



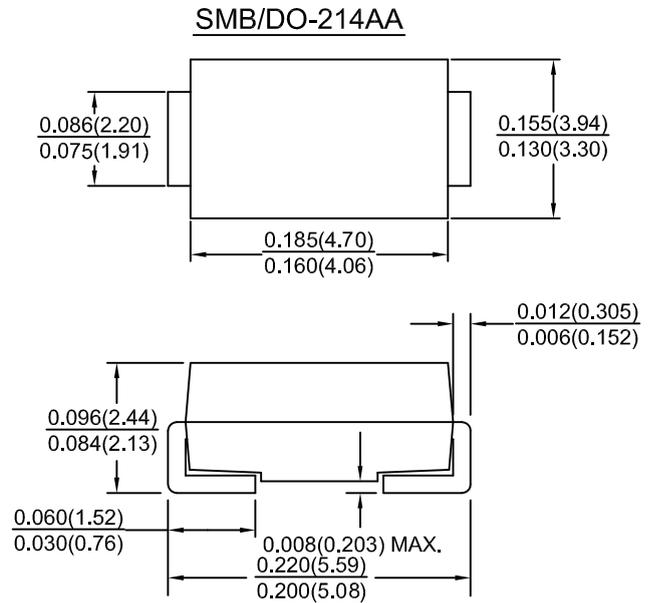
**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS**

**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

**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 : 0.093 grams, 0.003 ounce



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25 °C 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 32	SB 33	SB 34	SB 35	SB 36	SB 38	SB 39	SB 3A0	Units
	Marking	S32	S33	S34	S35	S36	S38	S39	S3A0	
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	64	70	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	90	100	Volts
Maximum average forward rectified current at TL(SEE FIG.1)	I <sub>(AV)</sub>	3.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I <sub>FSM</sub>	90.0								Amps
Maximum instantaneous forward voltage drop at 3.0 A (NOTE 1)	V <sub>F</sub>	0.5	0.55	0.70			0.85			Volts
Maximum instantaneous reverse current at rated DC blocking voltage(NOTE 1)	I <sub>R</sub>	0.5								mA
		20.0								
Maximum thermal resistance(NOTE 2)	R <sub>th-JA</sub> R <sub>th-JL</sub>	75.0								°C/W
		17.0								
Operating junction temperature range	T <sub>J</sub>	-65 to +150								°C
Storage temperature range	T <sub>stg</sub>	-65 to +150								°C

NOTES:  
 (1) Pulse test: 300 μs 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 CURRENT DERATING CURVE

