



# SRF1020 THRU SRF10100

## Isolation 10.0 AMPS. Schottky Barrier Rectifiers



Voltage Range  
20 to 100 Volts  
Current  
10.0 Amperes

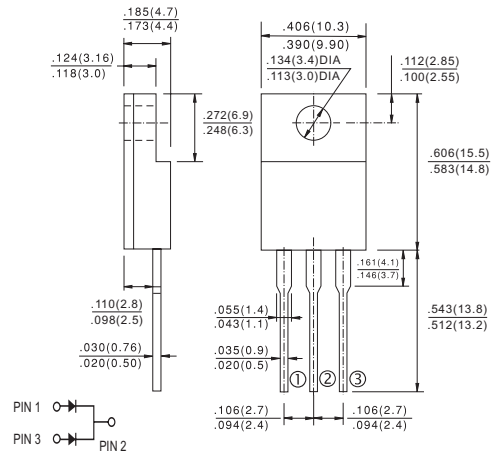
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: ITO-220AB molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds .25", (6.35mm) from case.
- ✧ Weight: 2.24 grams
- ✧ Mounting torque: 5 in – 1bs. max.

### ITO-220AB



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	SRF 1020	SRF 1030	SRF 1040	SRF 1050	SRF 1060	SRF 10100	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	70	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	100	V	
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	10.0						A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	175						A	
Maximum Instantaneous Forward Voltage @5.0A	$V_F$	0.55		0.70		0.90		V	
Maximum D.C. Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	$I_R$	0.5 50						mA mA	
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.5					4.0		°C/W
Typical Junction Capacitance (Note 2)	$C_j$	300						pF	
Operating Junction Temperature Range	$T_J$	-65 to +125			-65 to +150				°C
Storage Temperature Range	$T_{STG}$	-65 to +150						°C	

Notes: 1 Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.  
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SRF1020 THRU SRF10100)

FIG.1- FORWARD CURRENT DERATING CURVE

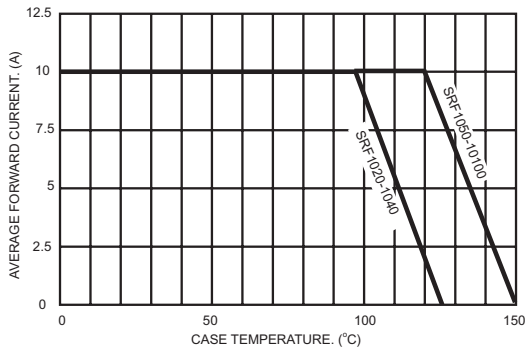


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

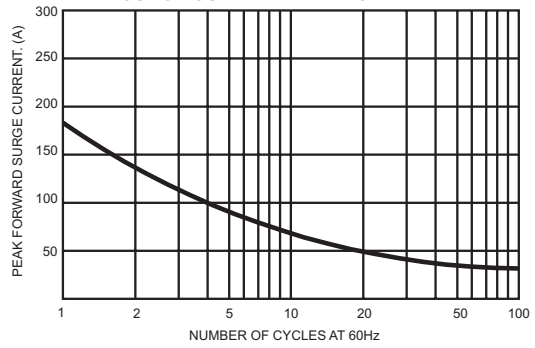


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

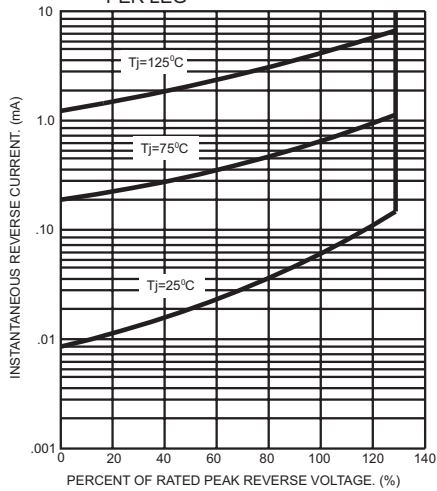


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

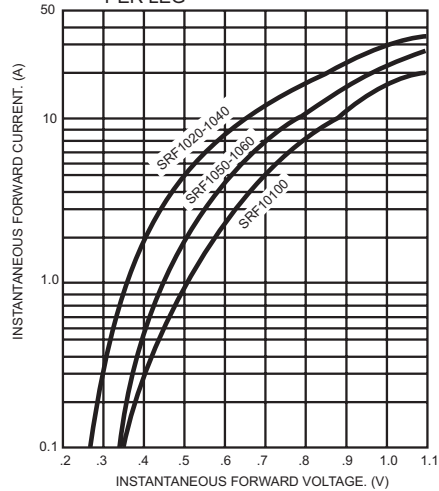


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

