

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 30 --- 100 V
CURRENT: 5.0 A

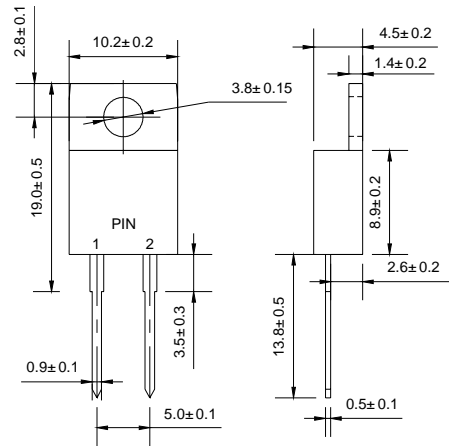
FEATURES

- ◇ 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: 0.069 ounces, 1.96 gram
- ◇ 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, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		SBL 530	SBL 535	SBL 540	SBL 545	SBL 550	SBL 560	SBL 580	SBL 5100	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	30	35	40	45	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	80	100	V
Maximum average forward rectified current $T_C=95^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_J=125^\circ\text{C}$	I_{FSM}	175								A
Maximum instantaneous forward voltage @ 5.0A	V_F	0.55			0.70		0.85			V
Maximum reverse current @ $T_C=25^\circ\text{C}$ at rated DC blocking voltage @ $T_C=100^\circ\text{C}$	I_R	0.5 33								mA
Typical thermal resistance (Note1)	$R_{\theta JC}$	3.0								$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55--- + 150								$^\circ\text{C}$
Storage temperature range	T_{STG}	-55--- + 150								$^\circ\text{C}$

Note: 1. Thermal resistance junction to case.

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FIG.1 – PEAK FORWARD SURGE CURRENT

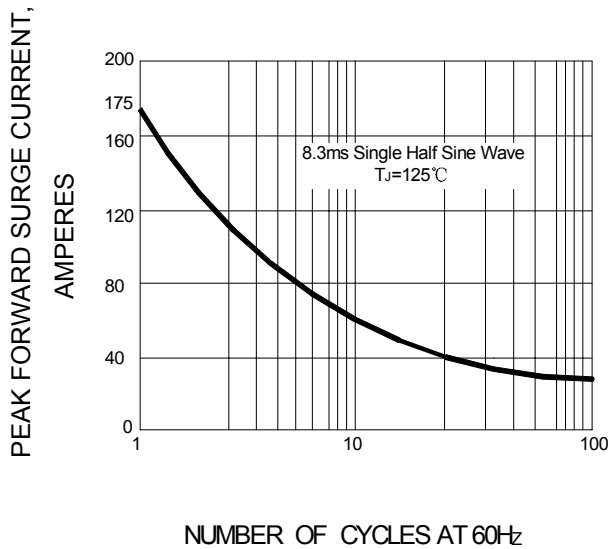


FIG.2 – FORWARD DERATING CURVE

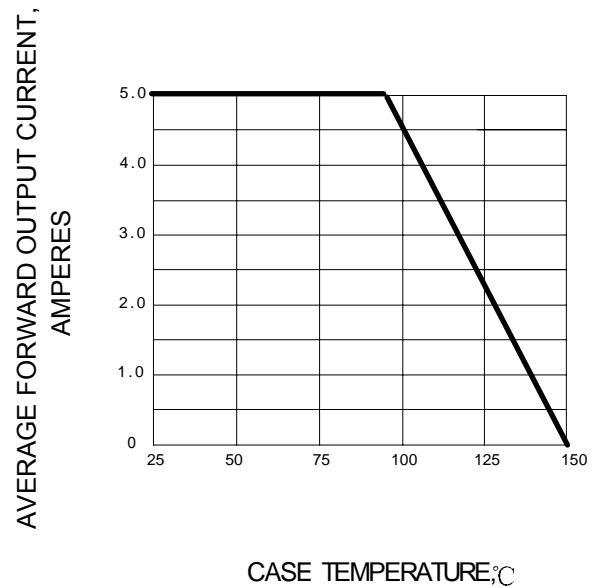


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

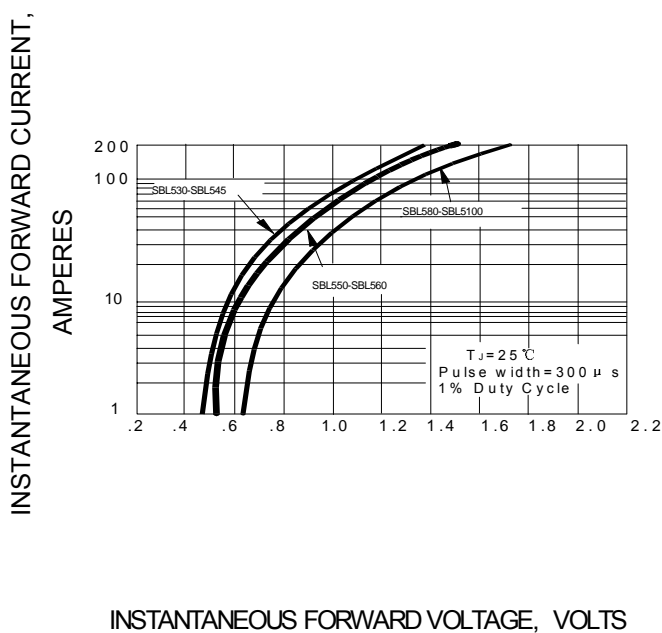


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

