

# SRF820 THUR SRF8100

## SCHOTTKY BARRIER RECTIFIERS

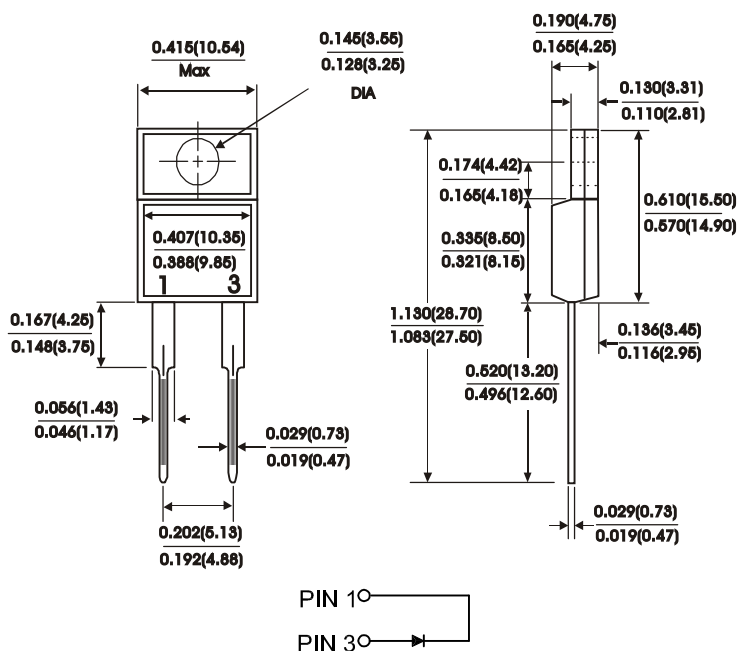
### ITO-220AC

#### FEATURES:

- Plastic package Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction Majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case

#### MECHANICAL DATA

Case : JEDEC ITO-220AC molded plastic  
 Terminals : Leads solderable per MIL-STD-750 Method 2026  
 Polarity : As marked  
 Mounting Postition : Any  
 Mounting Torque 5 in - lbs. max  
 Weight : 0.08 ounce, 2.24 grams



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%.

Characteristic	Symbol	SRF 820	SRF 830	SRF 835	SRF 840	SRF 845	SRF 850	SRF 860	SRF 880	SRF 8100	Units	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	35	40	45	50	60	80	100	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	25	28	32	35	42	56	70	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	30	35	40	45	50	60	80	100	Volts	
Maximum average forward rectified current at See fig.1	$I_{(AV)}$	8.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150									Amps	
Maximum instantaneous forward voltage (NOTE 2) $I_F=8.0A$	$V_F$	0.63			0.73			0.85		Volts		
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 2) $T_c=25^\circ C$ $T_c=125^\circ C$	$I_R$	0.5					50					mA
Typical thermal resistance (NOTE 1)	$R_{th-JC}$	5.0									°C/W	
Operating temperature range	$T_J$	-65to +150									°C	
Storage temperature range	$T_{Stg}$	-65to +150									°C	

NOTES:

