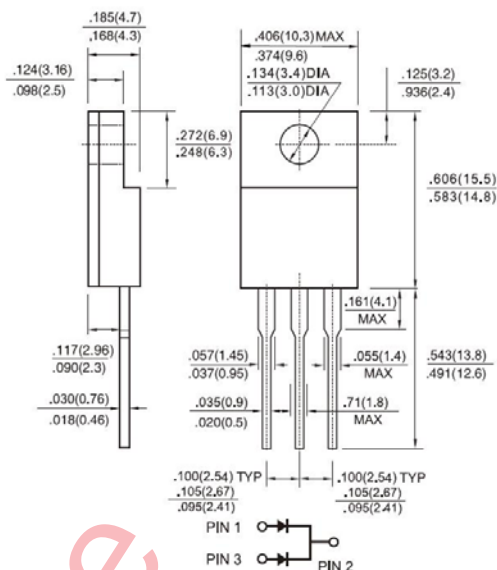




SRF2020 - SRF20150 20.0AMPS. Isolated Schottky Barrier Rectifiers ITO-220AB

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: 1.75 grams
- Mounting torque: 5 in - 1lbs. Max.

Dimensions in inches and (millimeters)



Marking Diagram

- SRF20XX = 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 2020	SRF 2030	SRF 2040	SRF 2050	SRF 2060	SRF 2090	SRF 20100	SRF 20150	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	$I_{F(AV)}$	20								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 (Note 1) @ 10A	V_F	0.55			0.70		0.92		1.02	V	
Maximum Reverse Current @ Rated VR $T_A=25^{\circ}C$ $T_A=100^{\circ}C$ $T_A=125^{\circ}C$	I_R	0.5				0.1				mA	
		15		10		-					
		-				5					
Typical Junction Capacitance (Note 2)	C_j	440			300		280				pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5								$^{\circ}C/W$	
Operating Temperature Range	T_J	- 65 to + 125				- 65 to + 150				$^{\circ}C$	
Storage Temperature Range	T_{STG}	- 65 to + 150								$^{\circ}C$	

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 (SRF2020 THRU SRF20150)

FIG.1 FORWARD CURRENT DERATING CURVE

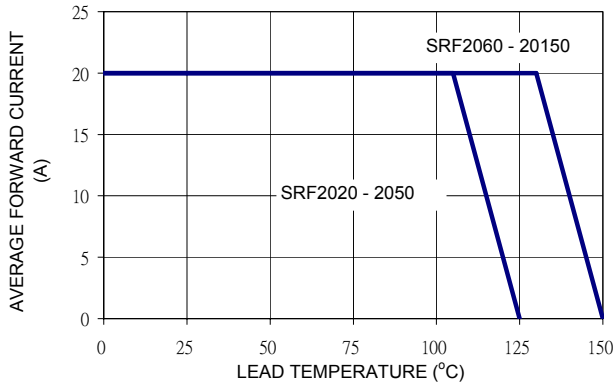


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

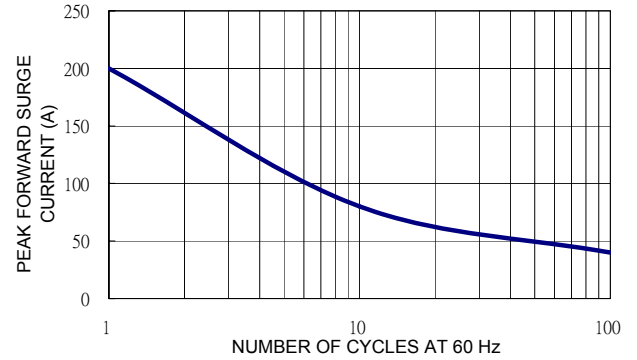


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

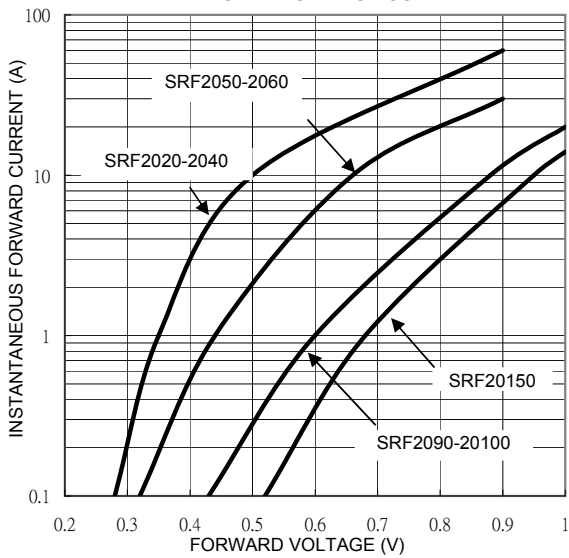


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

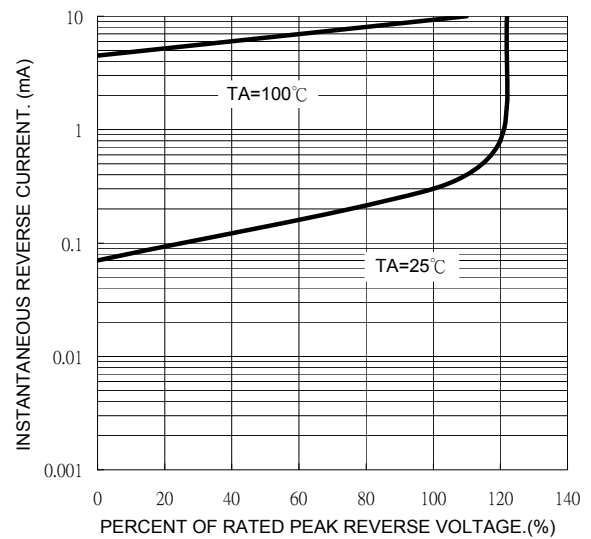


FIG. 5 TYPICAL JUNCTION CAPACITANCE

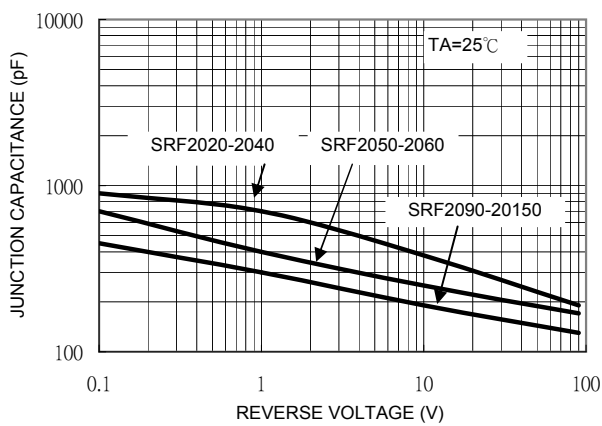


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

