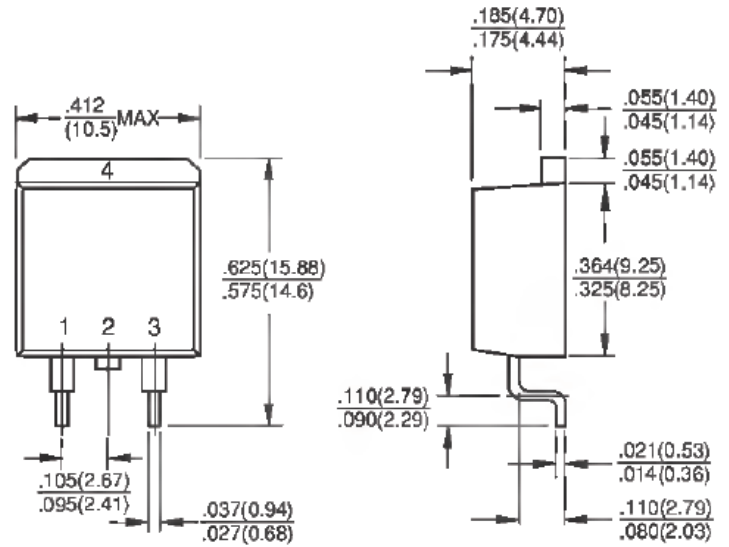




Features

- ✧ UL Recognized File #E-326854
- ✧ For surface mounted application
- ✧ Ideal for automated pick & place
- ✧ Low power 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, leads soldweable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds at terminals
- ✧ Weight: 1.35 grams

Dimensions in inches and (millimeters)

Marking Diagram



- SRS10XX = 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 1020	SRS 1030	SRS 1040	SRS 1050	SRS 1060	SRS 1090	SRS 10100	SRS 10150	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	$I_{F(AV)}$	10								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	120								A
Maximum Instantaneous Forward Voltage (Note 1) @ 5.0A	V_F	0.55		0.70		0.90		1.00		V
Maximum Reverse Current @ Rated VR $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	0.5				0.1				mA
		15		10		-				
		-				5				
Typical Junction Capacitance (Note 2)	C_j	400								pF
Typical Thermal Resistance	$R_{\theta JC}$	2								°C/W
Operating Temperature Range	T_J	- 65 to + 125				- 65 to + 150				°C
Storage Temperature Range	T_{STG}	- 55 to + 150								°C

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

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

RATINGS AND CHARACTERISTIC CURVES (SRS1020 THRU SRS10150)

