



SRA820 - SRA8150

8.0 AMPS. Schottky Barrier Rectifiers

TO-220AC

Features

- ✦ Low power loss, high efficiency.
- ✦ Plastic material used carries Underwriters Laboratory Classifications UL 94V-0
- ✦ Metal silicon junction, Majority carrier conduction.
- ✦ High current capability, Low forward voltage drop.
- ✦ High surge current capability.
- ✦ Guard-ring for transient protection.
- ✦ For use in Power supply - Output rectification, power management, instrumentation.
- ✦ Green compound with suffix "G" on packing code & prefix "G" on date code.

Mechanical Data

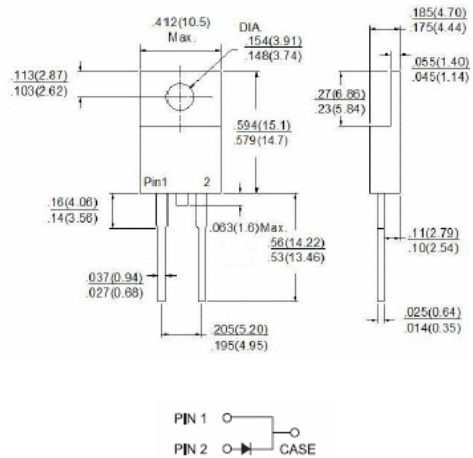
- ✦ Cases: JEDEC TO-220AC Molded plastic
- ✦ Epoxy : UL 94V-0 rate flame retardant
- ✦ Terminal: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✦ High temperature soldering guaranteed: 260oC/10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✦ Polarity: As marked
- ✦ Mounting position : Any
- ✦ Mounting Torque : 5 in.-lbs. max.
- ✦ Weight: 2.24 gram

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%



Dimensions in inches and (millimeters)



Marking Diagram

SRA8XX = Specific Device Code
 G = Green Compound
 Y = Year
 WW = Work Week

Type Number	Symbol	SRA 820	SRA 830	SRA 840	SRA 85-0	SRA 860	SRA 890	SRA 8100	SRA 8150	Units	
Maximum Recurrent 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 See Fig. 1	$I_{(AV)}$	8.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150								A	
Maximum Instantaneous Forward Voltage at 8.0A	V_F	0.55		0.7		0.92		1.05		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.5				0.1				uA	
		15		10		5.0				mA	
Typical Junction Capacitance (Note 1)	C_j	400		300				250		pF	
Typical Thermal Resistance per leg.(Note 2)	$R\theta_{JC}$	4.0								°C/W	
Operating Temperature Range	T_J	-65 to +125			-65 to +150					°C	
Storage Temperature Range	T_{STG}	-65 to +150									°C

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

2. Thermal Resistance from junction to case Per Leg, with Heatsink size (2"x3"x0.25") Al-plate.

RATINGS AND CHARACTERISTIC CURVES (SRA820 Thru SRA8150)

FIG.1 Forward Current Derating Curve

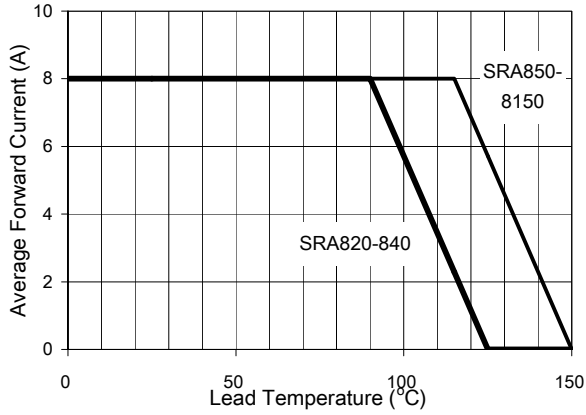


FIG 2 Maximum Forward Surge Current

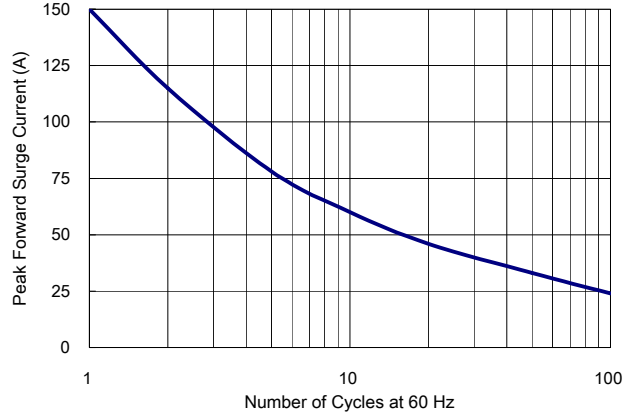


FIG 3 Typical reverse leakage current

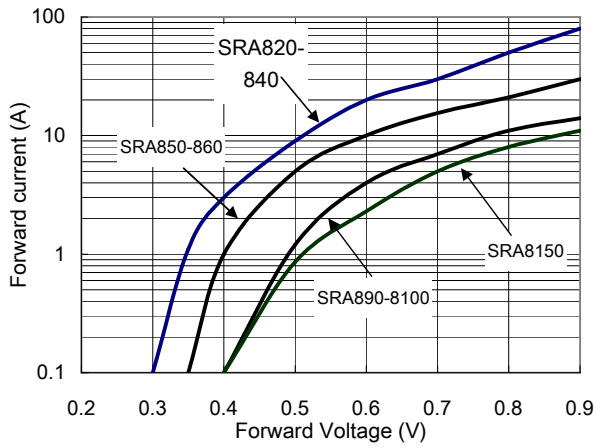


FIG 4 Typical reverse leakage character

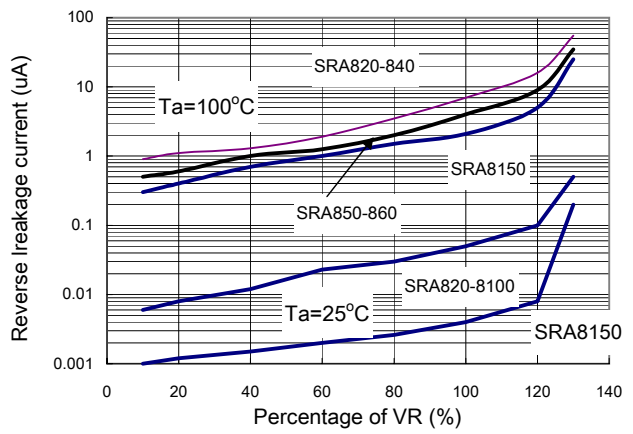


FIG 5 Typical Junction Capacitance

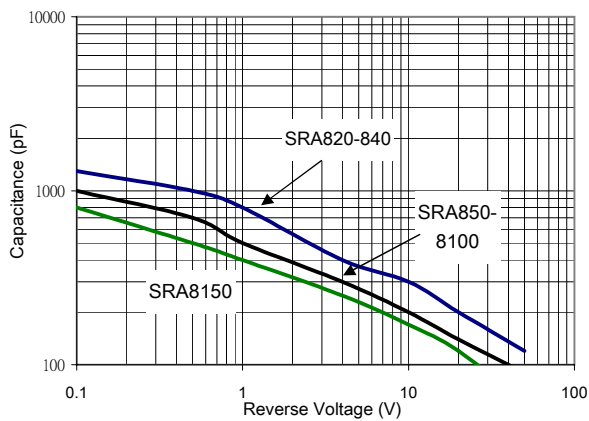


FIG 6 Typical transient Thermal Resistance

