

### SCHOTTKY BARRIER RECTIFIER

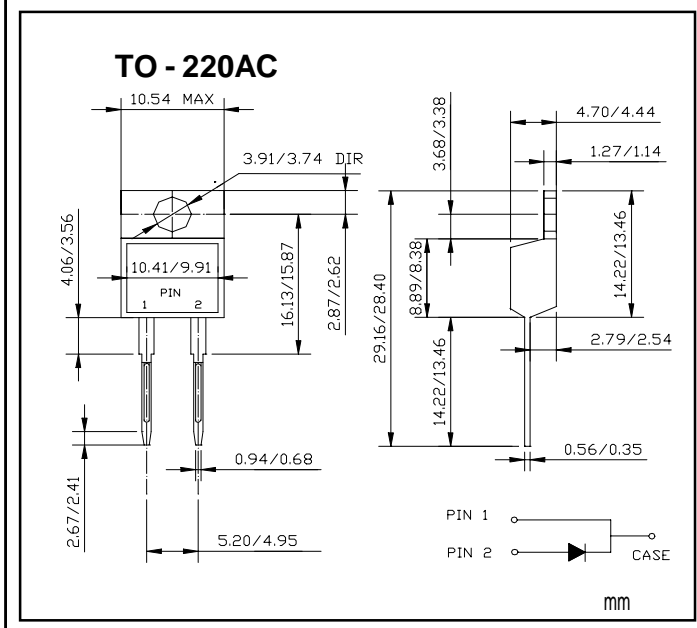
VOLTAGE RANGE: 20 --- 100 V  
CURRENT: 8.0A

#### FEATURES

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

#### MECHANICAL DATA

- ◇ Case: JEDEC TO-220AC, molded plastic
- ◇ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.078 ounces, 2.24 grams
- ◇ Mounting position: Any



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

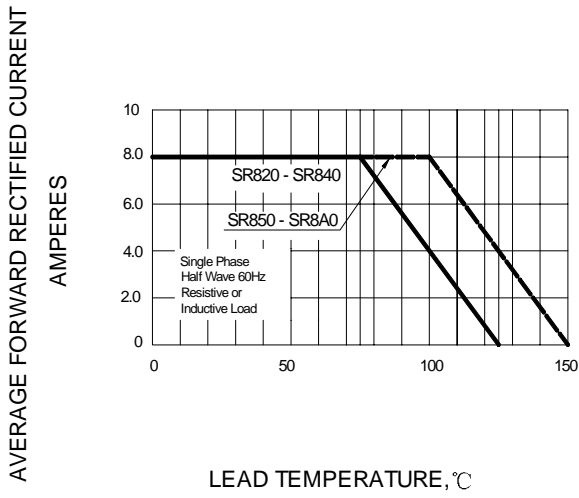
		SR820	SR830	SR840	SR850	SR860	SR880	SR8A0	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	8.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	150.0							A
Maximum instantaneous forward voltage @ 8.0A (Note 1)	$V_F$	0.65		0.75		0.8	0.85		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	1.0			50.0				mA
Typical thermal resistance (Note2)	$R_{\theta JA}$	3							°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 125			- 55 ---- + 150				°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150							°C

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

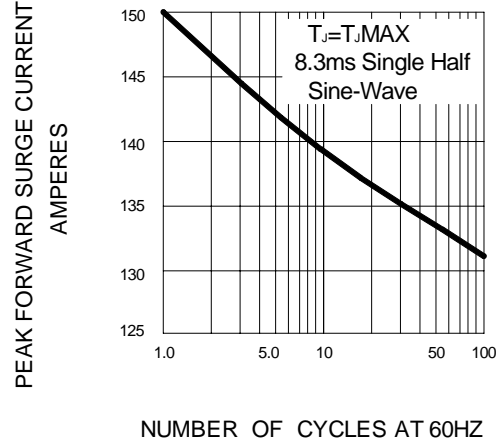
2. Thermal resistance junction to ambient

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



**FIG.2 -- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

