

SCHOTTKY BARRIER RECTIFIERS

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

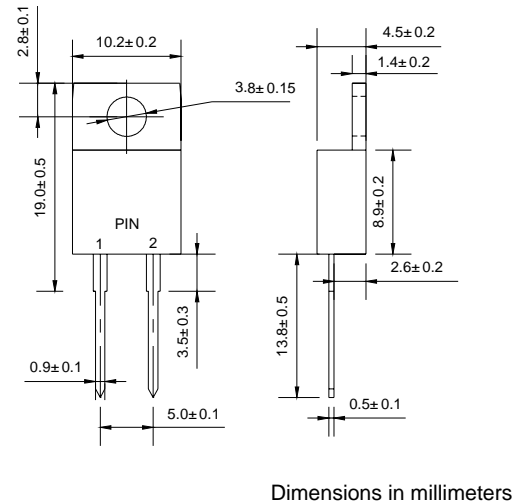
FEATURES

- ◇ 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: 0.064 ounces, 1.81 gram
- ◇ Mounting position: Any

TO - 220AC



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 $T_J=125^\circ\text{C}$	I_{FSM}	150.0							A
Maximum instantaneous forward voltage @ 10A (Note1)	V_F	0.65				0.75			V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	1.0				25.0			mA
Typical thermal resistance (Note2)	$R_{\theta JC}$	2.5							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 --- + 125				-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.

2. Thermal resistance junction to case.

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FIG.1 – FORWARD CURRENT DERATING CURVE

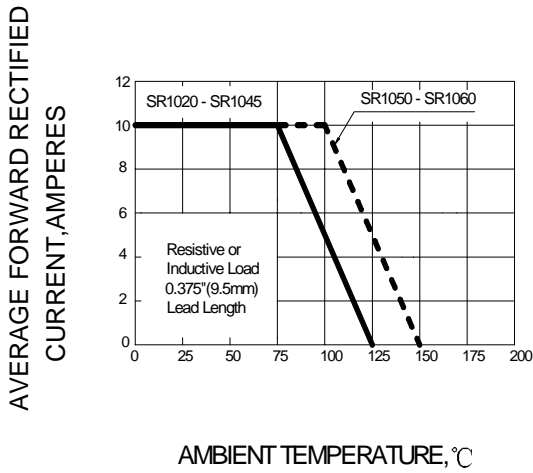


FIG.2 – PEAK FORWARD SURGE CURRENT

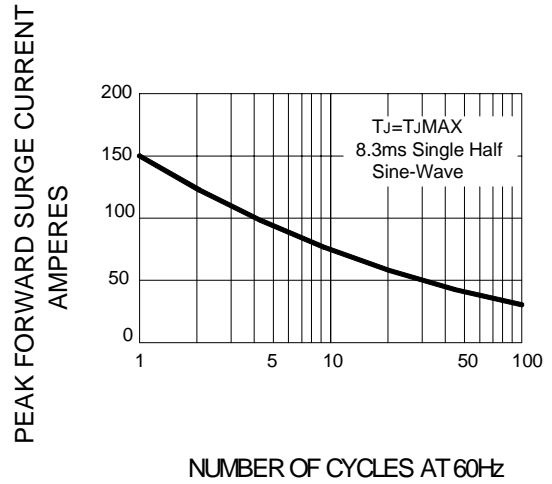


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

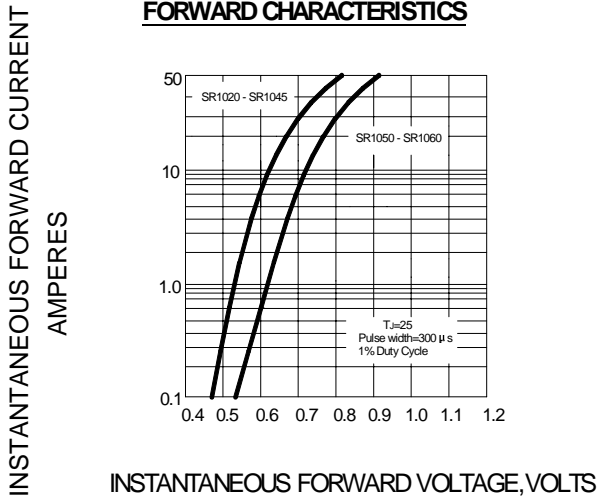


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

