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.

SCHOTTKY BARRIER RECTIFIERS

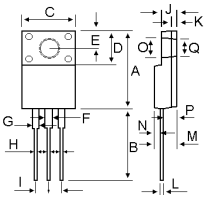
10 AMPERES
150 VOLTS

ITO-220

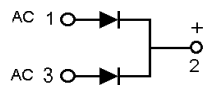
Features
* Low Forward Voltage.
* Low Switching noise.
* High Current Capacity
* Guarantee Reverse Avalanche.
* Guard-Ring for Stress Protection.
* Low Power Loss & High efficiency.
* 150℃ Operating Junction Temperature
* Low Stored Charge Majority Carrier Conduction.
* Plastic Material used Carries Underwriters Laboratory

Mecnanical Data
＊Case :JEDEC ITO-220AB molded plastic body
＊Termals:Plated lead,solderable per MIL-STD-750, Method 2026
＊Polarity:As marked
＊Mounting Torqure: 5 in-lbs. Max.
＊Weight:1.7 g approx.

Plating pb free is indicated by box



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
P	2.65	2.75
O	3.35	3.45
Q	3.15	3.25



Common cathode
Suffix "C"

MAXIMUM RATINGS

Characteristic	Symbol	SRF10150C	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 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 halfware, 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 Per diode Total Coupling	$R_{\theta j\text{-}c}$ $R_{\theta c}$	 4.2 3.2 3.0	℃/w

Where the diodes1 and 2 are used simultaneously:
$\triangle T_J$(diode 1)＝P(diode1)×$R_{\theta(j\text{-}c)}$(Per diode)＋P(diode2)×$R_{\theta c}$

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SRF10150C	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 10	mA

To evaluation the conduction losses use the following equation:
$P=0.68\times I_{F(AV)}+0.015\times I_{F(RMS)}^2$

SRF10150C

FIG-1 FORWARD CURRENT DERATING CURVE

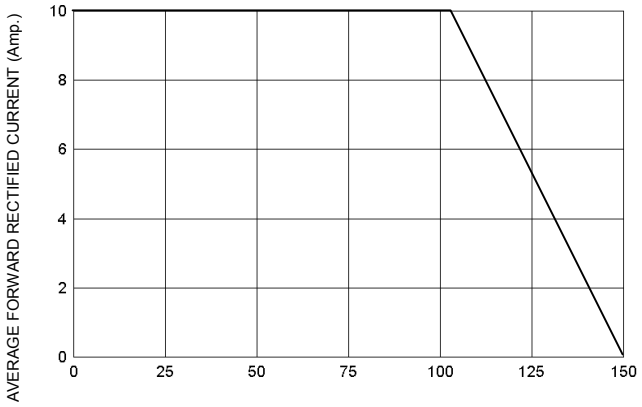


FIG-2 TYPICAL FORWARD CHARACTERISITICS

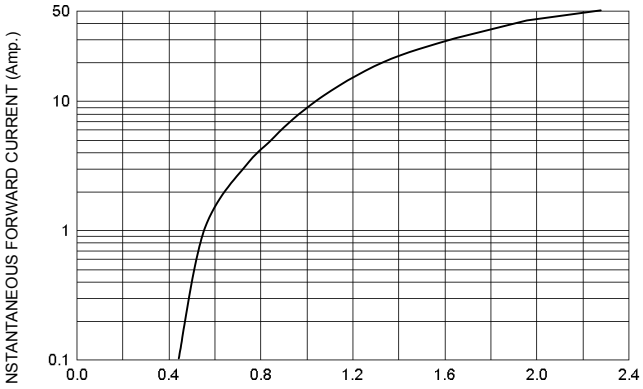


FIG-3 TYPICAL REVERSE CHARACTERISTICS

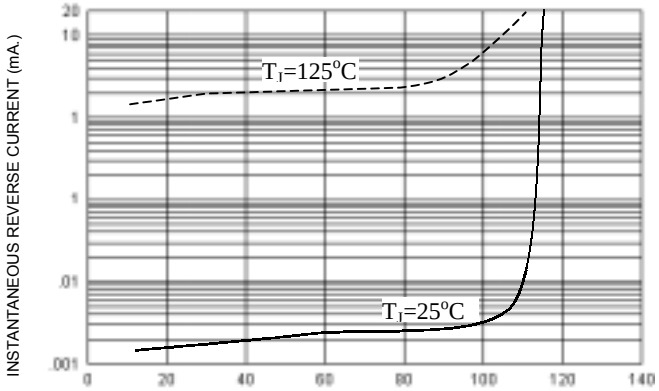


FIG-4 TYPICAL JUNCTION CAPACITANCE

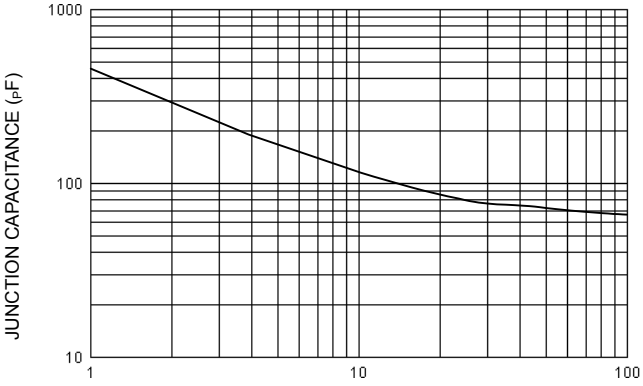


FIG-5 PEAK FORWARD SURGE CURRENT