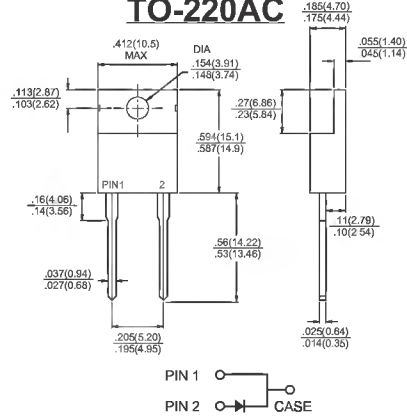




SRA1620 - SRA16100

16.0 AMPS. Schottky Barrier Rectifiers

TO-220AC



Dimensions in inches and (millimeters)
Marking Diagram

Features

- ✦ 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: TO-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: 2.24 grams



SRA16XX = 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	SRA 1620	SRA 1630	SRA 1640	SRA 1650	SRA 1660	SRA 1690	SRA 16100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	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}	200							A
Maximum Instantaneous Forward Voltage @16.0A	V_F	0.55		0.70		0.92		V	
Maximum D.C. Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	I_R	0.5					0.1		mA
		15		10		5.0			
Typical Junction Capacitance (Note 2)	C_j	700		550		480		pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	5.0							$^\circ C/W$
Operating Junction Temperature Range	T_J	-65 to +125			-65 to +150				$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ C$

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 (SRA1620 THRU SRA16100)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

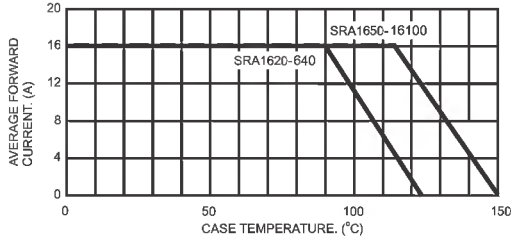


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

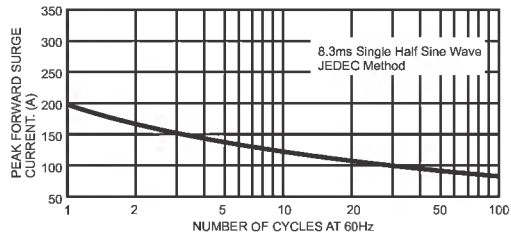


FIG.3- TYPICAL FORWARD CHARACTERISTICS

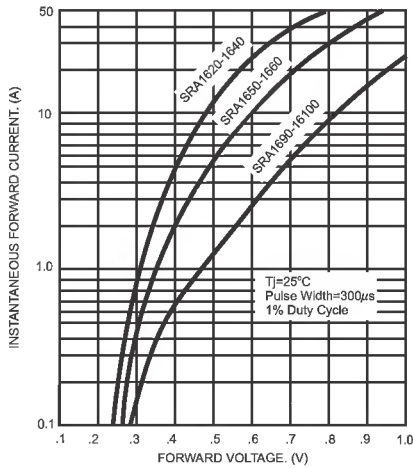


FIG.4- TYPICAL REVERSE CHARACTERISTICS

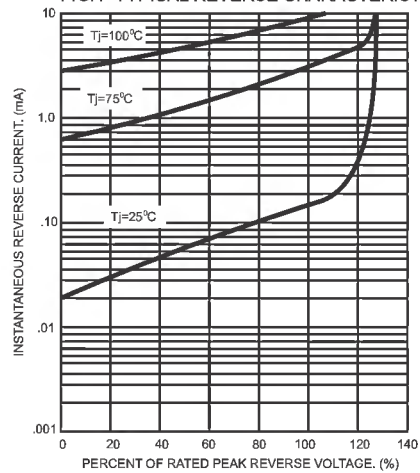


FIG.5- TYPICAL JUNCTION CAPACITANCE

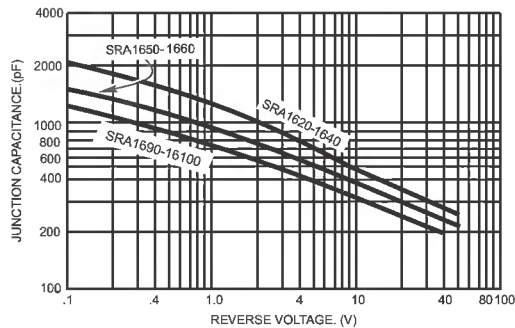


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

