DACO SEMICONDUCTOR CO., LTD.

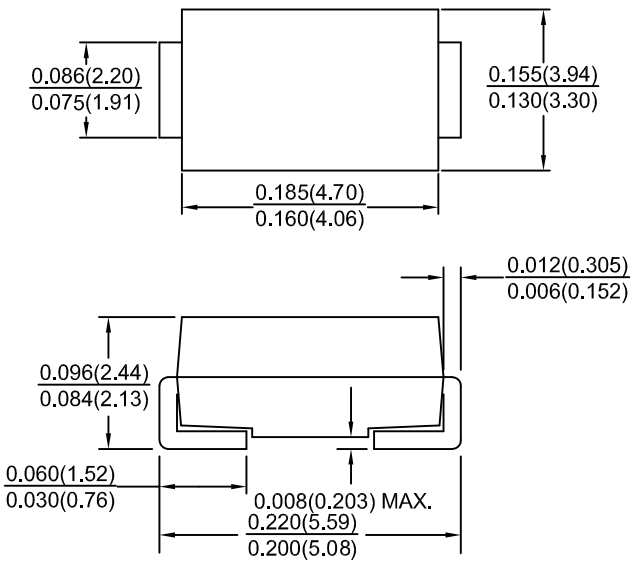
SB22 THRU SB2A0

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- Low power loss,high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guard ring for overvoltage protection
- High temperature soldering guaranteed: 250° C/10 seconds at terminals

SMB/DO-214AA



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case : JEDEC DO-214AA molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750 Method 2026

Polarity : Color band on body denotes cathode end

Weight : 0.039 grams, 0.003 ounce

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	SB 22	SB 23	SB 24	SB 25	SB 26	SB 28	SB 29	SB 2A0	Units
	Marking	S22	S23	S24	S25	S26	S28	S29	S2A0	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	64	70	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	90	100	Volts
Maximum average forward rectified current	$I_{(AV)}$	2.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	50 Ω								Amps
Maximum instantaneous forward voltage drop at 2.0 A (NOTE 1)	V_F	0.5	0.55		0.70		0.85			Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 1) Ta=25℃ Ta=100℃	I_R	0.5 20.0								mA
Maximum thermal resistance (NOTE 2)	R_{th-JA} R_{th-JL}	75.0 17.0								℃/W
Operating junction temperature range	T_J	-65 to +150								℃
Storage temperature range	T_{stg}	-65 to +150								℃

NOTES:

