

### Switchmode Full Plastic Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as 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 Operating Junction Temperature
- \* Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-0
- \* ESD: 8KV(Min.) Human-Body Model
- \* In compliance with EU RoHs 2002/95/EC directives

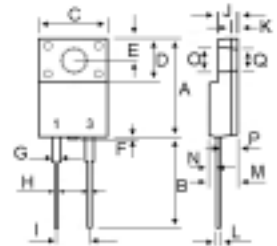


#### SCHOTTKY BARRIER RECTIFIERS

**5 AMPERES  
30-60 VOLTS**



ITO-220AC



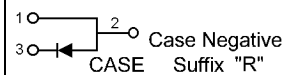
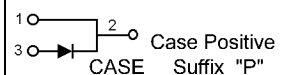
#### MAXIMUM RATINGS

Characteristic	Symbol	SRAF05						Unit
		30	35	40	45	50	60	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	35	40	45	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	25	28	32	35	42	V
Average Rectifier Forward Current	$I_{F(AV)}$	5.0						A
Peak Repetitive Forward Current (Rate $V_R$ , Square Wave, 20kHz)	$I_{FM}$	5.0						A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	$I_{FSM}$	125						A
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +150						

#### ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SRAF05						Unit
		30	35	40	45	50	60	
Maximum Instantaneous Forward Voltage ( I <sub>F</sub> =5 Amp T <sub>C</sub> = 25 ) ( I <sub>F</sub> =5 Amp T <sub>C</sub> = 100 )	V <sub>F</sub>	0.55 0.47				0.70 0.60		V
Typical Thermal Resistance junction to case	R <sub>θ j-c</sub>	4.2						/w
Maximum Instantaneous Reverse Current ( Rated DC Voltage, T <sub>C</sub> = 25 ) ( Rated DC Voltage, T <sub>C</sub> = 125 )	I <sub>R</sub>	0.5 20						mA

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



# SRAF0530 Thru SRAF0560

FIG-1 FORWARD CURRENT DERATING CURVE

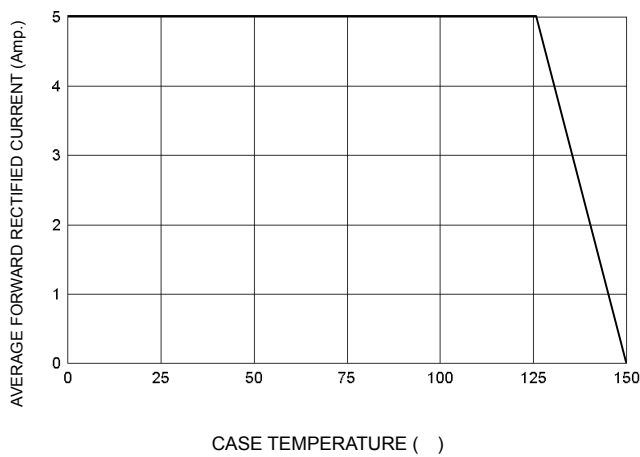


FIG-2 TYPICAL FORWARD CHARACTERISTICS

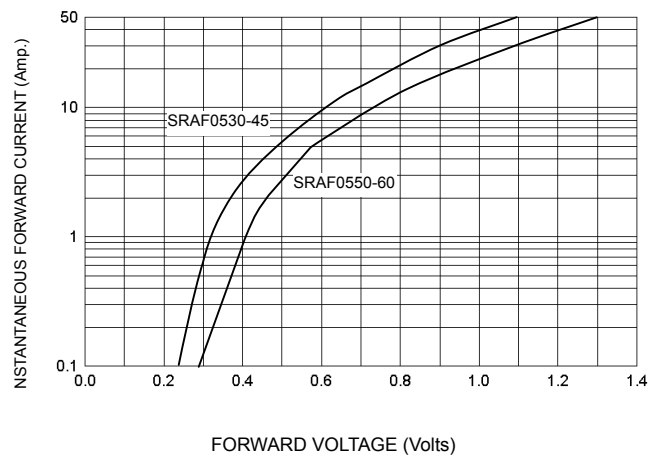


FIG-3 TYPICAL REVERSE CHARACTERISTICS

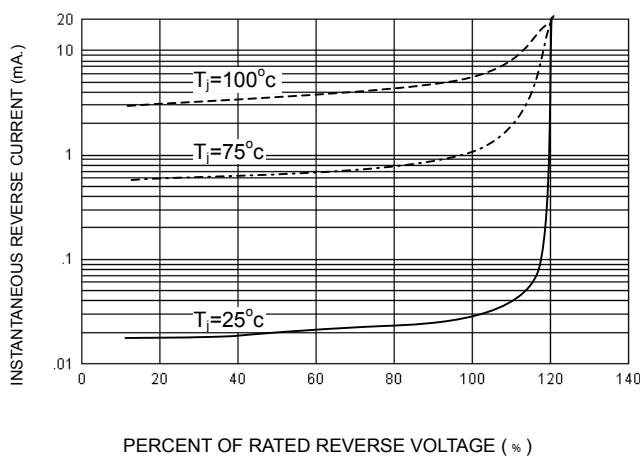


FIG-4 TYPICAL JUNCTION CAPACITANCE

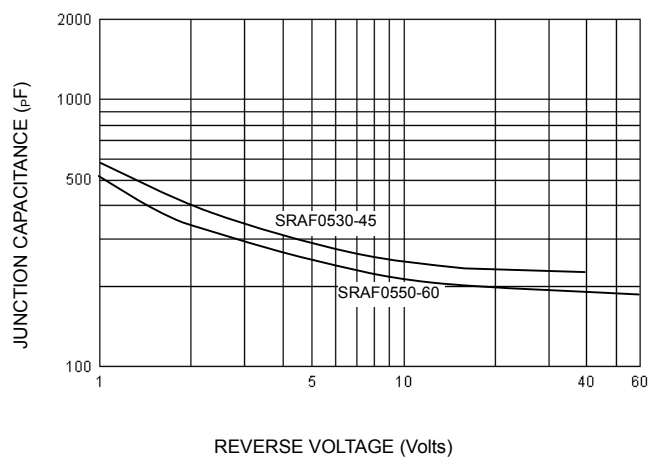
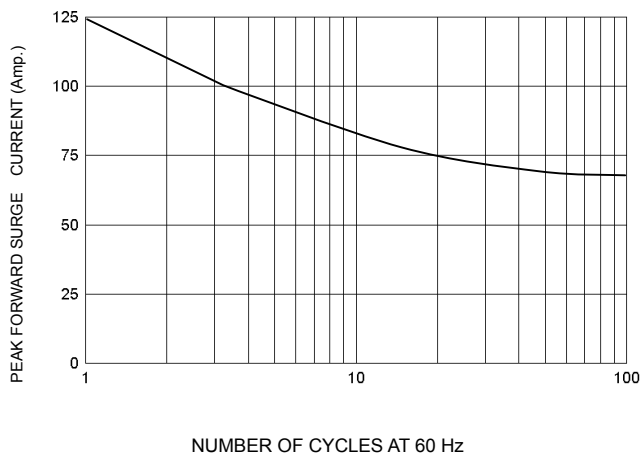


FIG-5 PEAK FORWARD SURGE CURRENT



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