FIG.1 FORWARD CURRENT DERATING CURVE

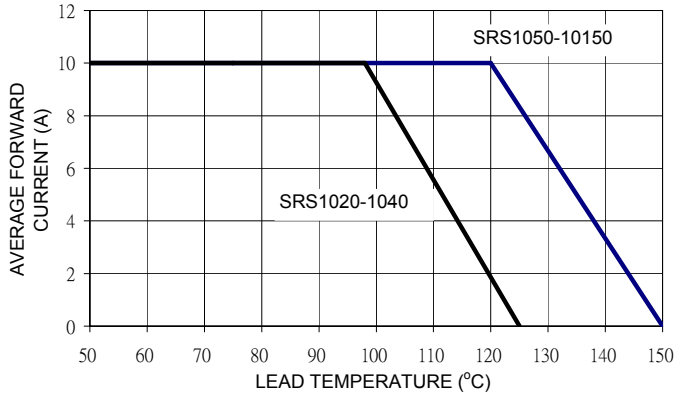


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

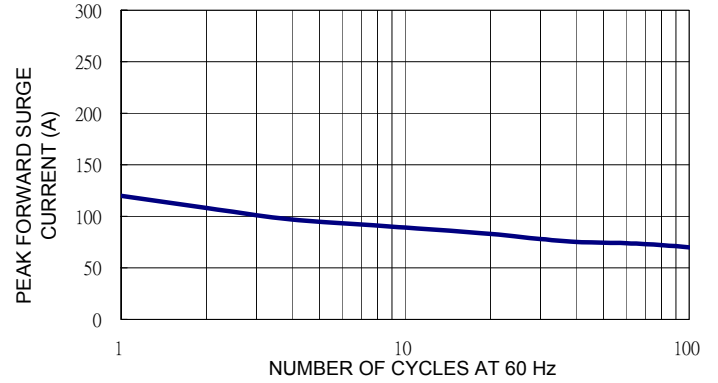


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

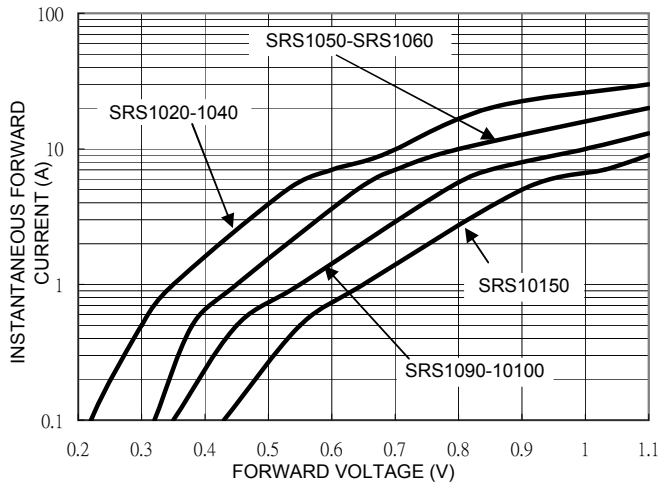


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

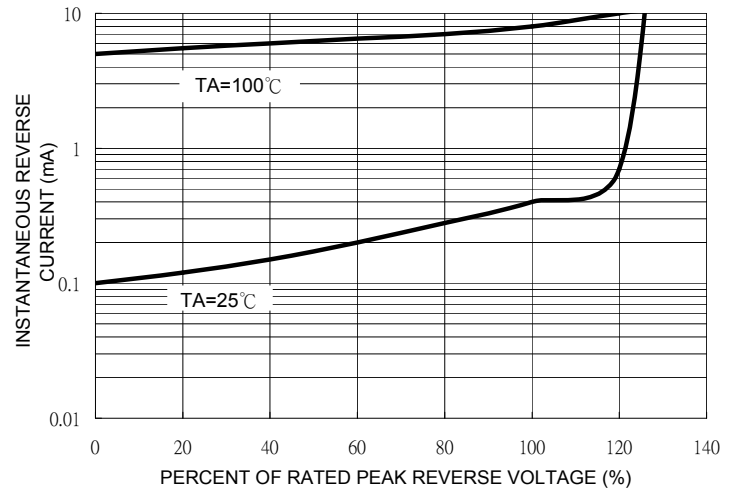


FIG. 5 TYPICAL JUNCTION CAPACITANCE

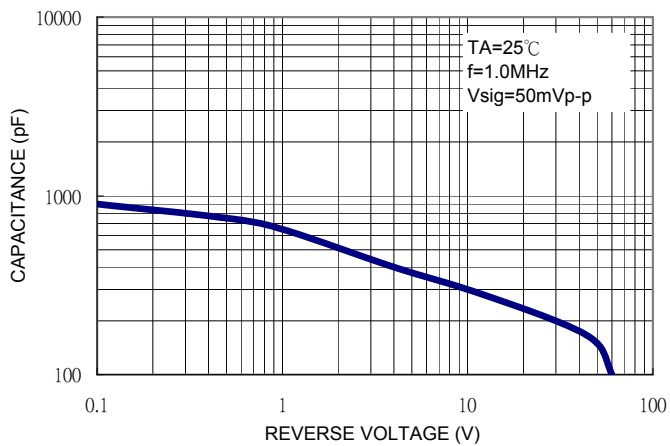


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

