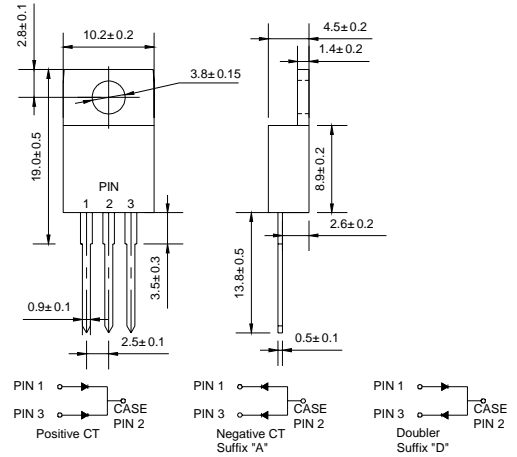




TO-220AB

Features

- ◇ Metal-Semiconductor junction with guardring
- ◇ 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



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC TO-220AB, molded plastic
- ◇ Polarity: As marked
- ◇ Weight: 0.071 ounce, 2.006 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

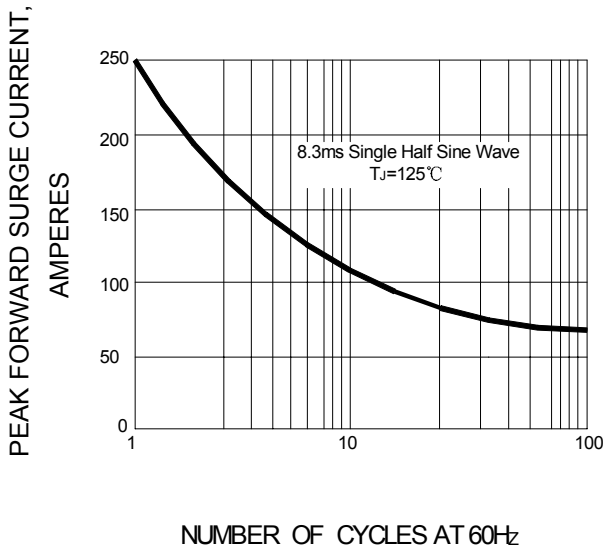
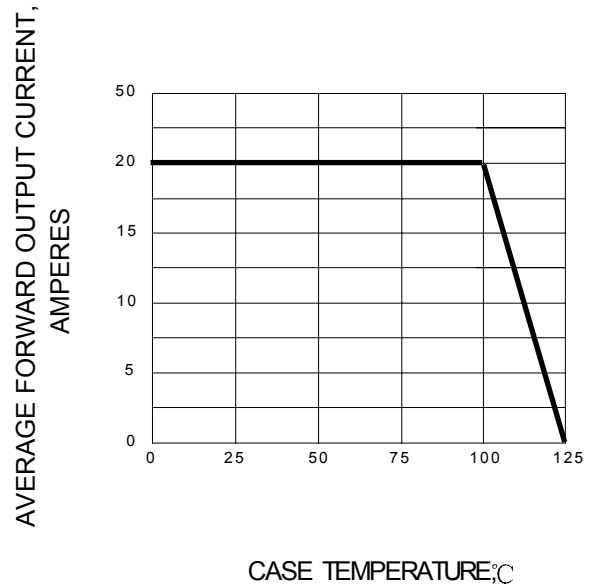
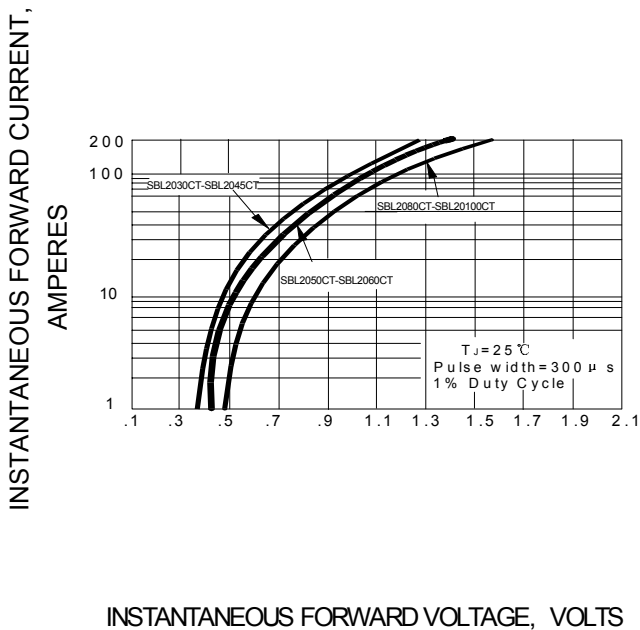
Ratings at 25°C ambient temperature unless otherwise specified.

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

		SBL 2030CT	SBL 2035CT	SBL 2040CT	SBL 2045CT	SBL 2050CT	SBL 2060CT	SBL 2080CT	SBL 20100CT	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 $T_C=100^\circ\text{C}$	$I_{F(AV)}$	20								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	250								A
Maximum instantaneous forward voltage @ 10 A	V_F	0.55			0.75		0.6			V
Maximum reverse current @ $T_C=25^\circ\text{C}$ at rated DC blocking voltage @ $T_C=100^\circ\text{C}$	I_R	1.0 50								mA
Typical thermal resistance (Note1)	$R_{\theta JC}$	1.5								$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 --- + 125								$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 --- + 150								$^\circ\text{C}$

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
