

SCHOTTKY BARRIER RECTIFIER

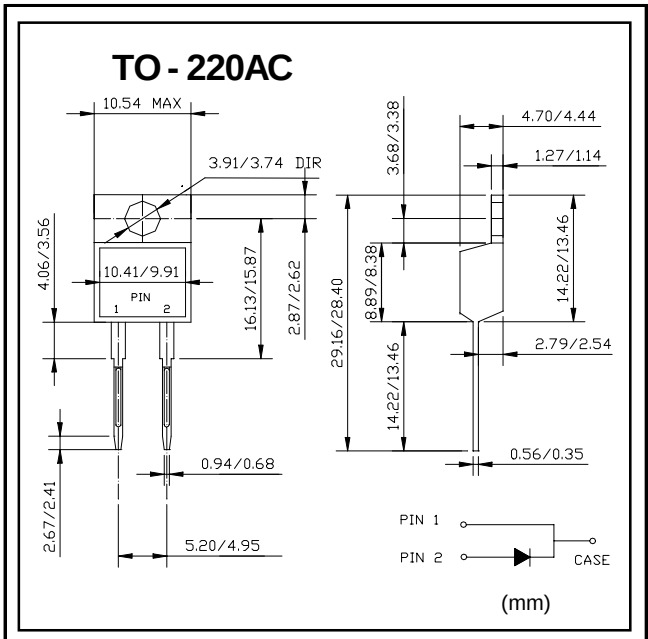
VOLTAGE RANGE: 20 --- 60 V
CURRENT: 10 A

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: 0.08 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, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		SR 1020	SR 1030	SR 1035	SR 1040	SR 1045	SR 1050	SR 1060	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	35	40	45	50	60	V
Maximum RMS voltage	V _{RMS}	14	21	25	28	32	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	35	40	45	50	60	V
Maximum average forward rectified current (See FIG.1)	I _{F(AV)}	10.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T _J =125°C	I _{FSM}	150.0							A
Maximum instantaneous forward voltage @ 10A (Note1)	V _F	0.65					0.75		V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	1.0							mA
		50.0					25.0		
Typical thermal resistance (Note2)	R _{θJC}	2.5							°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 case.

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FIG.1 – FORWARD CURRENT DERATING CURVE

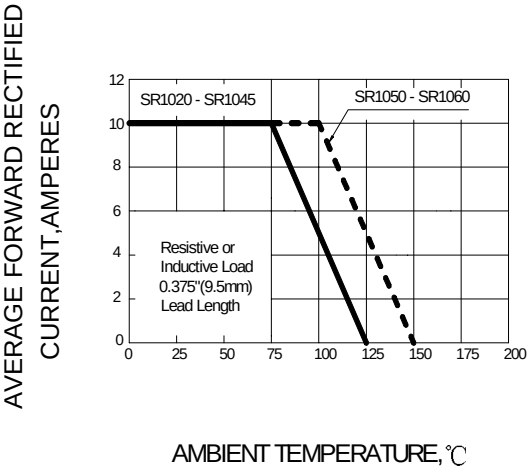


FIG.2 – PEAK FORWARD SURGE CURRENT

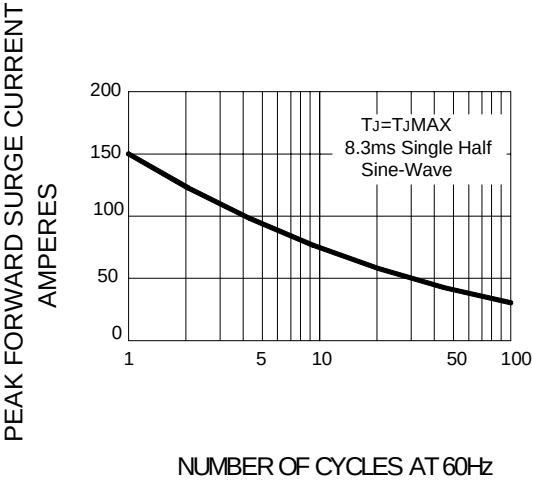


FIG.3 –TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

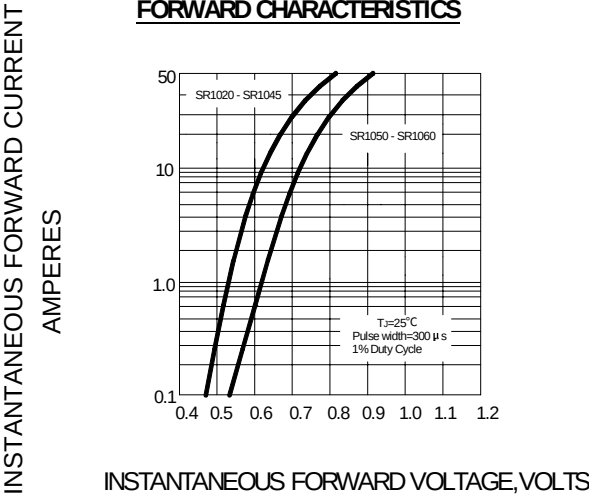


FIG.4–TYPICAL REVERSE CHARACTERISTICS

