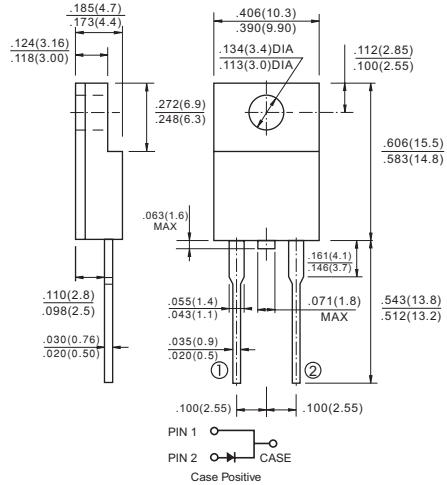


# SRAF1620 - SRAF16150

Isolated 16.0 AMPS. Schottky Barrier Rectifiers  
ITO-220AC



## Features

- ✧ 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

## 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"(.635mm) from case.
- ✧ Weight: 2.24 grams
- ✧ Mounting torque: 5 in – 1lb. max.

Dimensions in inches and (millimeters)

## 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 1620	SRAF 1630	SRAF 1640	SRAF 1650	SRAF 1660	SRAF 1690	SRAF 16100	SRAF 16150	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	$I_{(AV)}$	16								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	275								A
Maximum Instantaneous Forward Voltage @16.0A	$V_F$	0.55		0.70		0.92		1.02		V
Maximum D.C. Reverse Current @ $T_c=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_c=100^\circ\text{C}$	$I_R$	0.5				0.1				mA
		15		10		5.0			mA	
Typical Junction Capacitance (Note 2)	$C_j$	850		580		480			pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	4.0								°C/W
Operating Junction Temperature Range	$T_J$	-65 to +125			-65 to +150					°C
Storage Temperature Range	$T_{STG}$	-65 to +150								°C

- Notes: 1. Mounted on Heatsink Size of 2" x 3" x 0.25" Al-Plate.  
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SRAF1620 THRU SRAF16150)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

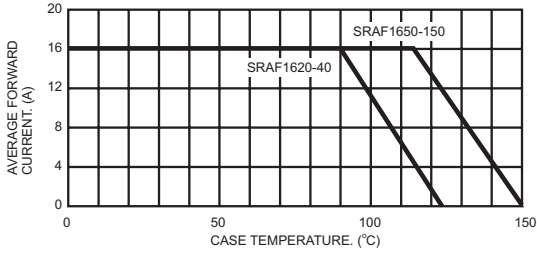


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

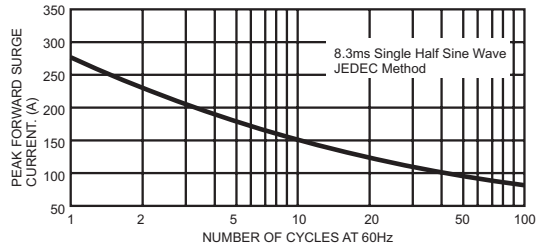


FIG.3- TYPICAL FORWARD CHARACTERISTICS

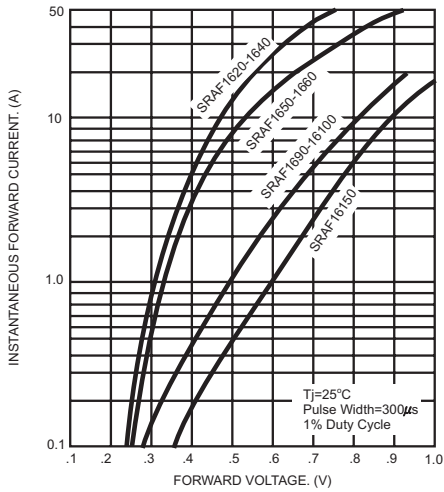


FIG.4- TYPICAL REVERSE CHARACTERISTICS

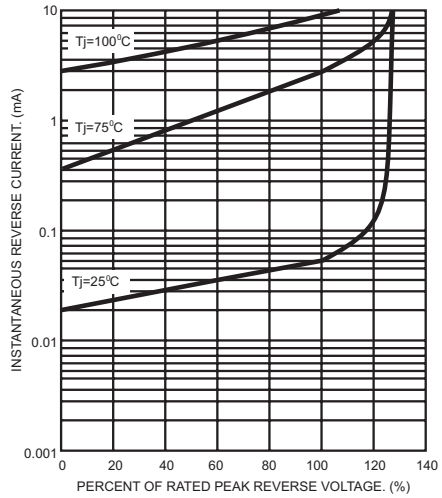


FIG.5- TYPICAL JUNCTION CAPACITANCE

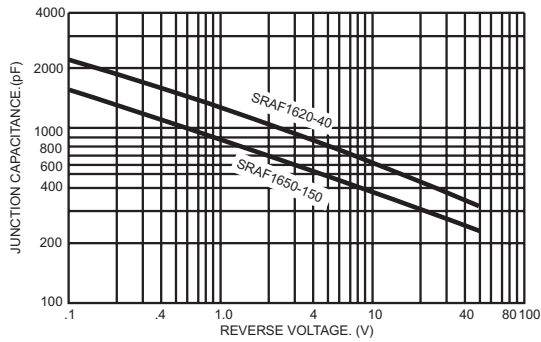


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

