

SRF1620 - SRF16150

Isolated 16.0 AMPS. Schottky Barrier Rectifiers

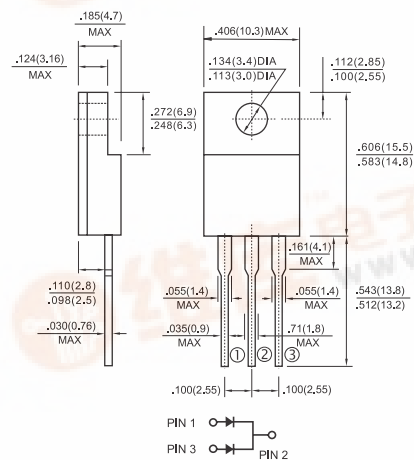
ITO-220AB

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
- ✧ Terminals: Pure tin plated, 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.



Dimensions in inches and (millimeters)

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 1620	SRF 1630	SRF 1640	SRF 1650	SRF 1660	SRF 1690	SRF 16100	SRF 16150	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	16.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200								A
Maximum Instantaneous Forward Voltage @8.0A	V_F	0.55			0.70		0.90		1.00	V
Maximum D.C. Reverse Current @ $T_c=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_c=100^{\circ}\text{C}$	I_R	0.5					0.1			mA
		15			10		5.0			mA
Typical Junction Capacitance (Note 2)	C_j	480			300		112			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5					4.0			$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-65 to +125					-65 to +150			$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150								$^{\circ}\text{C}$

Notes: 1. Thermal Resistance from Junction to Case Per Leg
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.
3. Mounted on Heatsink Size of 2" x 3" x 0.25" Al-Plate.

RATINGS AND CHARACTERISTIC CURVES (SRF1620 THRU SRF16150)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

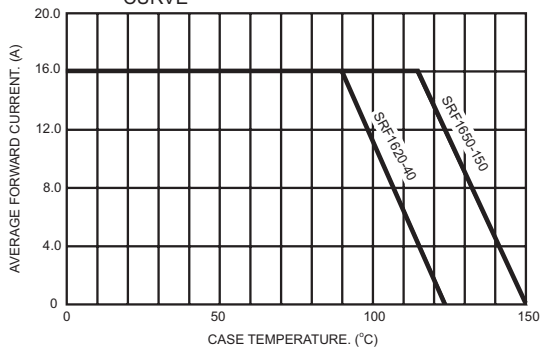


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

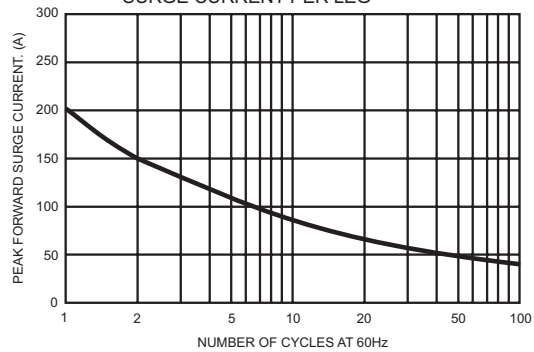


FIG.3- TYPICAL FORWARD CHARACTERISTICS PER LEG

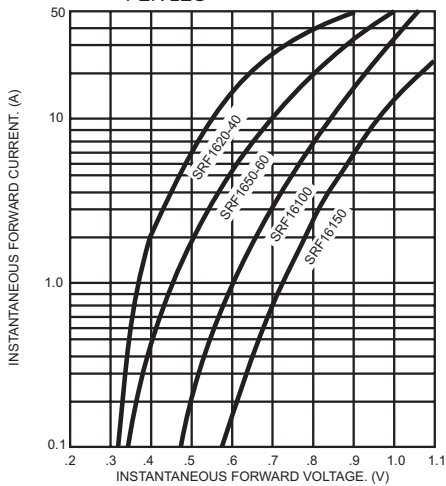


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

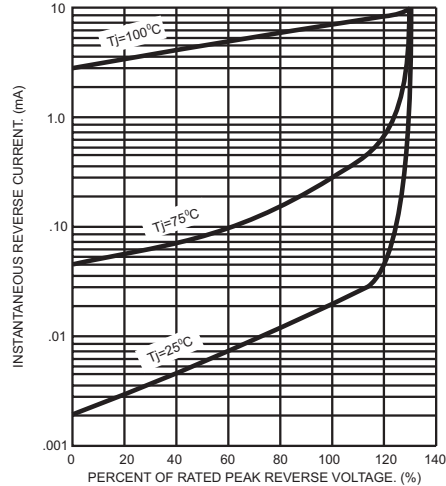


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

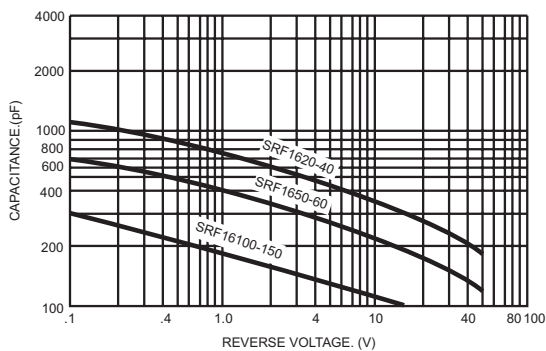


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

