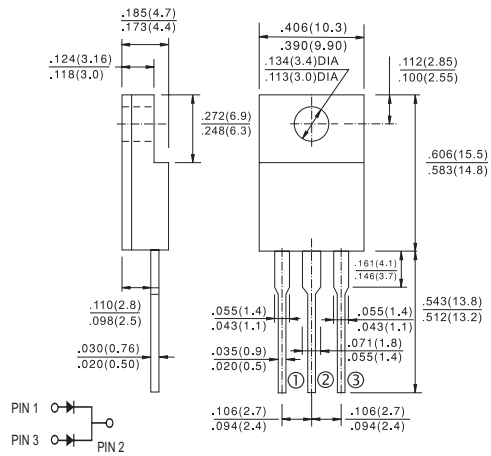
SRF1020 THRU SRF10100

Isolation 10.0 AMPS. Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
10.0 Amperes

ITO-220AB



Dimensions in inches and (millimeters)

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.

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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℃ at Rated DC Blocking Voltage @ Tc=100℃	I_R	0.5 50						mA mA
Typical Thermal Resistance (Note 1)	$R\theta_{JC}$	3.5					4.0	℃/W
Typical Junction Capacitance (Note 2)	Cj	300						pF
Operating Junction Temperature Range	T_J	-65 to +125			-65 to +150			℃
Storage Temperature Range	TSTG	-65 to +150						℃

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

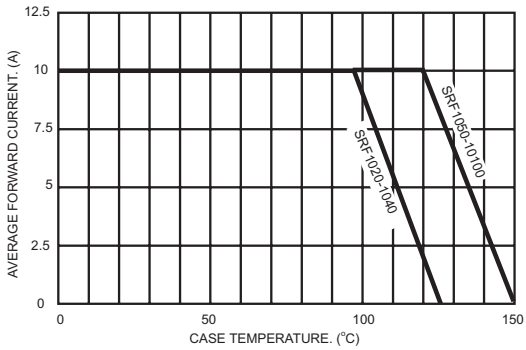


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

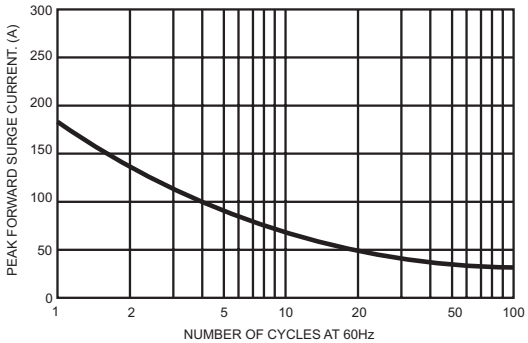


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

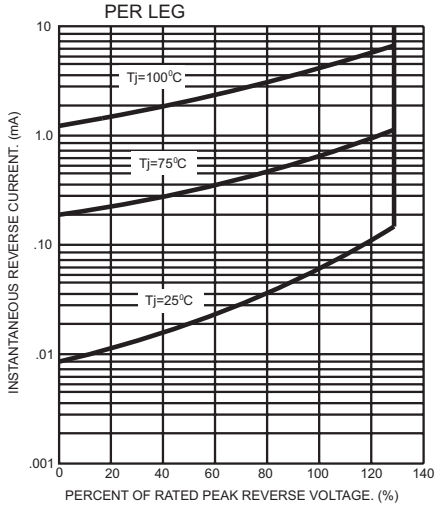


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

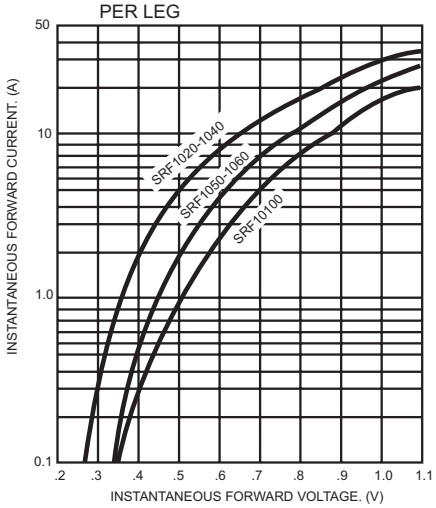


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG