

SRAS2020 - SRAS20150

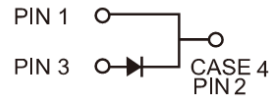
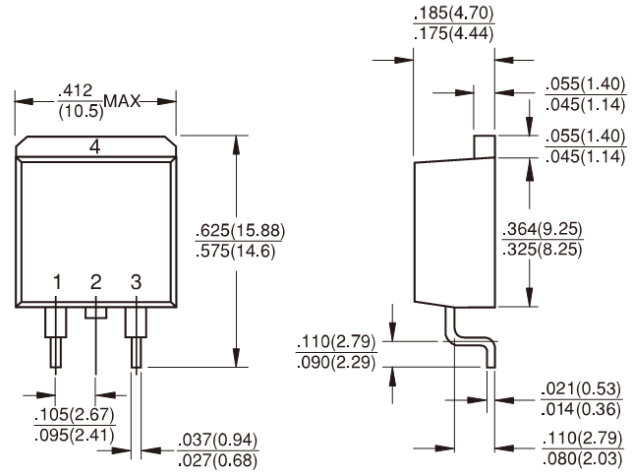
20.0AMPS. Surface Mount Schottky Barrier Rectifiers

D²PAK



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, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ◇ Polarity: As marked
- ◇ High temperature soldering guaranteed: 260°C/10 seconds/.25", (6.35mm) from case
- ◇ Weight: 1.70 grams

Dimensions in inches and (millimeters)

Marking Diagram



- SRAS20XX = 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	SRAS 2020	SRAS 2030	SRAS 2040	SRAS 2050	SRAS 2060	SRAS 2090	SRAS 20100	SRAS 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}	330								A	
Maximum Instantaneous Forward Voltage (Note 1) @ 20A	V _F	0.57			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	1400								pF	
Typical Thermal Resistance (Note 3)	R _{θJC}	1.5								°C/W	
Operating Temperature Range	T _J	- 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: Measure at 1MHz and Applied Reverse Voltage of 4.0V D.C.

Note 3: Mounted on Heatsink Size of 2" x 3" x 0.25" Al-Plate

RATINGS AND CHARACTERISTIC CURVES (SRAS2020 THRU SRAS20150)

