SAMYANG ELECTRONICS

SB220 --- SB2200

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 20 --- 100 V
CURRENT: 2.0 A

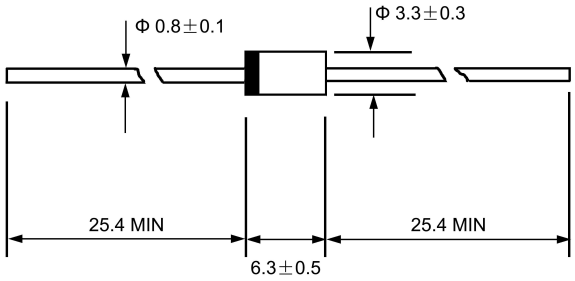
FEATURES

- ◇ 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--15,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014ounces,0.39 grams
- ◇ Mounting position: Any

DO - 15



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%.

		SB 220	SB 230	SB 240	SB 250	SB 260	SB 280	SB 2A0	SB 2150	SB 2200	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0									A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	50.0									A
Maximum instantaneous forward voltage @ 2.0A (Note 1)	V_F	0.55			0.7		0.85		0.9	0.95	V
Maximum reverse current @T_A=25℃	I_R	1.0									mA
at rated DC blocking voltage @T_A=100℃		10.0									
Typical junction capacitance (Note2)	C_J	170									pF
Typical thermal resistance (Note3)	R_{JA}	35									℃
Operating junction temperature range	T_J	- 55 ---- + 125									℃
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

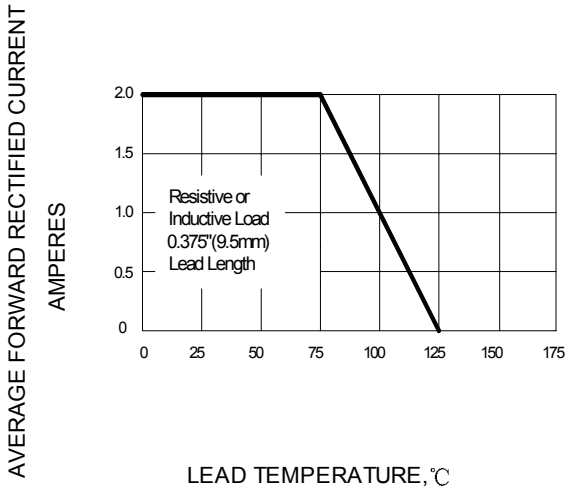


FIG.2 -- PEAK FORWARD SURGE CURRENT

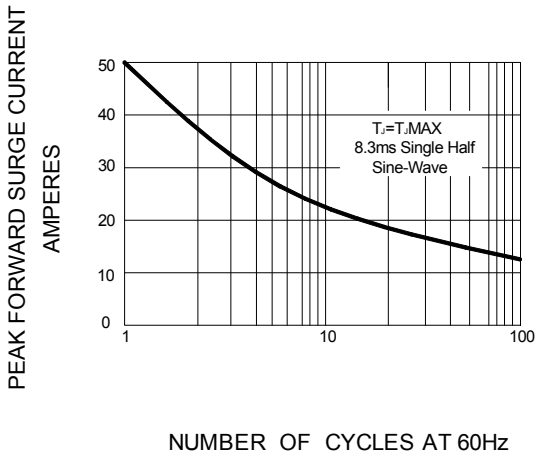


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

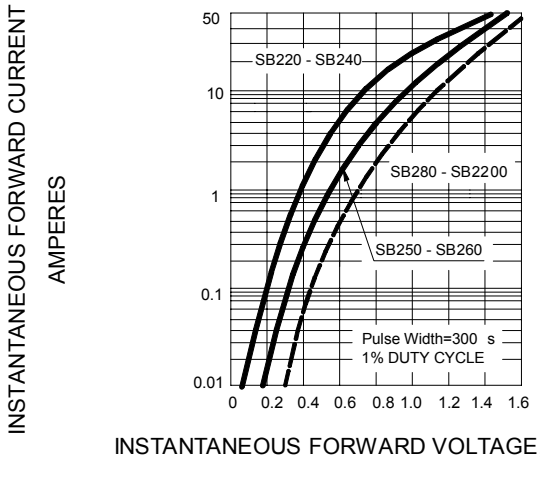


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