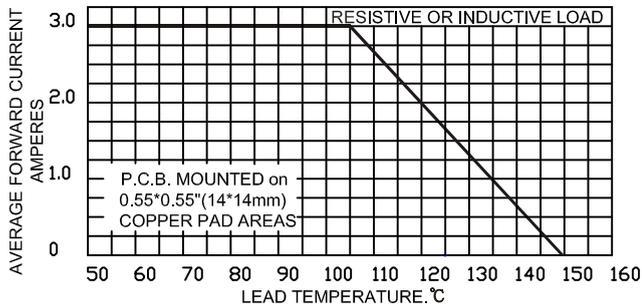


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

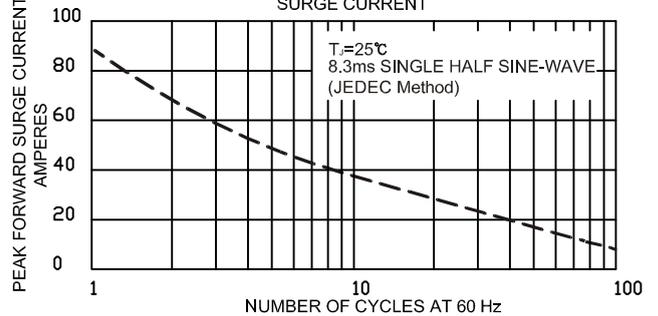


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

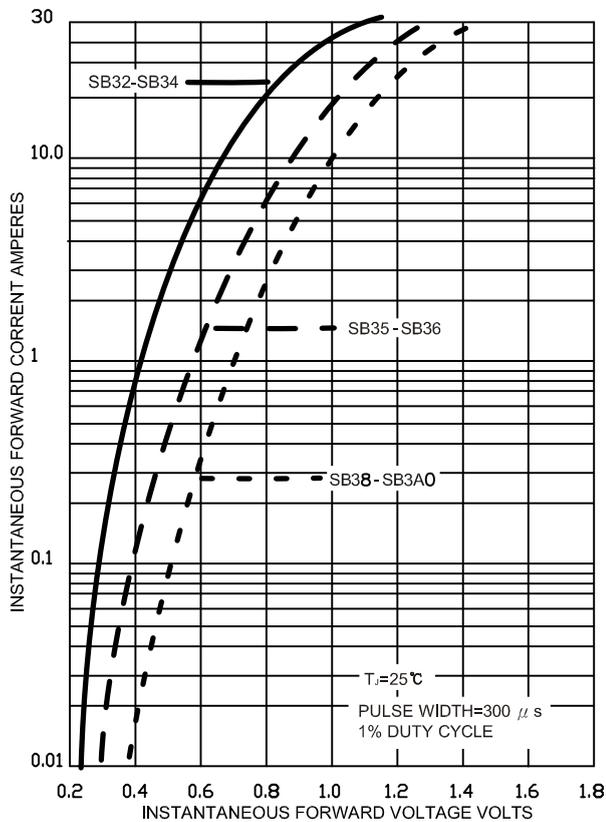


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

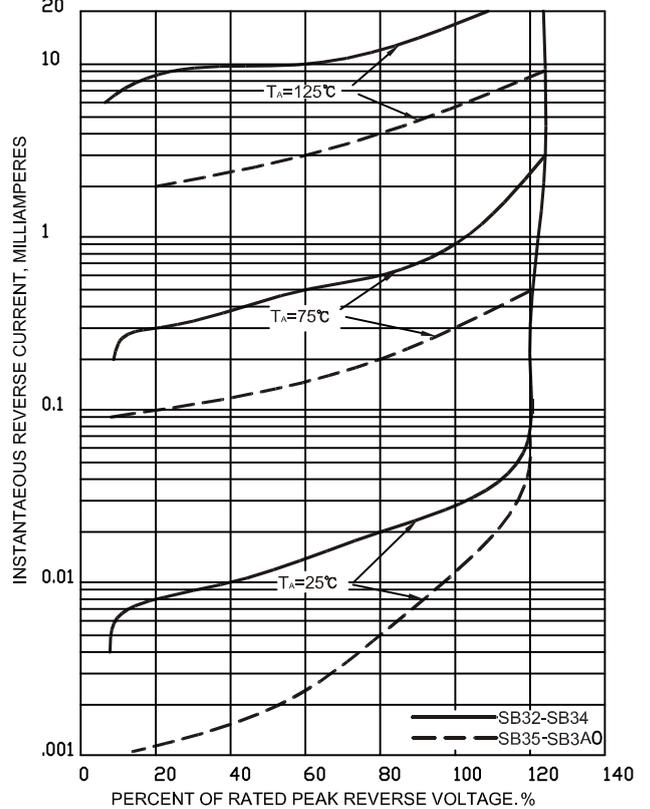


FIG.5 - TYPICAL JUNCTION CAPACITANCE

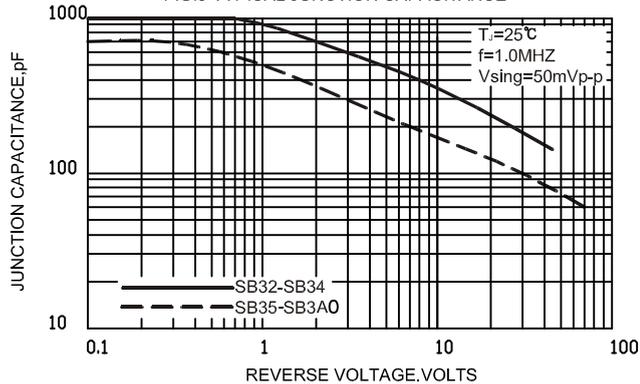
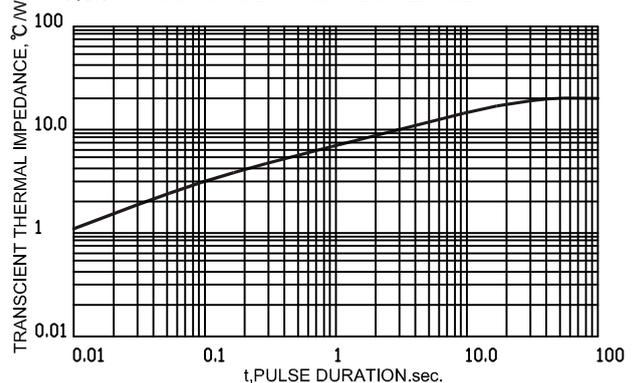


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE





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