

## Full Plastic Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptators, DC/DC converters, free-wheeling and polarity protection diodes.

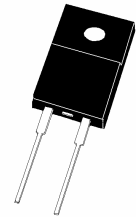
### Features

- \* Low Forward Voltage.
- \* Low Switching noise.
- \* High Current Capacity
- \* Guarantee Reverse Avalanche.
- \* Guard-Ring for Stress Protection.
- \* Low Power Loss & High efficiency.
- \* 150°C Operating Junction Temperature
- \* Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- \* ESD: 4KV(Min.) Human-Body Model
- \* In compliance with EU RoHs 2002/95/EC directives

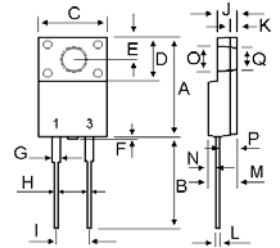


### SCHOTTKY BARRIER RECTIFIERS

**10 AMPERES  
200 VOLTS**



**ITO-220AC**



DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F		1.00
G	1.15	1.25
H	0.55	0.65
I	4.80	5.20
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
O	3.35	3.45
P	2.65	2.75
Q	3.15	3.25

## MAXIMUM RATINGS

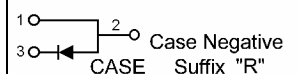
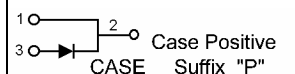
Characteristic	Symbol	SRAF10200	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	V
Average Rectifier Forward Current Total Device (Rated $V_R$ ),	$I_{F(AV)}$	10	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	$I_{FSM}$	150	A
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +150	°C

## THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta j-c}$	4.8	°C/w
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## ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SRAF10200	Unit
Maximum Instantaneous Forward Voltage ( $I_F = 10$ Amp $T_C = 25^\circ\text{C}$ ) ( $I_F = 10$ Amp $T_C = 125^\circ\text{C}$ )	$V_F$	0.95 0.85	V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C = 25^\circ\text{C}$ ) ( Rated DC Voltage, $T_C = 125^\circ\text{C}$ )	$I_R$	0.1 15	mA



To evaluation the conduction losses use the following equation:

$$P = 0.65 \times I_{F(AV)} + 0.015 \times I_{F(RMS)}^2$$

# SRAF10200

FIG-1 FORWARD CURRENT DERATING CURVE

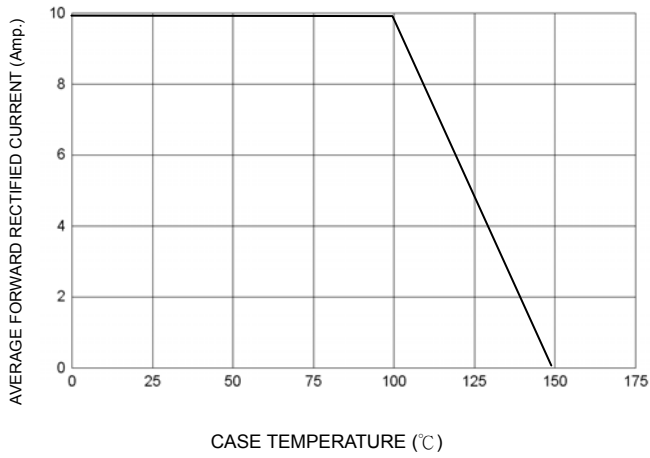


FIG-2 TYPICAL FORWARD CHARACTERISTICS

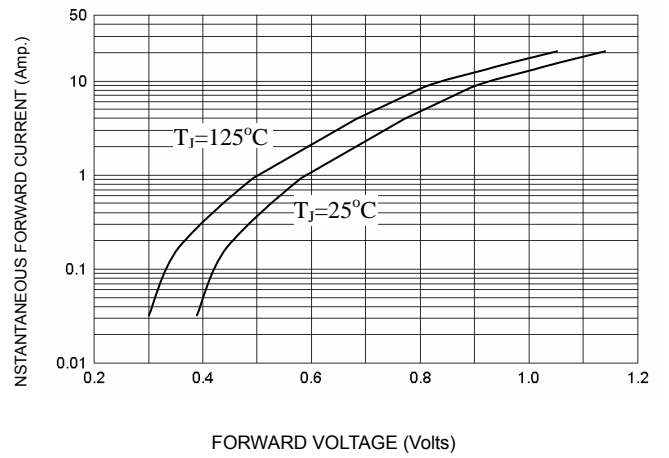


FIG-3 TYPICAL REVERSE CHARACTERISTICS

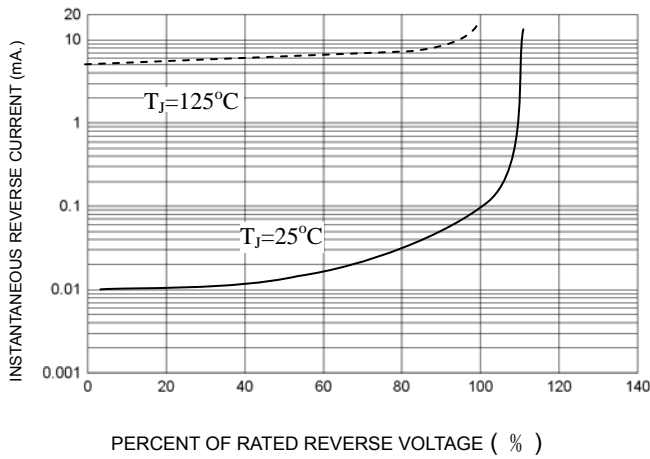


FIG-4 TYPICAL JUNCTION CAPACITANCE

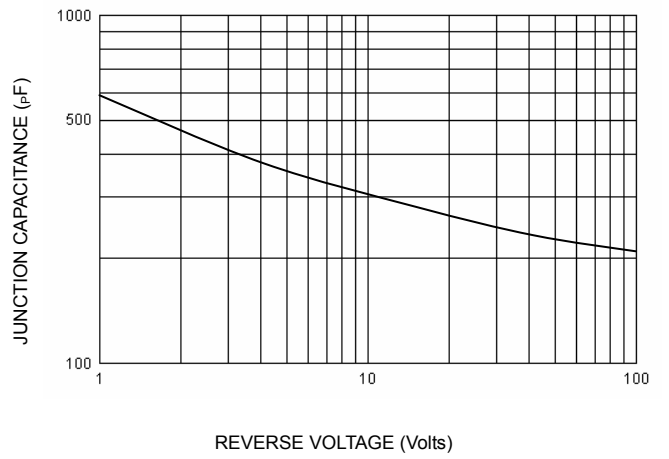


FIG-5 PEAK FORWARD SURGE CURRENT