FIG.1 FORWARD CURRENT DERATING CURVE

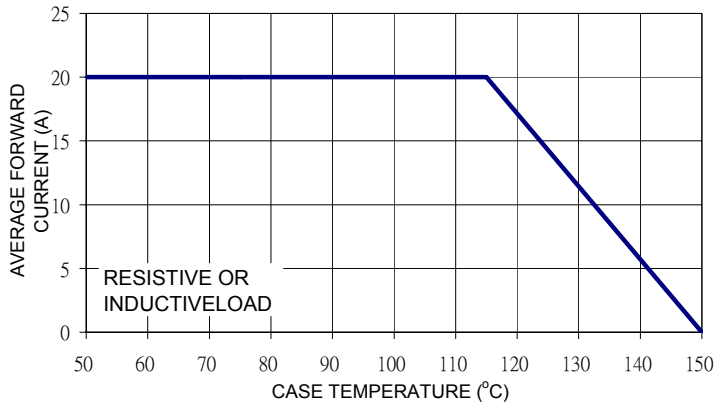


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

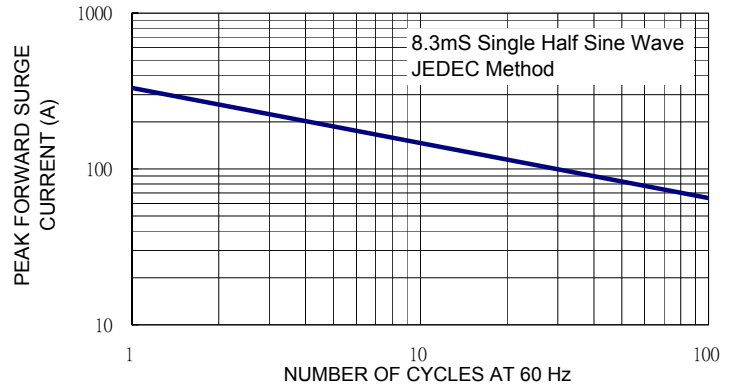


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

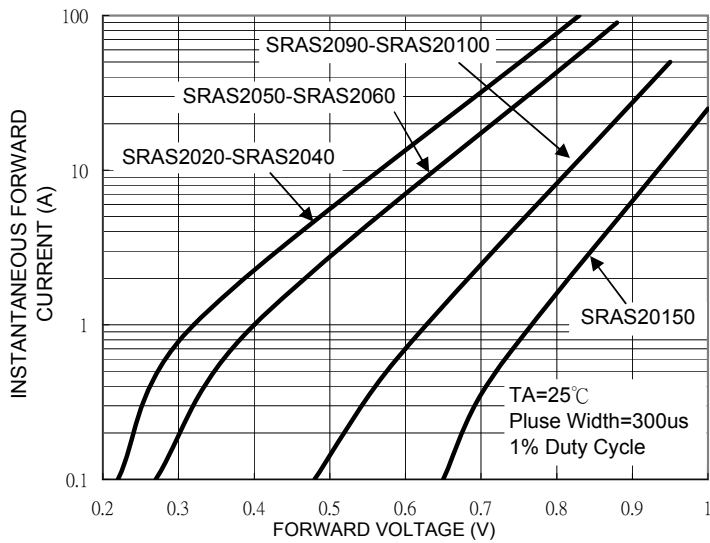


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

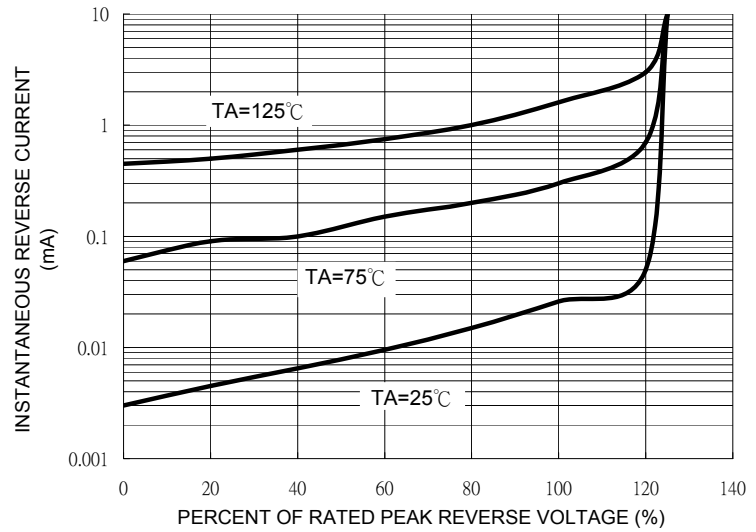


FIG. 5 TYPICAL JUNCTION CAPACITANCE

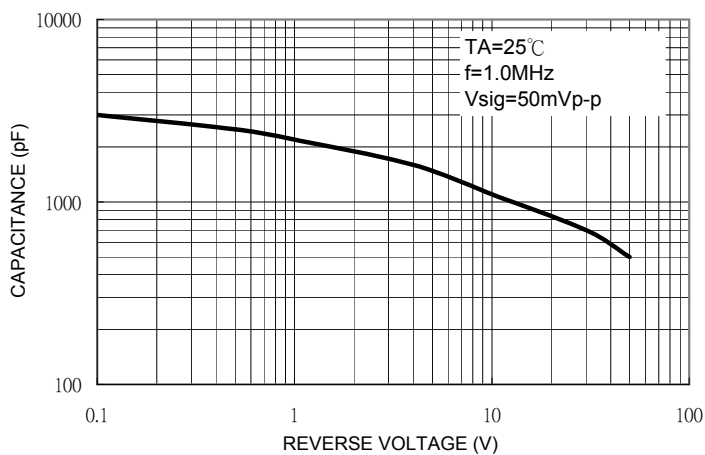


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

