

### Switchmode Full Plastic Dual Schottky Barrier Power 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

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

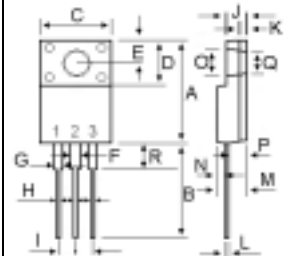


#### SCHOTTKY BARRIER RECTIFIERS

**10 AMPERES  
150 VOLTS**



ITO-220AB



#### MAXIMUM RATINGS

Characteristic	Symbol	SRF10150	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	150	V
RMS Reverse Voltage	$V_{R(RMS)}$	105	V
Average Rectifier Forward Current ( Per diode ) Total Device (Rated $V_R$ , $T_C=100$ )	$I_{F(AV)}$	5 10	A
Peak Repetitive Forward Current (Rate $V_R$ , Square Wave, 20kHz)	$I_{FM}$	10	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	

#### THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta j-c}$	4.2	/w
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#### ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SRF10150	Unit
Maximum Instantaneous Forward Voltage ( $I_F=5.0$ Amp $T_C=25$ ) ( $I_F=5.0$ Amp $T_C=125$ )	$V_F$	0.95 0.85	V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C=25$ ) ( Rated DC Voltage, $T_C=125$ )	$I_R$	0.2 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	1.55	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

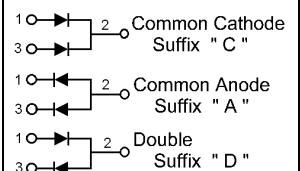


FIG-1 FORWARD CURRENT DERATING CURVE

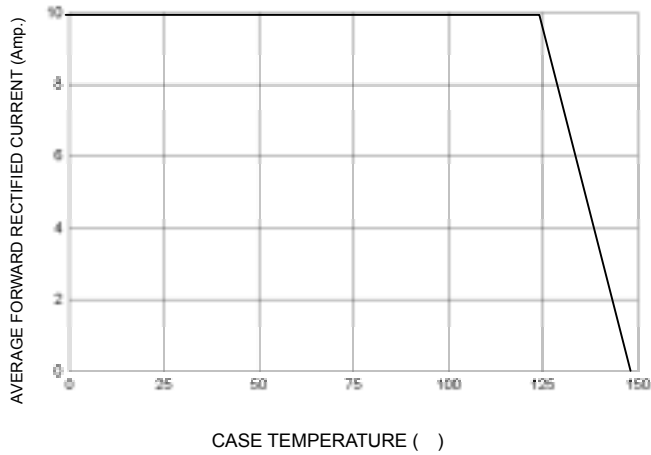


FIG-2 TYPICAL FORWARD CHARACTERISTICS

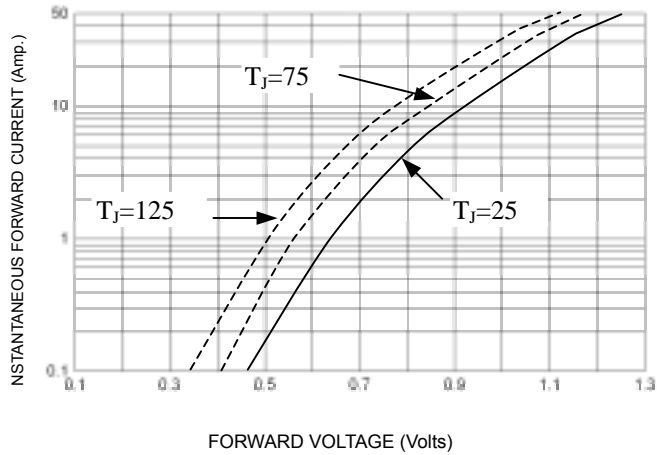


FIG-3 TYPICAL REVERSE CHARACTERISTICS

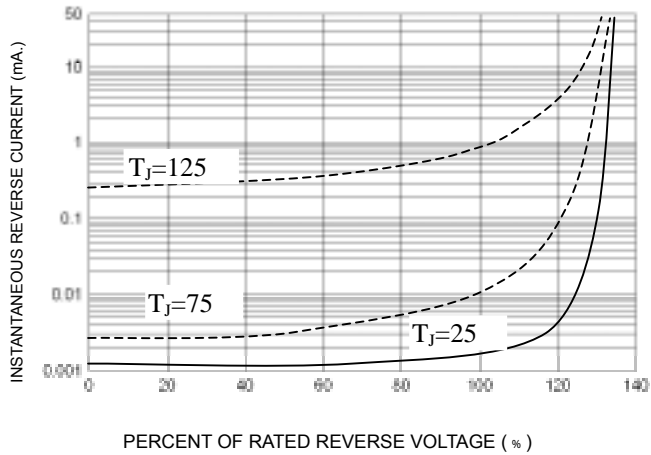


FIG-4 TYPICAL JUNCTION CAPACITANCE

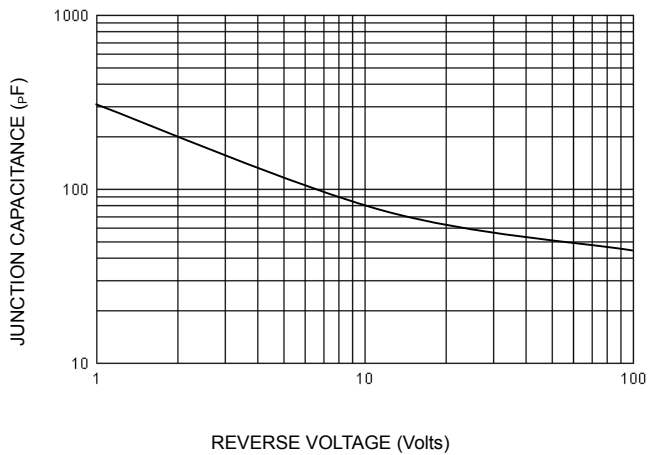


FIG-5 PEAK FORWARD SURGE CURRENT