(1) Pulse test: 300 μ s pulse width,1% duty cycle

(2) P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CORRENT DERATING CURVE

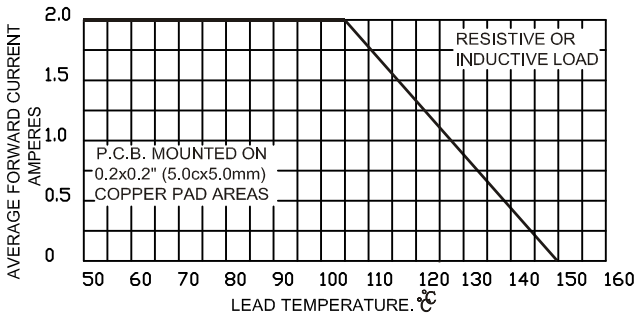


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

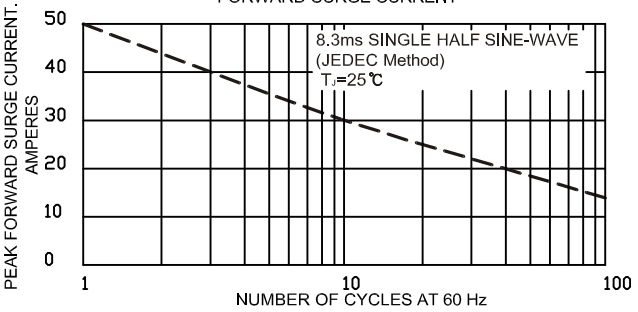


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

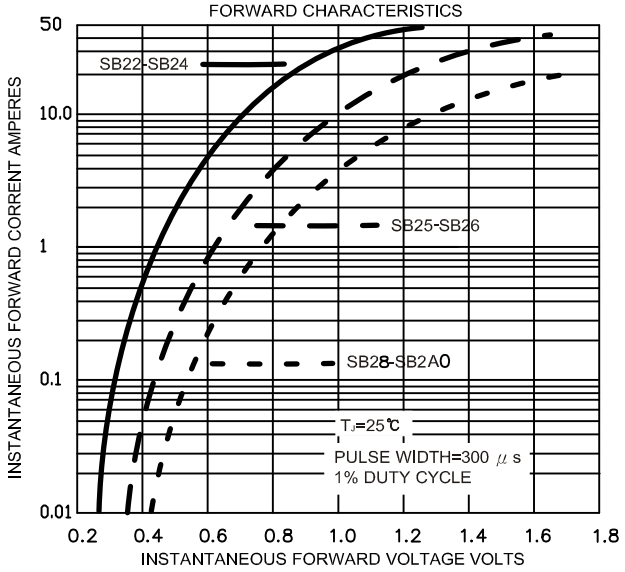


FIG.4-TYPICAL REVERSE CURRENT CHARACTERISTICS

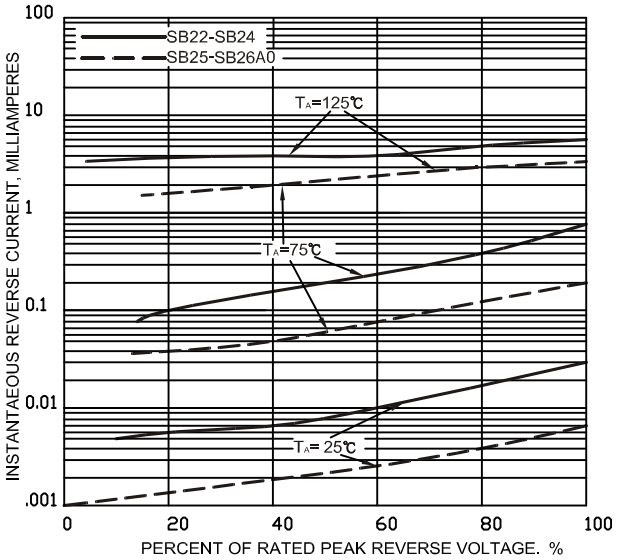
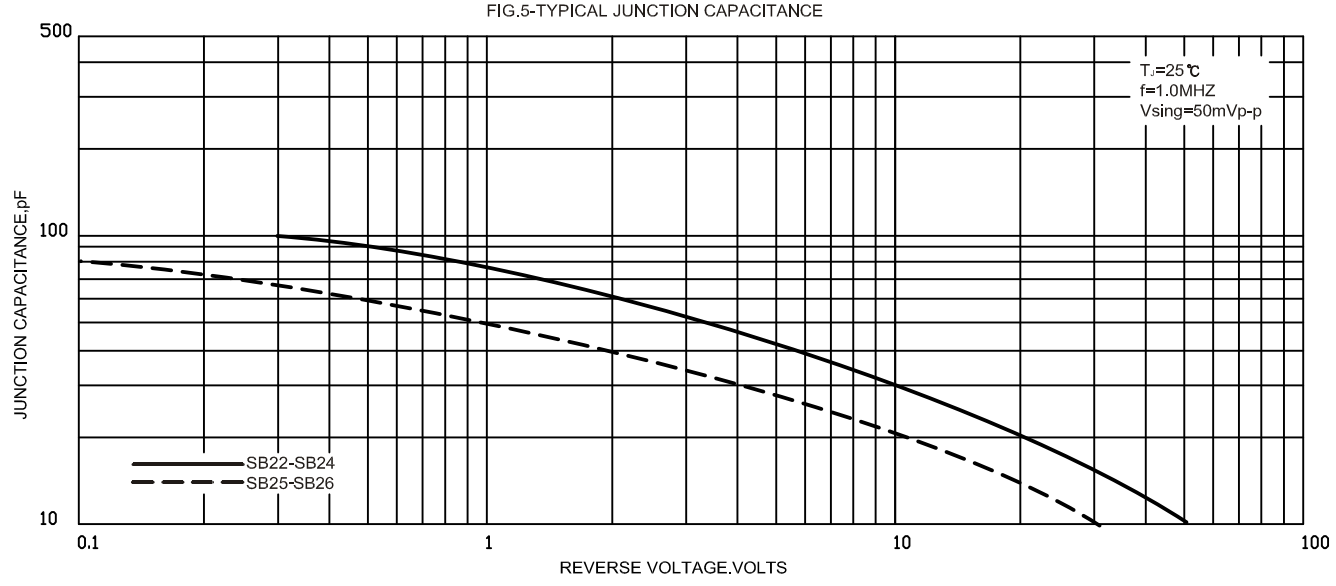


FIG.5-TYPICAL JUNCTION CAPACITANCE



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