

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-O

* ESD: 8KV(Min.) Human-Body Model

* In compliance with EU RoHs 2002/95/EC directives

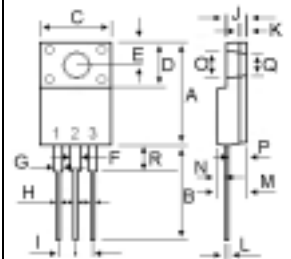


SCHOTTKY BARRIER RECTIFIERS

**20 AMPERES
30-60 VOLTS**



ITO-220AB



MAXIMUM RATINGS

Characteristic	Symbol	SRF20						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 (Per diode) Total Device (Rated V_R), $T_C=125$	$I_{F(AV)}$	10 20						A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	20						A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	200						A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150						

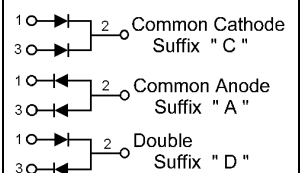
DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
O	3.35	3.45
P	2.65	2.75
Q	3.15	3.25
R	3.60	3.80

THERMAL RESISTANCES

Typical Thermal Resistance junction to case Per diode	$R_{\theta jc}$	3.8	/w
Total		3.4	
Coupling	$R_{\theta c}$	3.0	

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SRF20						Unit
		30	35	40	45	50	60	
Maximum Instantaneous Forward Voltage ($I_F=10$ Amp $T_C=25$) ($I_F=10$ Amp $T_C=100$)	V_F	0.55 0.48			0.70 0.60			V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25$) (Rated DC Voltage, $T_C=100$)	I_R	0.5 20						mA



SRF2030 Thru SRF2060

FIG-1 FORWARD CURRENT DERATING CURVE

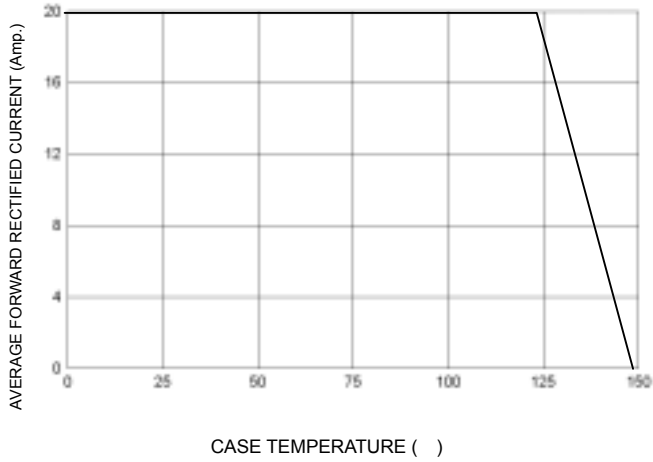


FIG-2 TYPICAL FORWARD CHARACTERISTICS

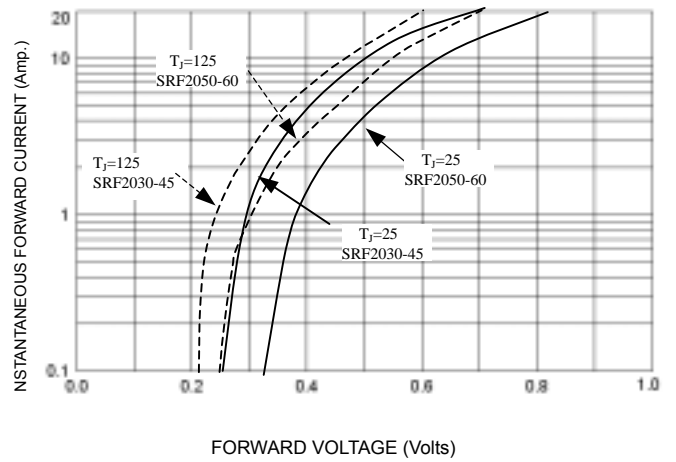


FIG-3 TYPICAL REVERSE CHARACTERISTICS

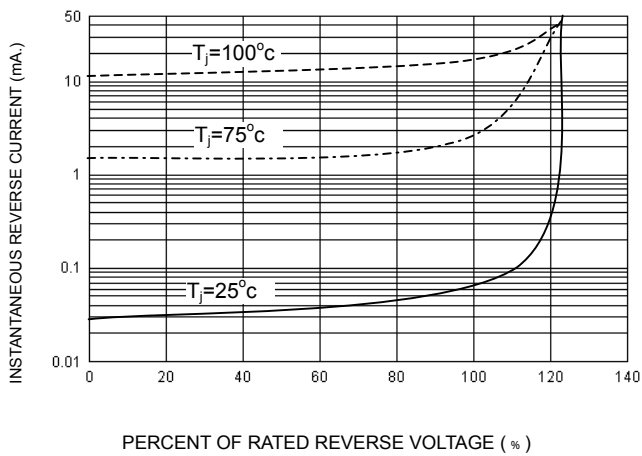


FIG-4 TYPICAL JUNCTION CAPACITANCE

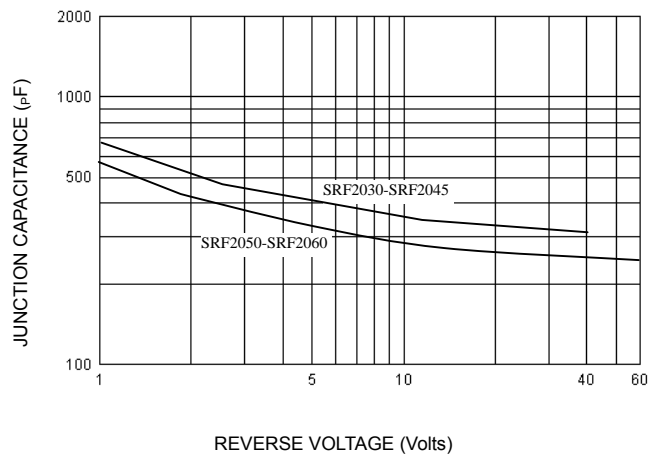


FIG-5 PEAK FORWARD SURGE CURRENT

