DSK Diode Semiconductor Korea   *SBLF1630CT --- SBLF16100CT*

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 30 --- 100 V
CURRENT: 16 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 ITO-220AB,molded plastic
◇ Terminals: Solderable per
    MIL- STD-750,Method 202
◇ Polarity: As marked
◇ Weight: 0.08ounce, 2.24 grams
◇ Mounting position: Any

ITO-220AB
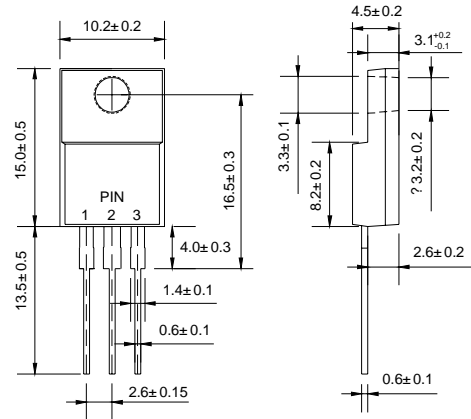
Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
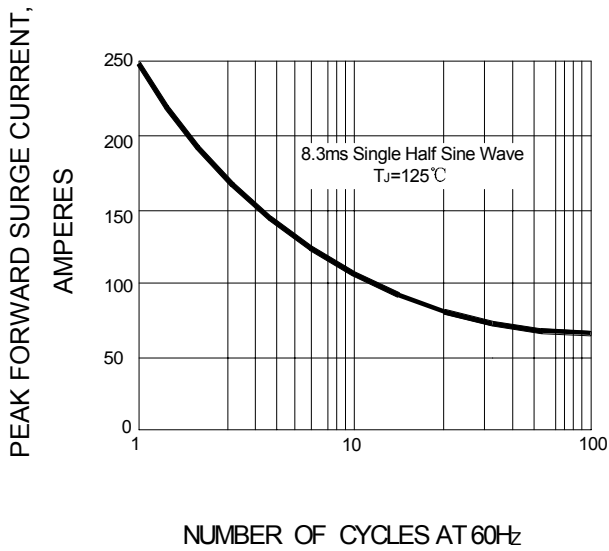
Ratings at 25℃ ambient temperature unless otherwise specified.

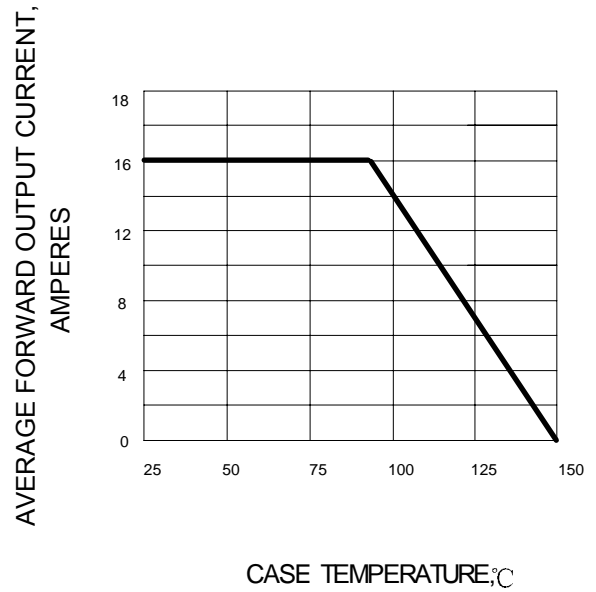Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		SBLF 1630CT	SBLF 1635CT	SBLF 1640CT	SBLF 1645CT	SBLF 1650CT	SBLF 1660CT	SBLF 1680CT	SBLF 16100CT	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 ℃	$I_{F(AV)}$	16								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 @ 8.0A	V_F	0.55				0.75		0.85		V
Maximum reverse current @T_C=25℃ at rated DC blocking voltage @T_C=100℃	I_R	0.5 / 50								mA
Typical thermal resistance (Note1)	$R_{\theta JC}$	2.0								℃/W
Operating junction temperature range	T_J	-55--- + 150								℃
Storage temperature range	T_{STG}	-55--- + 150								℃

Note: 1. Thermal resistance junction to case.

FIG.1 – PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT, AMPERES

8.3ms Single Half Sine Wave
TJ=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

SBLF1630CT-SBLF1645CT

SBLF1680CT-SBLF16100CT

SBLF1650CT-SBLF1660CT

TJ=25℃
Pulse width=300μs
1% Duty Cycle

INSTANTANEOUS FORWARD VOLTAGE, VOLTS
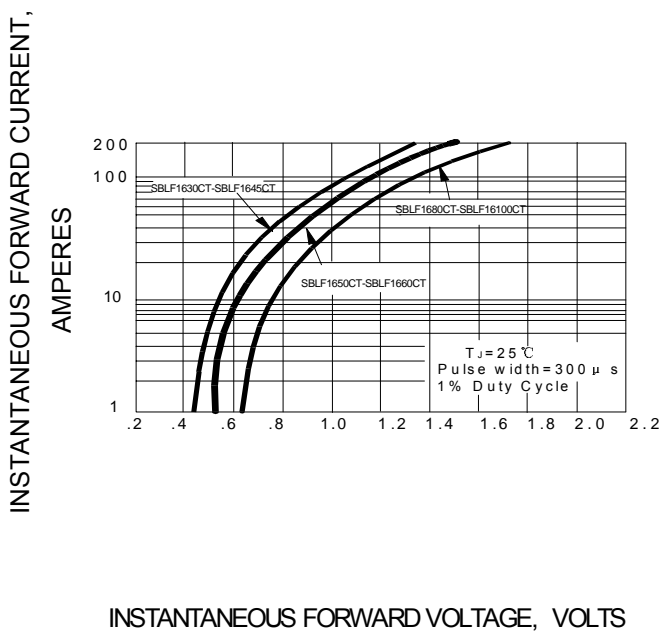
FIG.4 – TYPICAL REVERSE CHARACTERISTIC

INSTANTANEOUS REVERSE CURRENT, MILL AMPERES

Tc=100℃

Tc=25℃

PERCENT OF RATED PEAK REVERSE VOLTAGE,*%*