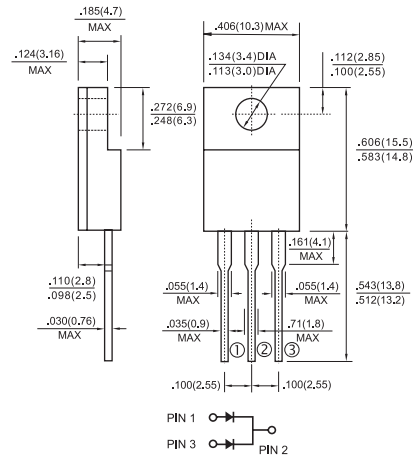
SRF1020-SRF10150

Isolated 10.0AMP. Schottky Barrier Rectifiers

ITO-220AB



Dimensions in inches and (millimeters)

Features

- ✧ For surface mounted application
- ✧ Low power loss, high efficiency
- ✧ High current capability, low VF
- ✧ High reliability
- ✧ Epitaxial construction
- ✧ Guard-ring for transient protection

Mechanical Data

- ✧ Cases: ITO-220AB molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ 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 °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 1090	SRF 10100	SRF 10150	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	100	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	70	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	100	100	150	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	10								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	120								A
Maximum Instantaneous Forward Voltage @5.0A	V_F	0.55			0.70		0.90		1.00	V
Maximum D.C. Reverse Current @ Tc=25 °C	I_R	0.5					0.1			mA
at Rated DC Blocking Voltage @ Tc=100 °C		15			10		5.0			mA
Typical Junction Capacitance (Note 2)	Cj	300								pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.5					4.0			°C/W
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" x 3" x 0.25" Al-Plate.
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES (SRF1020 THRU SRF10150)

FIG.1- FORWARD CURRENT DERATING CURVE

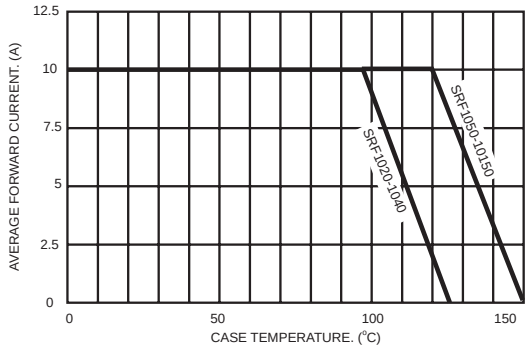

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

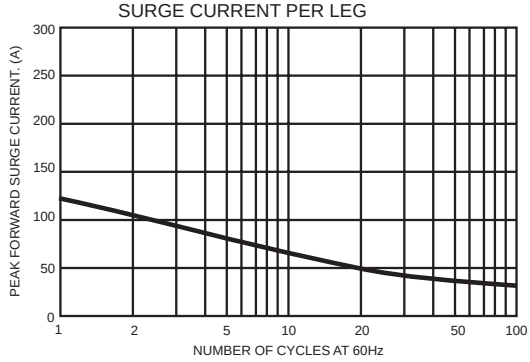

FIG.3- TYPICAL FORWARD CHARACTERISTICS PER LEG

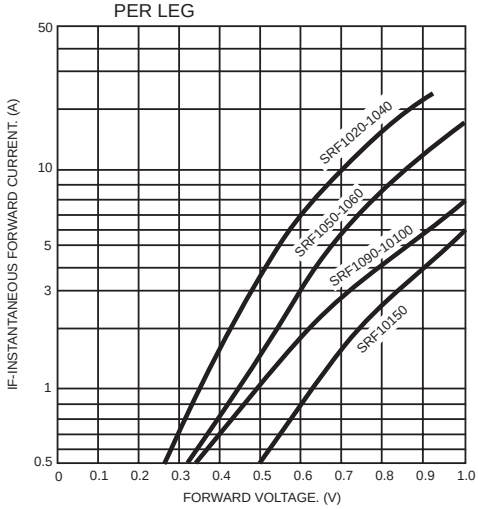

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

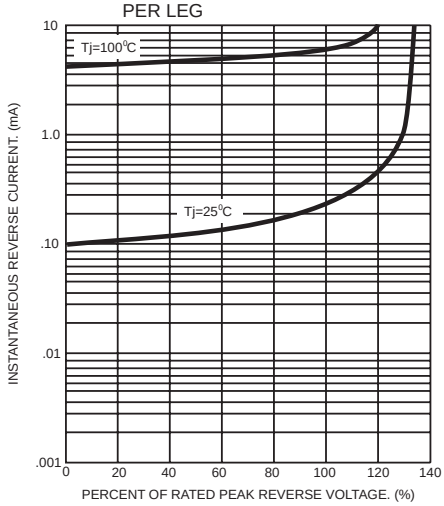

FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

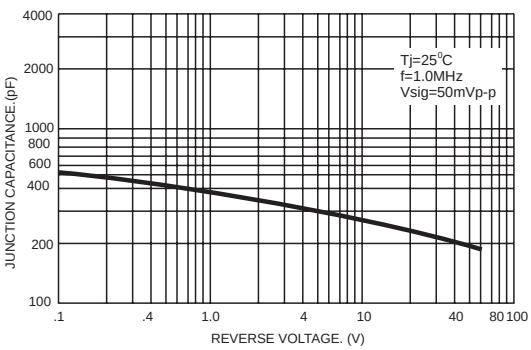

FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG