

### SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE: 70 - 100 V**  
**FORWARD CURRENT: 15 A**

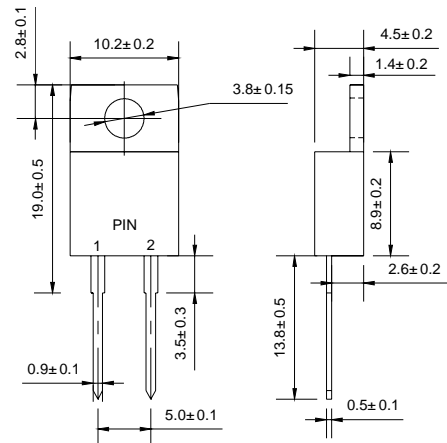
#### FEATURES

- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- ◇ Case:JEDEC TO--220AC,molded plastic
- ◇ Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.08ounce, 2.24 grams
- ◇ Mounting position: Any

#### TO-220AC



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

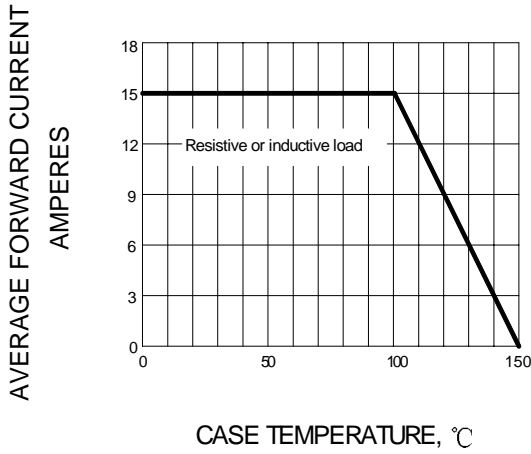
Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		SR 1570	SR 1580	SR 1590	SR 15A0	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	70	80	90	100	V
Working peak reverse voltage	$V_{RMS}$	49	56	63	70	V
Maximum DC blocking voltage	$V_{DC}$	70	80	90	100	V
Maximum average forward rectified current (See FIG.1)	$I_{F(AV)}$	15.0				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) @ $T_J=125^\circ\text{C}$	$I_{FSM}$	200				A
Maximum instantaneous forward voltage per leg @ 15A (Note1)	$V_F$	0.80		0.85		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	0.5 50.0				mA
Typical thermal resistance to case	$R_{\theta JC}$	2.5				$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 --- + 150				$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 --- + 150				$^\circ\text{C}$

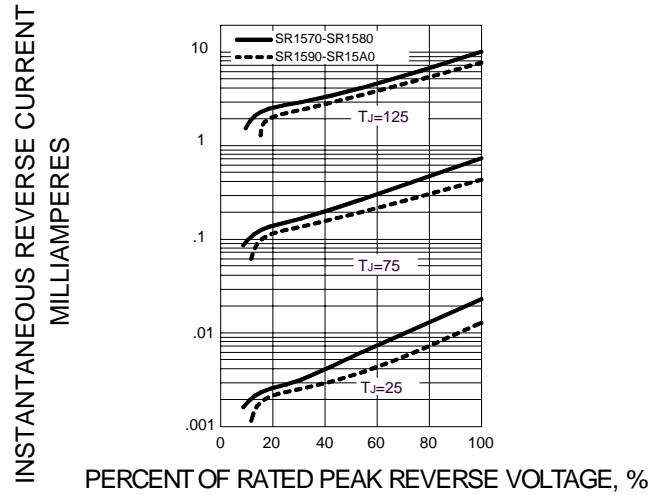
Note: 1. Pulse test:300us pulse width,1% duty cycle.

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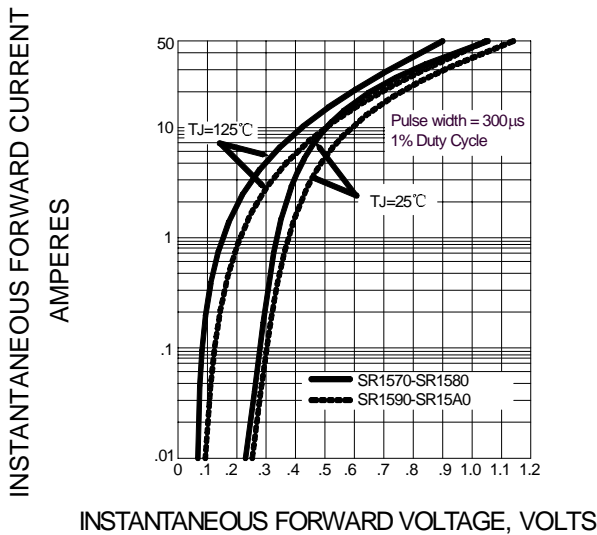
**FIG.1 – FORWARD CURRENT DERATING CURVE**



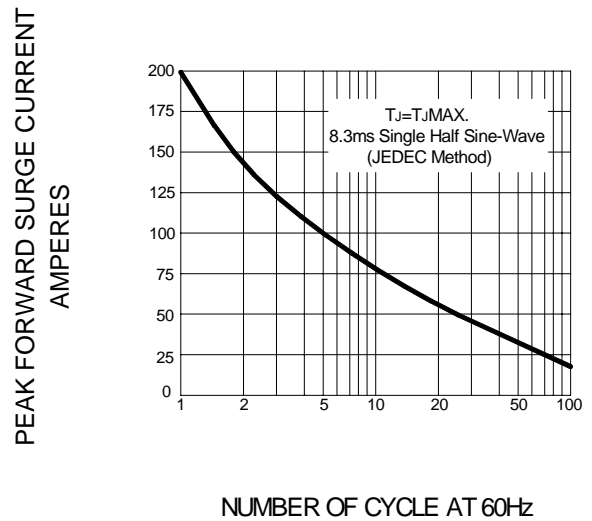
**FIG.2 – TYPICAL REVERSE CHARACTERISTICS PER LEG**



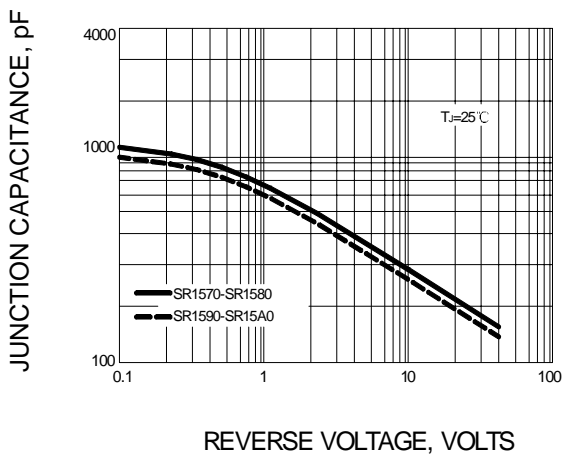
**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG.4 – PEAK FORWARD SURGE CURRENT**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**



**FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE**

