SAMYANG ELECTRONICS

SB320 --- SB3200

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 200 V
CURRENT: 3.0 A

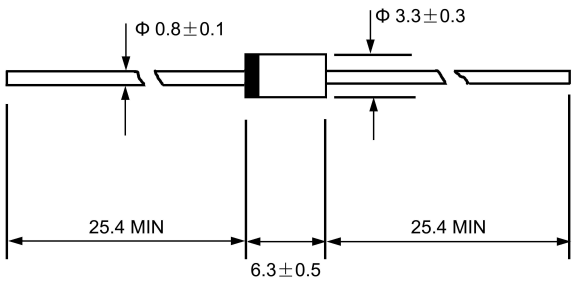
FEATURES

- ◇ 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-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%.

	Symbols	SB 320	SB 330	SB 340	SB 350	SB 360	SB 380	SB 3A0	SB 3150	SB 3200	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)	$I_{(AV)}$	3.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80.0									Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)	V_F	0.55			0.70		0. 85		0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=25°C	I_R	0.2									mA
T_A=100°C		20			10						
Typical junction capacitance(Note 3)	C_J	250			160						PF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ / $R_{\theta JL}$	40.0 / 10.0									˚C/W
Operating junction temperature range	T_J	-65 to+150									˚C
Storage temperature range	T_{STG}	-65 to+150									˚C

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

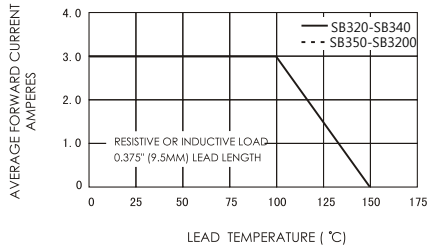


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

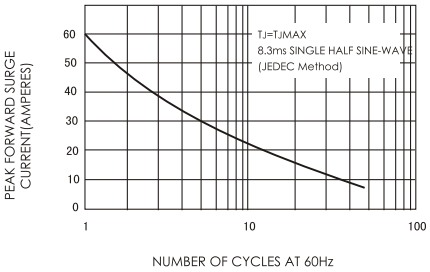


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

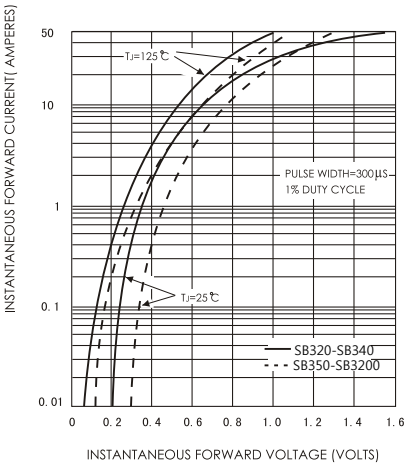


FIG.4-TYPICAL REVERSE CHARACTERISTICS

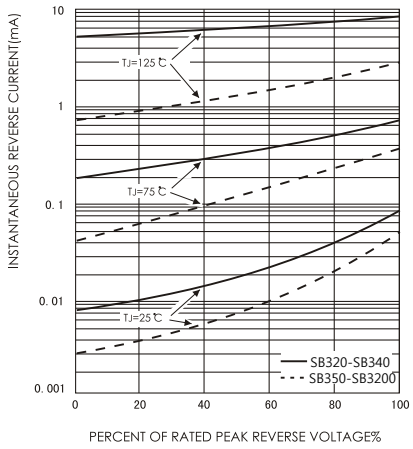


FIG.5-TYPICAL JUNCTION CAPACITANCE

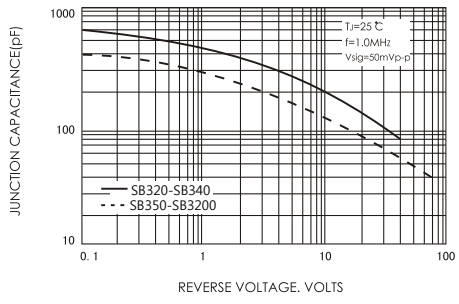


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

