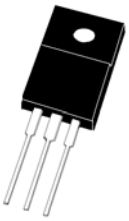
Switchmode
Full Plastic Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal.The properietary barrier technology allows for reliable operation up to 150℃ junction temperature. Typical application are in switching Mode Power Supplies such as adaptators, DC/DC convertes,free- wheeling and polarity protection diodes.

SCHOTTKY BARRIER RECTIFIERS

20 AMPERES
100 VOLTS



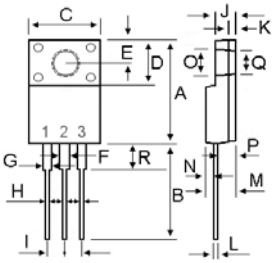
ITO-220AB

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



DIM	MILLIMETERS	
	MIN	MAX
A	14.90	15.15
B	13.35	13.55
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

MAXIMUM RATINGS

Characteristic	Symbol	SRF20100C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	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 halfware, single phase, 60Hz)	I_{FSM}	200	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150	℃

THERMAL RESISTANCES

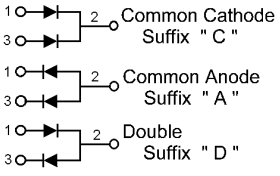
Typical Thermal Resistance junction to case Per diode Total Coupling	 $R_{\theta j\text{-}c}$ $R_{\theta c}$	 4.0 3.2 2.6	℃/w

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	SRF20100C	Unit
Maximum Instantaneous Forward Voltage (perdiode) (I_F =10 Amp T_C = 25℃) (I_F =10 Amp T_C = 125℃)	V_F	 0.85 0.78	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	 0.1 10	mA

To evaluation the conduction losses use the following equation:
$P=0.58\times I_{F(AV)}+0.01\times I_{F(RMS)}^2$



SRF20100C

FIG-1 FORWARD CURRENT DERATING CURVE

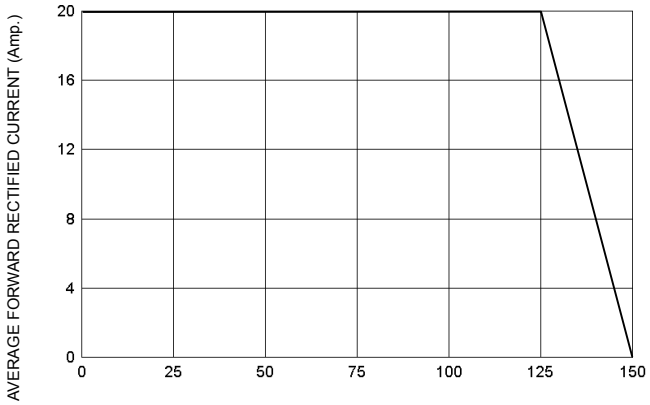


FIG-2 TYPICAL FORWARD CHARACTERISITICS

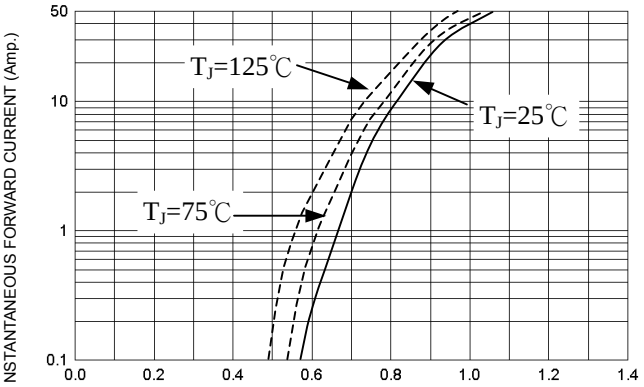


FIG-3 TYPICAL REVERSE CHARACTERISTICS

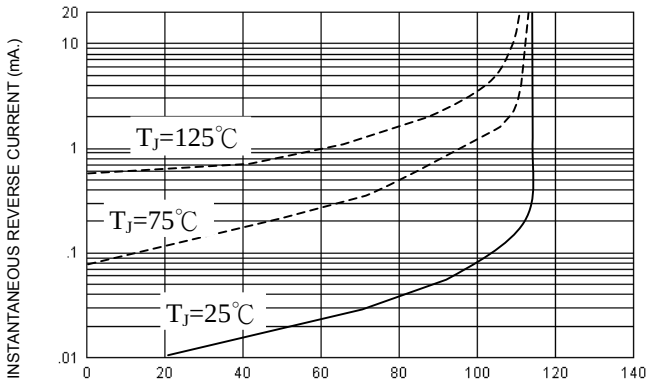


FIG-4 TYPICAL JUNCTION CAPACITANCE

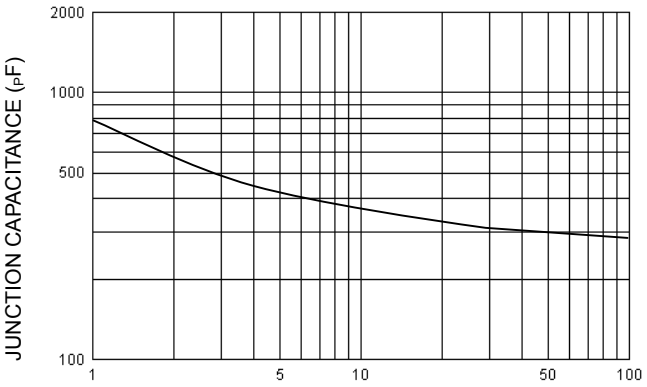
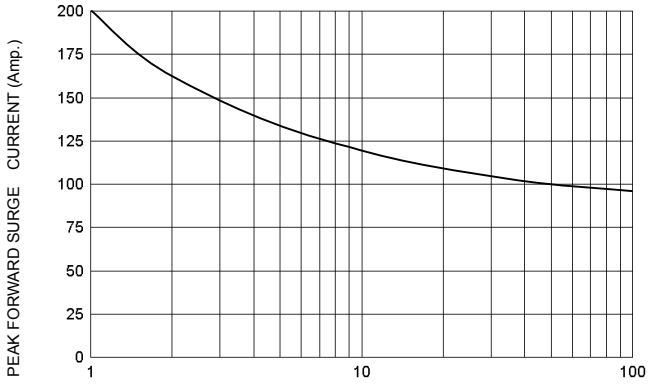


FIG-5 PEAK FORWARD SURGE CURRENT



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