

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 --- 100 V
CURRENT: 16 A

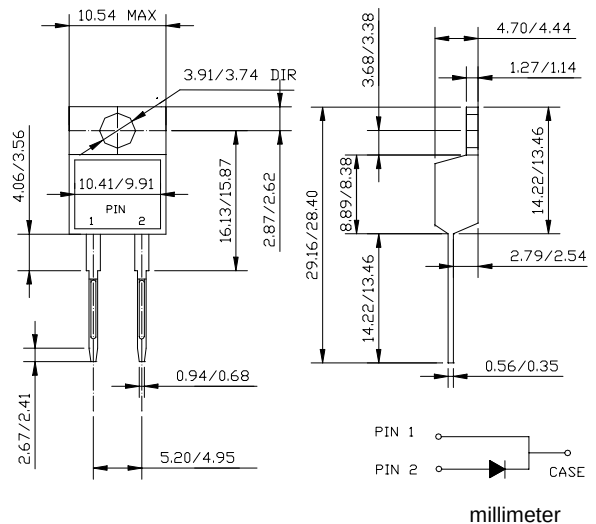
FEATURES

- ◇ 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 TO-220AC, molded plastic
- ◇ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.064 ounces, 1.81 gram
- ◇ Mounting position: Any

TO-220AC



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 1630	SBL 1635	SBL 1640	SBL 1645	SBL 1650	SBL 1660	SBL 1680	SBL 16100	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)}	16								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T _J =125°C	I _{FSM}	275								A
Maximum instantaneous forward voltage @ 16 A	V _F	0.57				0.75		0.85		V
Maximum reverse current @T _C =25°C at rated DC blocking voltage @T _C =100°C	I _R	1.0 50								mA
Typical thermal resistance (Note1)	R _{θJC}	3.5								°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.

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FIG.1 – PEAK FORWARD SURGE CURRENT

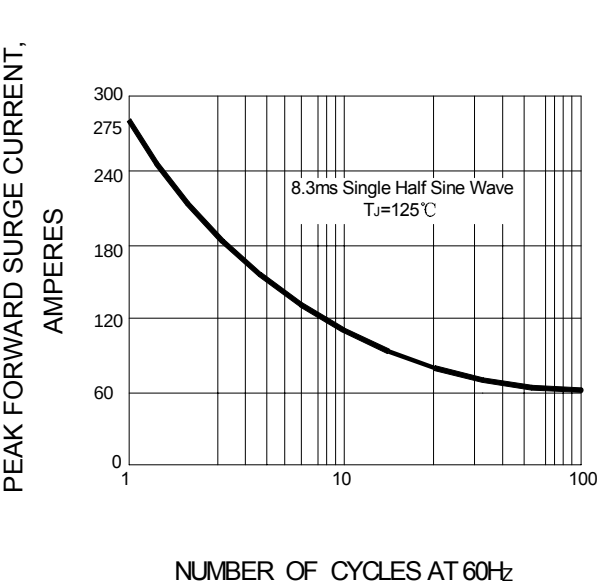


FIG.2 – FORWARD DERATING CURVE

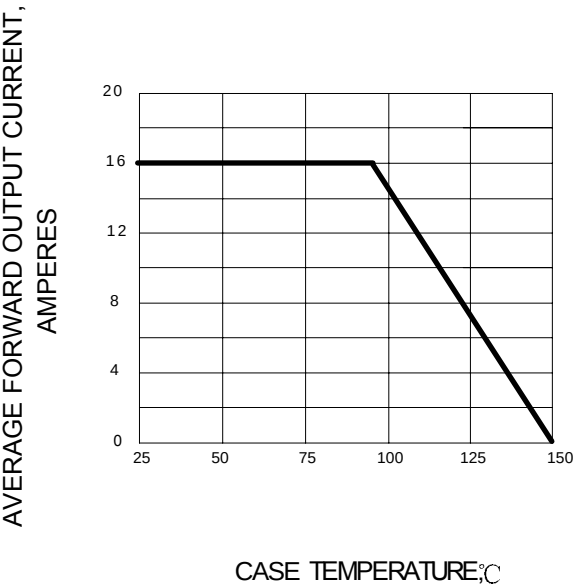


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

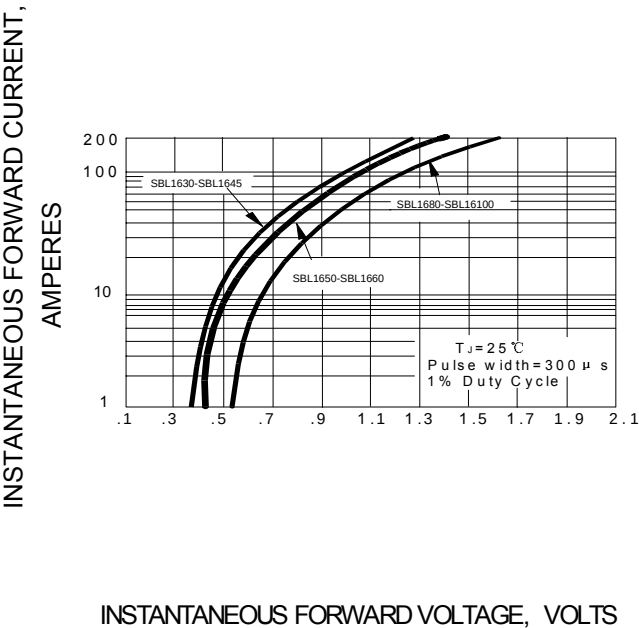


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

