BL GALAXY ELECTRICAL

SB380 --- SB3A0

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 80 --- 100 V
CURRENT: 3.0 A

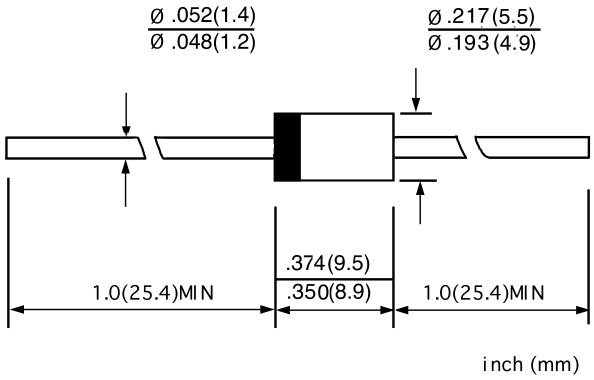
FEATURES

- ◇ 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 DO--27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces,1.15 grams
- ◇ Mounting position: Any

DO - 27



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%.

		SB380	SB390	SB3A0	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	80	90	100	V
Maximum RMS voltage	V_{RMS}	56	63	70	V
Maximum DC blocking voltage	V_{DC}	80	90	100	V
Maximum average forward rectified current 9.5mm lead length, (see fig.1)	$I_{F(AV)}$	3.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	80.0			A
Maximum instantaneous forward voltage @ 3.0 A (Note 1)	V_F	0.85			V
Maximum reverse current @T_A=25℃	I_R	0.5			mA
at rated DC blocking voltage @T_A=100℃		10.0			
Typical junction capacitance (Note2)	C_J	180			pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	40			℃/W
Operating junction temperature range	T_J	-55 --- +125			℃
Storage temperature range	T_{STG}	-55 --- +150			℃

NOTE: 1. Pulse test : 300μs pulse width,1% duty cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient

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FIG.1 -- FORWARD CURRENT DERATING CURVE

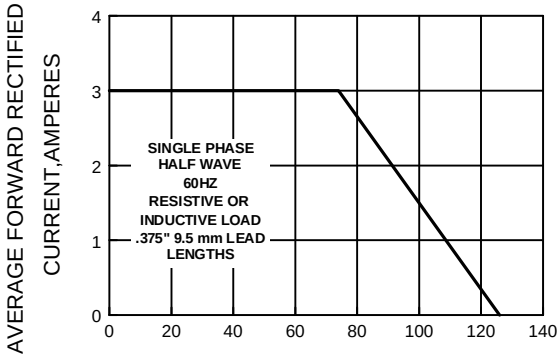

FIG.2 --MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

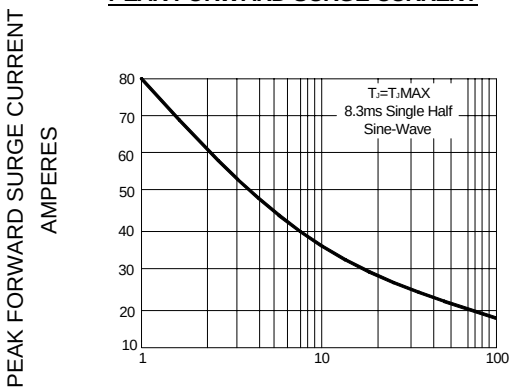

FIG.3 --TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

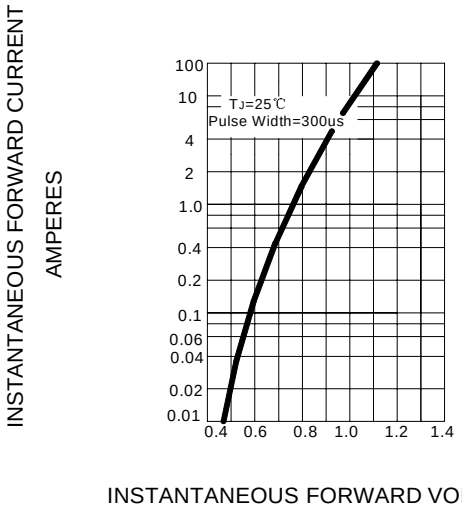

FIG.4--TYPICAL REVERSE CHARACTERISTICS

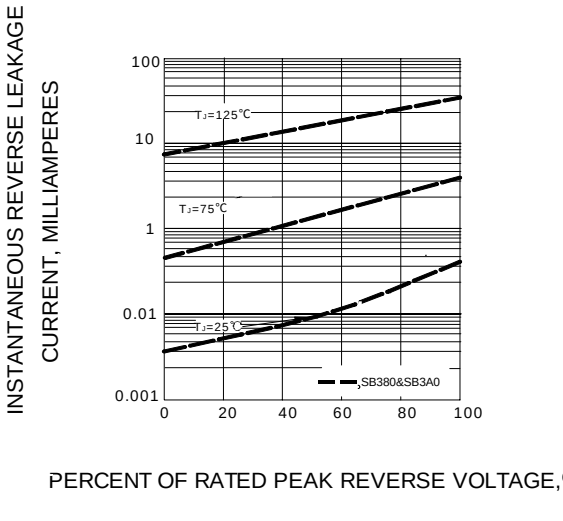

FIG.5--TYPICAL JUNCTION CAPACITANCE

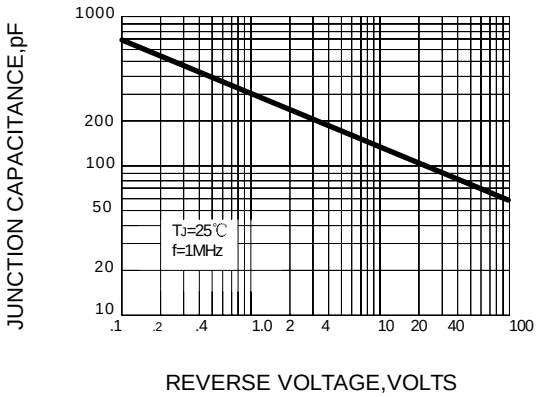

FIG.6--TYPICAL TRANSIENT THERMAL IMPEDANCE