SAMYANG ELECTRONICS

SB320 --- SB3A0

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 100 V
CURRENT: 3.0 A

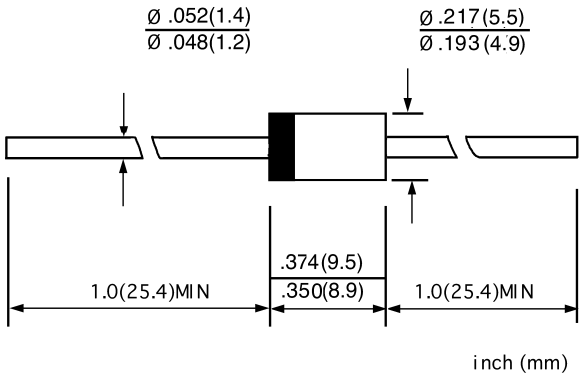
FEATURES

- ◇ 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-750,Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041ounces,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%.

		SB320	SB330	SB340	SB350	SB360	SB380	SB3A0	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0							A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	80.0							A
Maximum instantaneous forw ard voltage @ 3.0A (Note 1)	V_F	0.55			0.7		0.85		V
Maximum reverse current @T_A=25℃	I_R	1.5							mA
at rated DC blocking voltage @T_A=100℃		20.0			10.0				
Typical junction capacitance (Note2)	C_J	250			160				pF
Typical thermal resistance (Note3)	R_{JA}	40							℃
Operating junction temperature range	T_J	- 55 ---- + 125			- 55 ---- + 150				℃
Storage temperature range	T_{STG}	- 55 ---- + 150							℃

NOTE: 1. Pulse test:300us 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

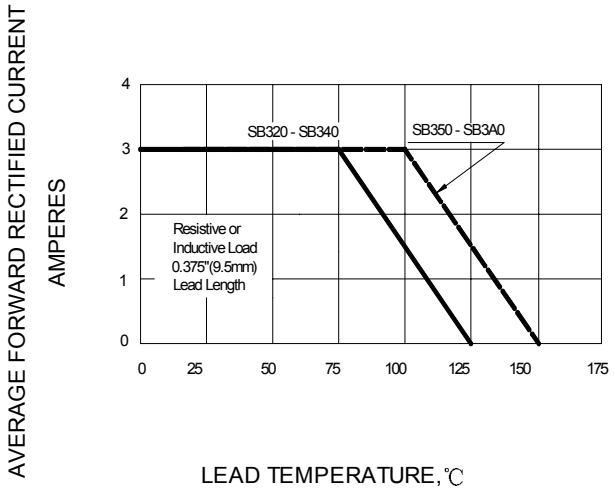

FIG.2 -- PEAK FORWARD SURGE CURRENT

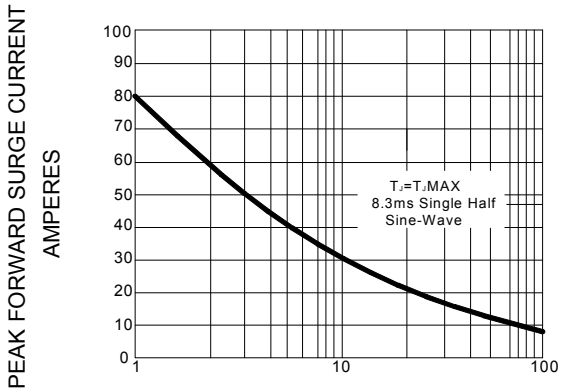

FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

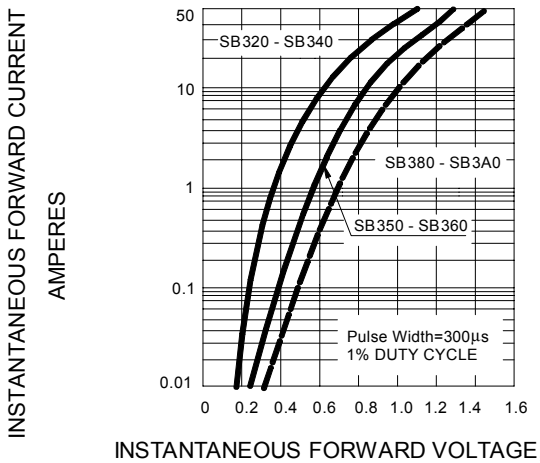

FIG.4 -- TYPICAL JUNCTION CAPACITANCE