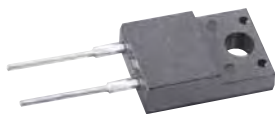# SBLF1030-SBLF10100

Schottky Barrier Rectifiers

VOLTAGE RANGE: 30 --- 100 V
CURRENT: 10 A

ITO-220AC
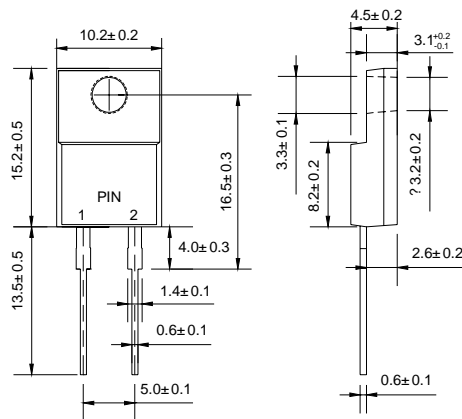
Features

◇ 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 ITO-220AC,molded plastic

◇ Polarity: As marked

◇ Weight: 0.056ounces,1.587 gram

◇ Mounting position: Any

Dimensions in millimeters
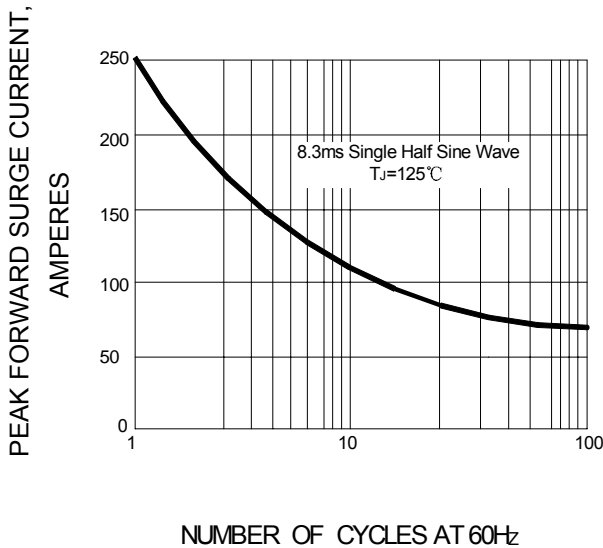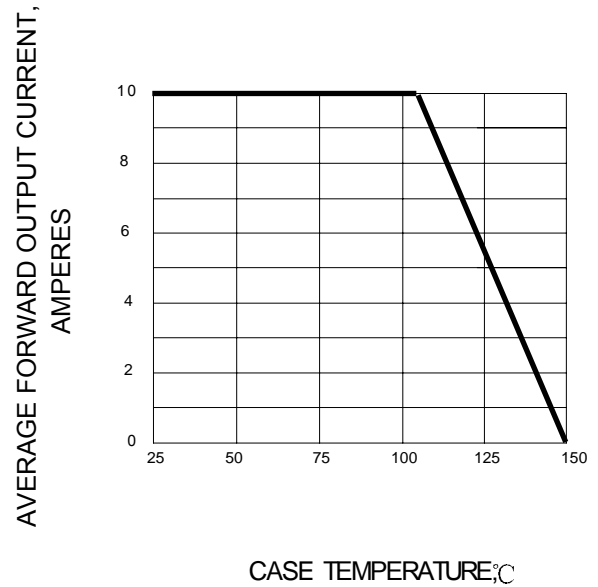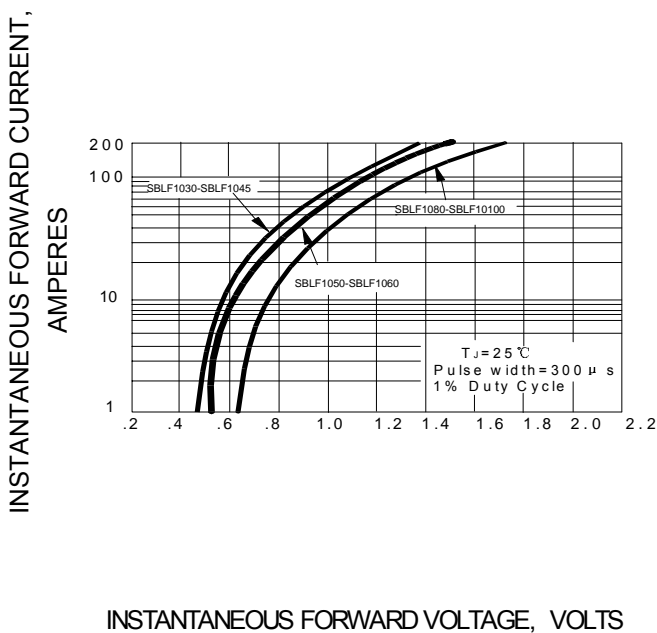
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		SBLF 1030	SBLF 1035	SBLF 1040	SBLF 1045	SBLF 1050	SBLF 1060	SBLF 1080	SBLF 10100	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=110℃	$I_{F(AV)}$	10								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T_J=125℃	I_{FSM}	250								A
Maximum instantaneous forward voltage @ 10 A	V_F	0.60				0.75		0.85		V
Maximum reverse current @T_C=25℃ at rated DC blocking voltage @T_C=100℃	I_R	1.0 50								mA
Typical thermal resistance (Note1)	$R_{\theta JC}$	5.0								℃/W
Operating junction temperature range	T_J	-55--- + 150								℃
Storage temperature range	T_{STG}	-55--- + 150								℃

Note: 1. Thermal resistance junction to case.

Ratings AND Charactieristic Curves

FIG.1 – PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT, AMPERES

8.3ms Single Half Sine Wave
T$_J$=125℃

NUMBER OF CYCLES AT 60Hz

FIG.2 – FORWARD DERATING CURVE

AVERAGE FORWARD OUTPUT CURRENT, AMPERES

CASE TEMPERATURE,℃

FIG.3 – TYPICAL FORWARD CHARACTERISTIC

INSTANTANEOUS FORWARD CURRENT, AMPERES

SBLF1030-SBLF1045

SBLF1080-SBLF10100

SBLF1050-SBLF1060

T$_J$=25℃
Pulse width=300μs
1% Duty Cycle

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.4 – TYPICAL REVERSE CHARACTERISTIC

INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

T$_C$=100℃

T$_C$=25℃

PERCENT OF RATED PEAK REVERSE VOLTAGE,%

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