(1) Thermal resistance from junction to case

(2) Pulse test : 300 us pulse width, 1% duty cycle

# RATINGS AND CHARACTERISTIC CURVES SRF820 THRU SRF 8100

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

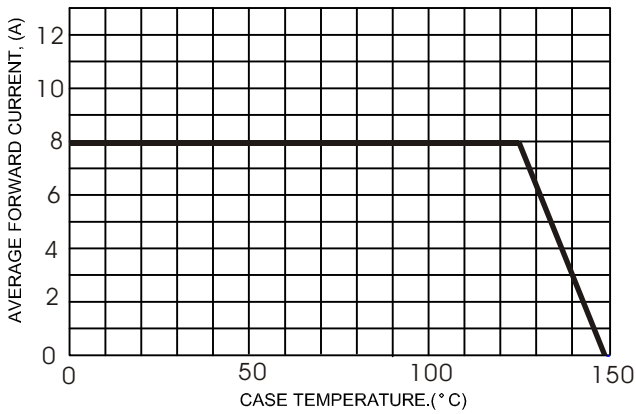


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

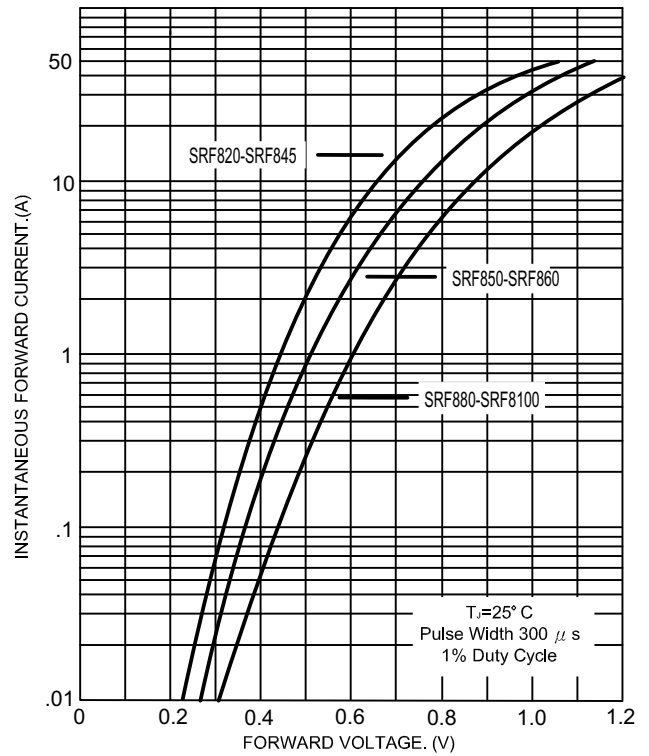


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

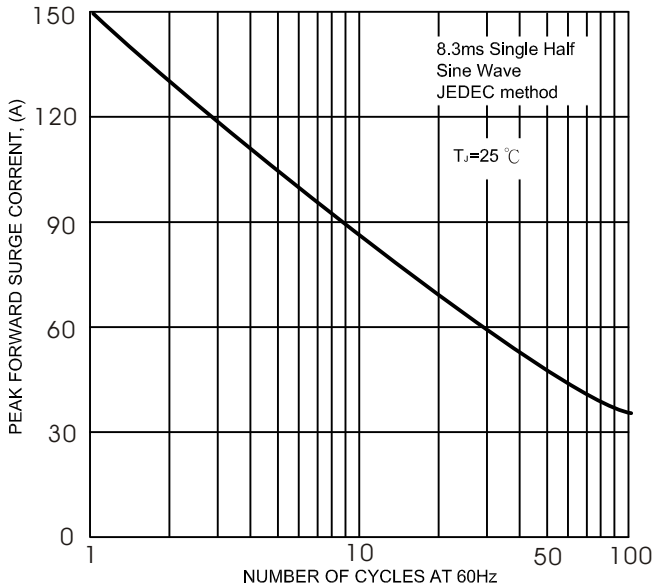


FIG.5- TYPICAL REVERSE CHARACTERISTICS

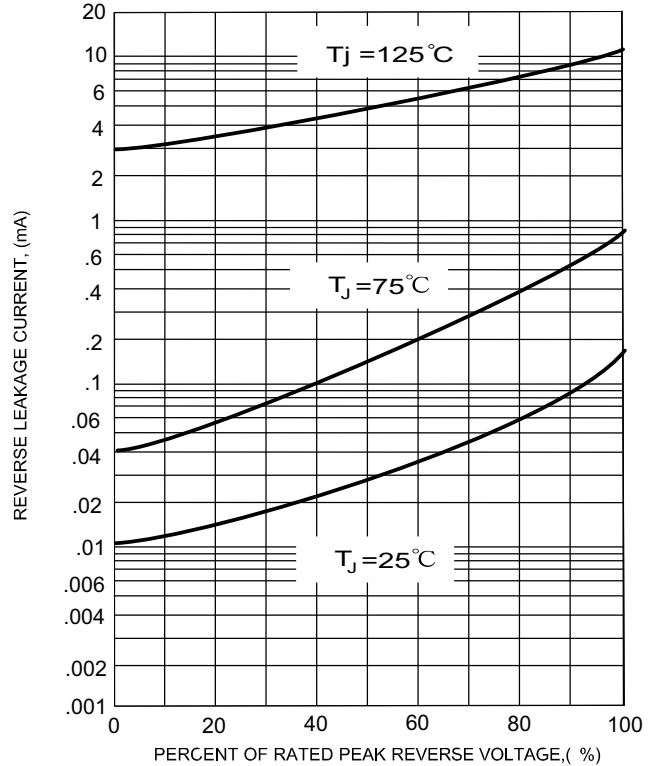


FIG.4- TYPICAL JUNCTION CAPACITANCE

