

# 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.
- \*Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- \*Pb free
- \*In compliance with EU RoHs directives





# **MAXIMUM RATINGS**

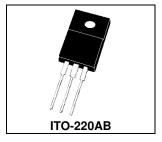
Characteristic	Symbol	SRF2060C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectifier Forward Current (Per diode) Total Device (Rated $V_R$ ), $T_C$ =125 $^{\circ}$ C	I <sub>F(AV)</sub>	10 20	Α
Peak Repetitive Forward Current (Rate V <sub>R</sub> , Square Wave, 20kHz)	I <sub>FM</sub>	20	Α
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I <sub>FSM</sub>	200	Α
Junction Temperature	TJ	150	$^{\circ}\!\mathbb{C}$
Storage Temperature Range	T <sub>stg</sub>	-65 to +150	$^{\circ}\!\mathbb{C}$

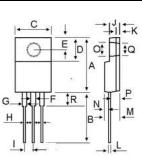
## **ELECTRICAL CHARACTERISTICS**

ELECTRICAL CHARACTERISTICS							
Characteristic	Symbol	Min.	Тур.	Max.	Unit		
Maximum Instantaneous Forward Voltage ( $I_F = 10 \text{ Amp } T_C = 25^{\circ}C$ ) ( $I_F = 10 \text{ Amp } T_C = 125^{\circ}C$ )	V <sub>F</sub>		0.65 0.57	0.70	V		
Typical Thermal Resistance junction to case	$R_{ heta jc}$		3.8		°C/w		
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C = 25^{\circ}C$ ) ( Rated DC Voltage, $T_C = 125^{\circ}C$ )	I <sub>R</sub>		0.02 20	0.5 	mA		

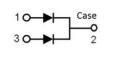
#### SCHOTTKY BARRIER RECTIFIERS

20 AMPERES 60 VOLTS



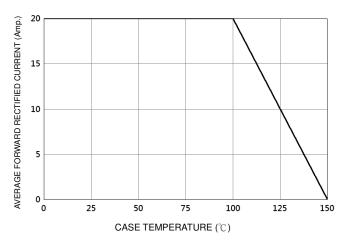


DIM	MILLIMETERS		
DIIVI	MIN	MAX	
Α	14.80	16.10	
В	12.65	14.40	
С	9.70	10.36	
D	4.60	6.80	
Ε	2.50	3.50	
F	0.90	1.45	
G	0.90	1.45	
Н	0.50	0.90	
- 1	2.40	2.70	
J	2.34	3.30	
K	0.55	1.30	
L	0.36	0.80	
M	4.20	4.90	
Ν	1.10	1.80	
0	2.90	3.50	
Р	2.30	3.15	
Q	2.90	3.50	
R	2.80	4.85	

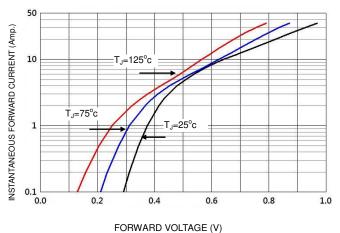




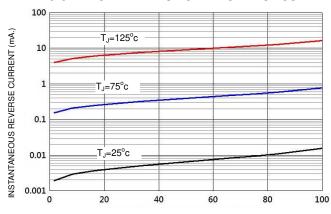




#### FIG-2 TYPICAL FORWARD CHARACTERISTICS

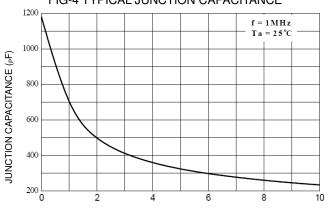


#### FIG-3 TYPICAL REVERSE CHARACTERISTICS



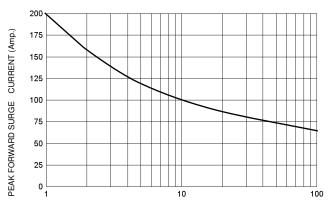
PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

# FIG-4 TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE (V)

#### FIG-5 PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz



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