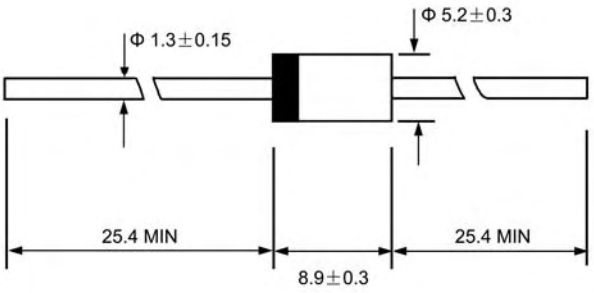
SB320-SB370

Schottky Barrier Rectifier

VOLTAGE RANGE: 20 --- 70 V
CURRENT: 3.0 A

DO - 27



Dimensions in millimeters

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

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	SB370	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	70	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	70	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	0.5			0.74			V
Maximum reverse current @T_A=25℃	I_R	0.5						mA
at rated DC blocking voltage @T_A=100℃		20.0			10.0			
Typical junction capacitance (Note2)	C_J	40						pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	40						℃/W
Operating junction temperature range	T_J	-55 --- +125			-55 --- +150			℃
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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Ratings AND Charactieristic Curves

FIG.1 -- FORWARD CURRENT DERATING CURVE

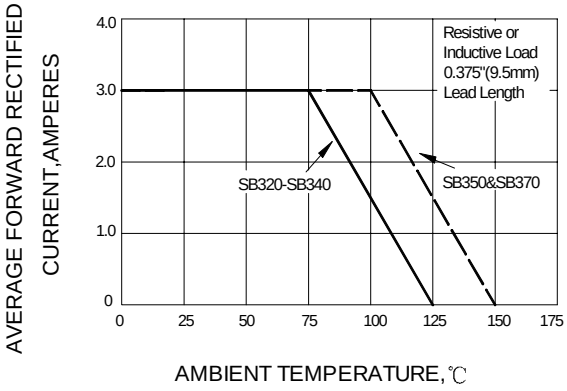

FIG.2 --MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

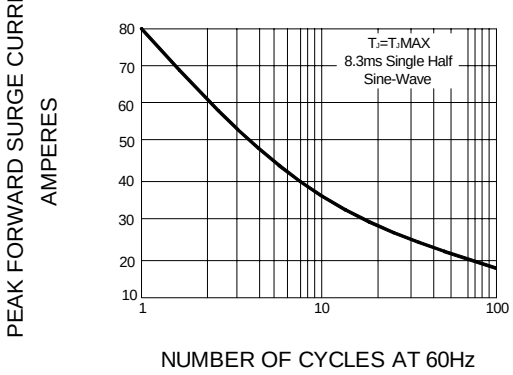

FIG.3 --TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

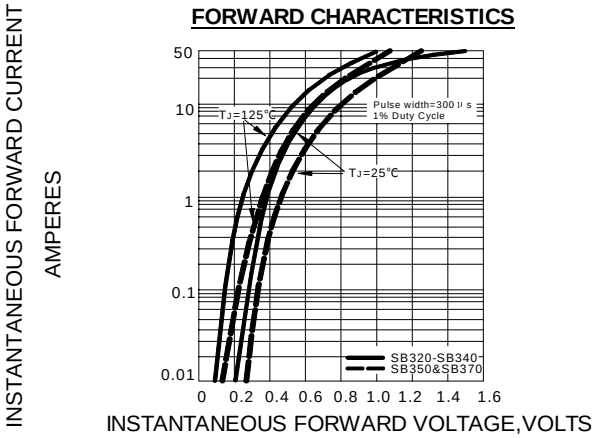

FIG.4--TYPICAL REVERSE CHARACTERISTICS

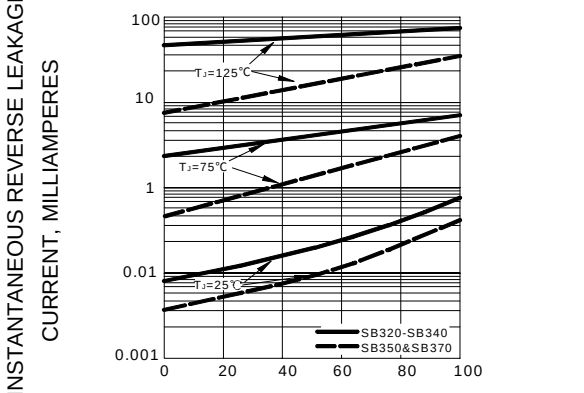

FIG.5--TYPICAL JUNCTION CAPACITANCE

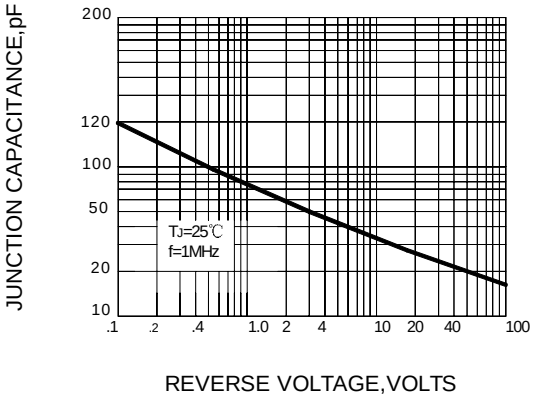

FIG.6--TYPICAL TRANSIENT THERMAL IMPEDANCE