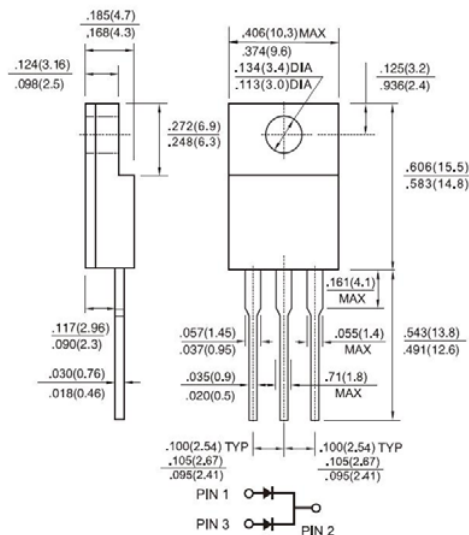




SRF1020 - SRF10150 10.0AMPS. Isolated Schottky Barrier Rectifiers ITO-220AB



Features

- ✧ UL Recognized File #E-326243
- ✧ For surface mounted application
- ✧ Low power loss, high efficiency
- ✧ High current capability, Low VF
- ✧ High reliability
- ✧ Epitaxial construction
- ✧ Guard-ring for transient protection
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: ITO-220AB molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead solderable per MIL-STD-750, Method 2026 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10s .25"(6.35mm) from case
- ✧ Weight: 1.74 grams
- ✧ Mounting torque: 5 in - 1lbs. Max.

Dimensions in inches and (millimeters)

Marking Diagram



- SRF10XX = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

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	Unit
Maximum Repetitive 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	$I_{F(AV)}$	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 (Note 1) @ 5A	V_F	0.55		0.70		0.90		1.00		V
Maximum Reverse Current @ Rated VR $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	0.5				0.1				mA
		15		10		-				
		-				5				
Typical Junction Capacitance (Note 2)	C_j	300								pF
Typical Thermal Resistance	$R_{\theta JC}$	3.5				4				$^\circ\text{C/W}$
Operating Temperature Range	T_J	- 65 to + 125				- 65 to + 150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150								$^\circ\text{C}$

Note1: Pulse Test with PW=300u sec, 1% Duty cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SRF1020 THRU SRF10150)

FIG.1 FORWARD CURRENT DERATING CURVE

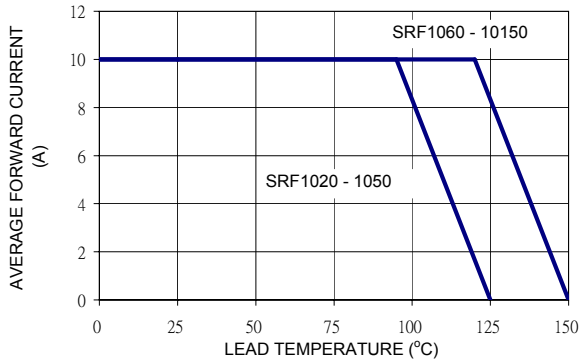


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

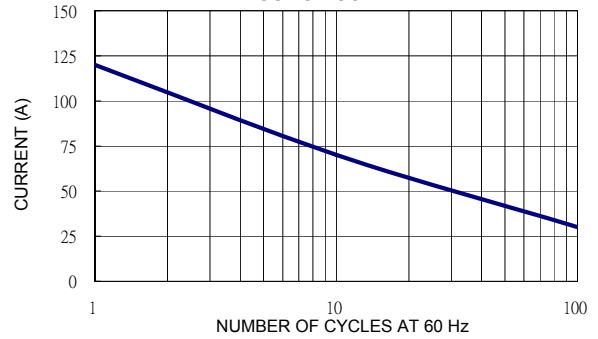


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

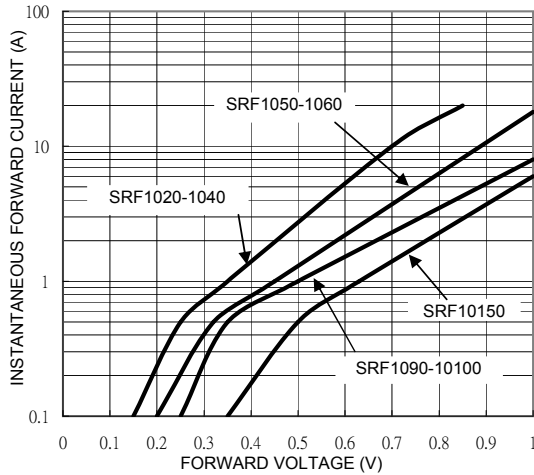


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

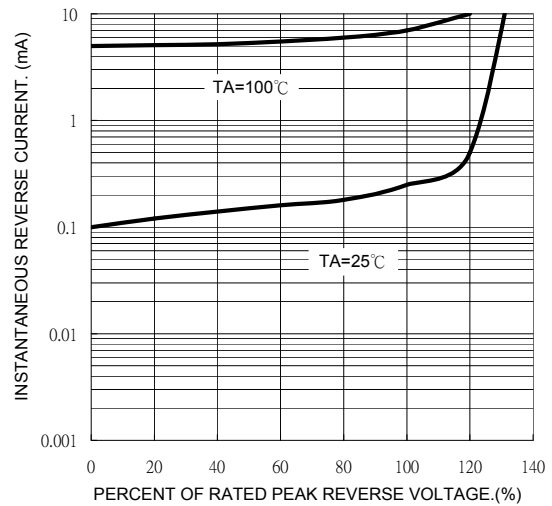


FIG. 5 TYPICAL JUNCTION CAPACITANCE

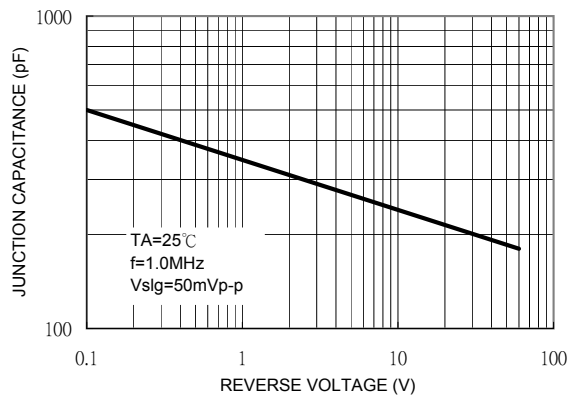


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

