

SRAF520 - SRAF5150

5.0AMPS. Isolated Schottky Barrier Rectifiers

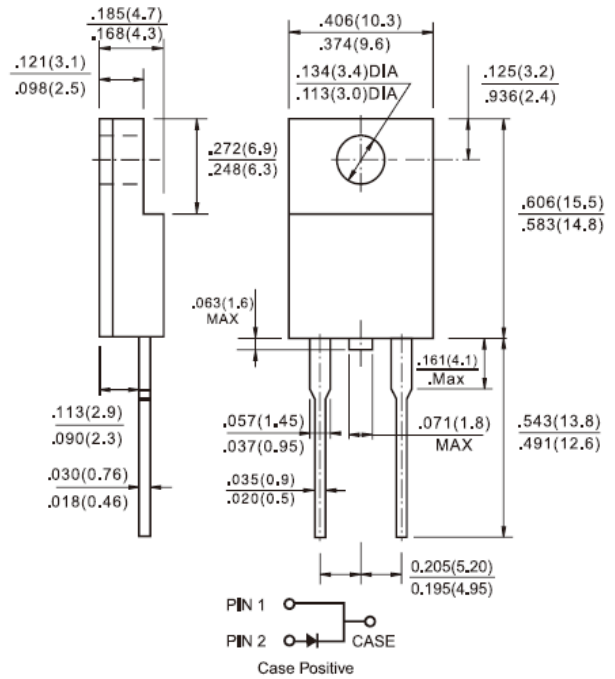
ITO-220AC

Features

- ✧ UL Recognized Flie # E-326243
- ✧ Isolated Plastic package.
- ✧ Low power loss, High efficiency.
- ✧ High current capability, Low VF.
- ✧ High reliability
- ✧ High surge current capability.
- ✧ Epitaxial construction.
- ✧ Guard-ring for transient protection.
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Cases: ITO-220AC 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: 1.72 grams



Dimensions in inches and (millimeters)

Marking Diagram



- SRAF5XX = 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	SRAF 520	SRAF 530	SRAF 540	SRAF 550	SRAF 560	SRAF 590	SRAF 5100	SRAF 5150	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	$I_{F(AV)}$	5								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	120								A	
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A	V_F	0.55		0.70		0.85		0.95		V	
Maximum D.C. Reverse Current at Rated DC	I_R	0.5				0.2				mA	
Blocking Voltage @ $T_A=125^\circ\text{C}$		15		10		-				mA	
Typical Junction Capacitance (Note 2)		460				112				pF	
Typical Thermal Resistance	$R_{\theta JC}$	5						10		$^\circ\text{C/W}$	
Operating Junction Temperature Range	T_J	- 65 to + 150									$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150									$^\circ\text{C}$

Note1: Pulse Test: 300us Pulse Width, 1% Duty cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SRAF520 THRU SRAF5150)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

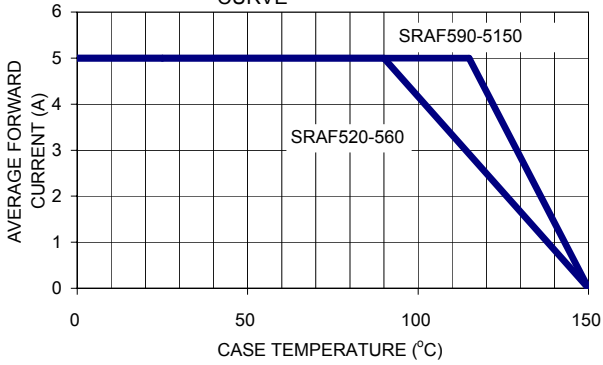


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

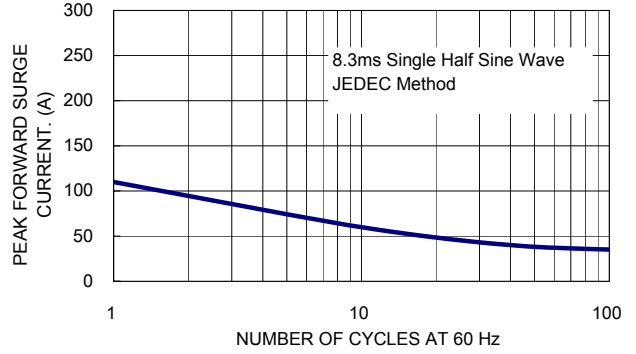


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

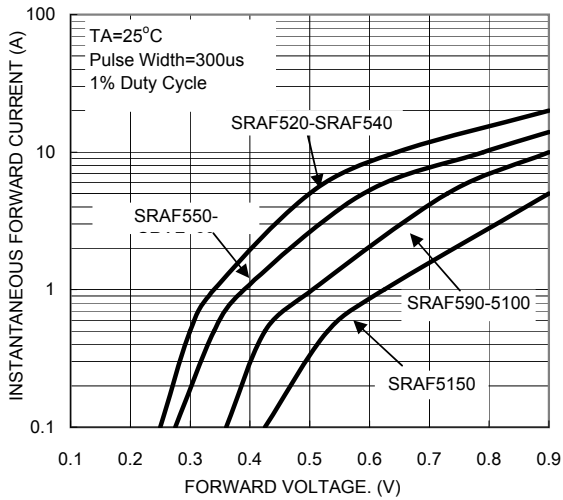


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

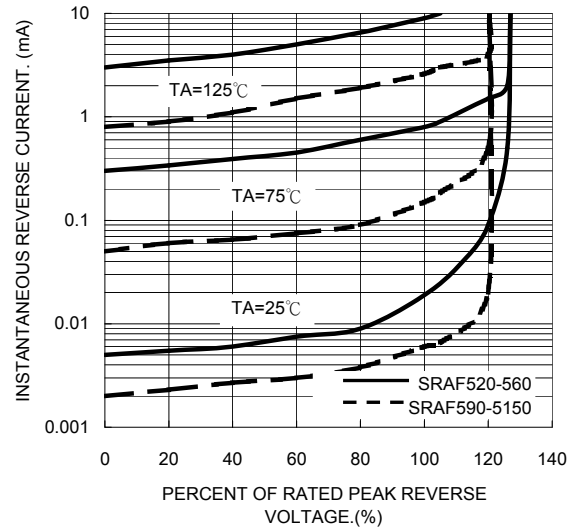


FIG. 5- TYPICAL JUNCTION CAPACITANCE

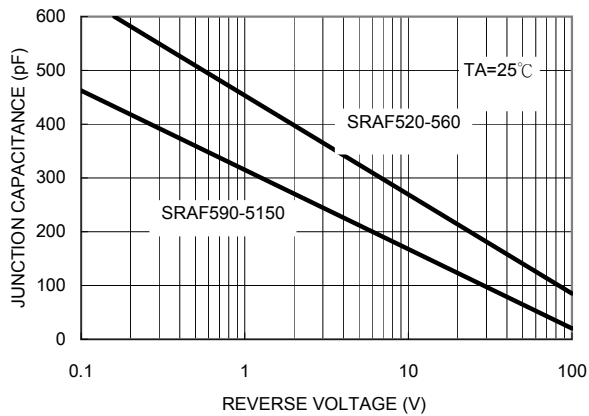


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

