



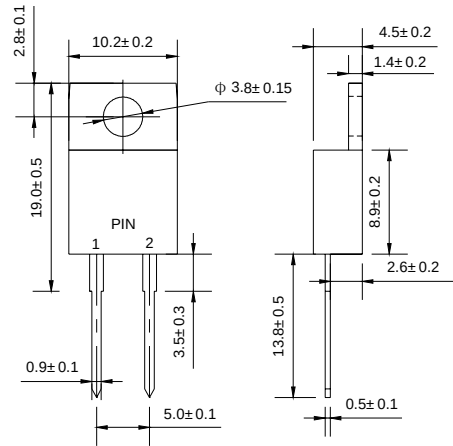
Features

- ◇ 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
- ◇ Polarity: As marked
- ◇ Weight: 0.069 ounces, 1.96 gram
- ◇ Mounting position: Any

TO-220AC



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

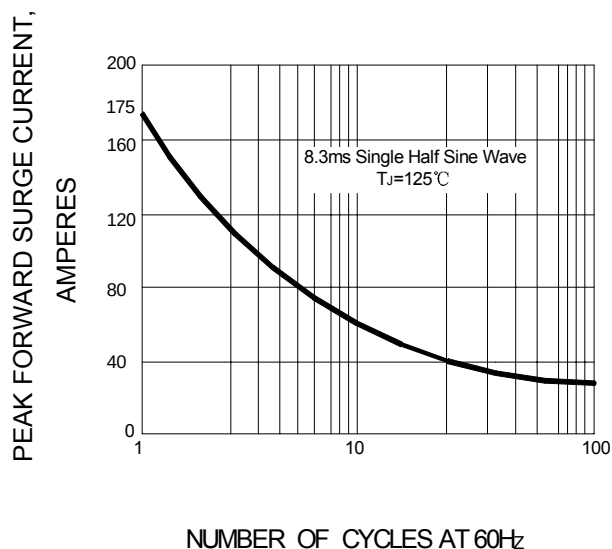
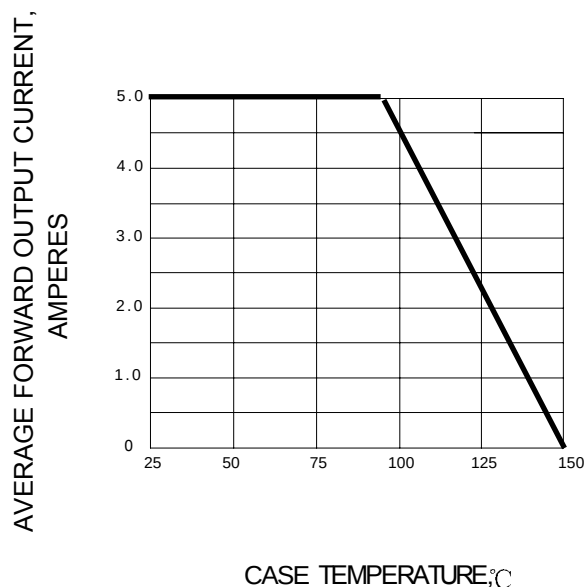
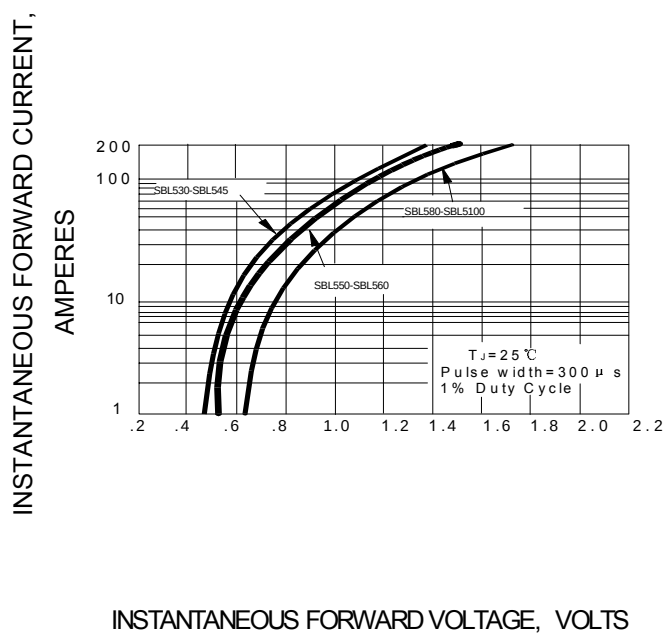
Ratings at 25°C ambient temperature unless otherwise specified.

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°C	I _{F(AV)}	5.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T _J =125°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°C at rated DC blocking voltage @T _C =100°C	I _R	0.5 33								mA
Typical thermal resistance (Note1)	R _{θJC}	3.0								°C/W
Operating junction temperature range	T _J	-55--- + 150								°C
Storage temperature range	T _{STG}	-55--- + 150								°C

Note: 1. Thermal resistance junction to case.

Ratings AND Characteristic Curves

FIG.1 – PEAK FORWARD SURGE CURRENT

FIG.2 – FORWARD DERATING CURVE

FIG.3 – TYPICAL FORWARD CHARACTERISTIC

FIG.4 – TYPICAL REVERSE CHARACTERISTIC
