

II. Schottky Rectifier

3.0A Surface Mount Schottky Rectifier

SB32~SB320

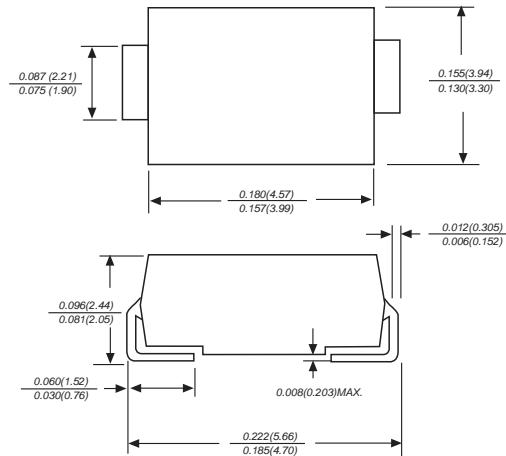
(Package: SMB (DO-214AA))

FEATURES

- The plastic package carries Underwriters Laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed : 250 /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 denotes cathode end
- Mounting Position : Any
- Weight : 0.090 grams



Case: SMB
Dimensions in inches and (millimetres)

Ratings & Electrical Characteristics

Ratings at 25° ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	SB 32	SB 33	SB 34	SB 35	SB 36	SB 38	SB 310	SB 315	SB 320	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	56	70	105	140	Volts	
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	150	200	Volts	
Maximum average forward rectified current at T _L (see Fig. 1)	I _O	3.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	70									Amps	
Maximum instantaneous forward voltage at 3.0A DC	V _F	0.55		0.70		0.85		0.95		Volts		
Maximum DC reverse current Ta = 25°C at rated DC blocking voltage Ta = 100°C	I _R	0.5				1.0				mA		
Typical junction capacitance (Note 1)	C _j	500		300				PF				
Typical thermal resistance (Note 2)	R _{th-JA}	55				62				°C/W		
Operating junction temperature range	T _j	-65 to +125		-65 to +150				°C				
Storage temperature range	T _{stg}	-65 to +150									°C	

Notes:

- Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.
- P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

Ratings and Characteristic Curves of SB32~SB320

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

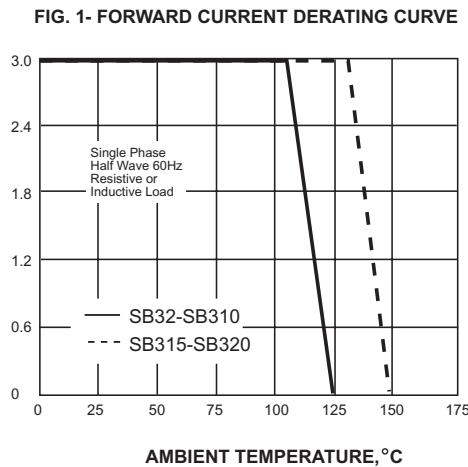
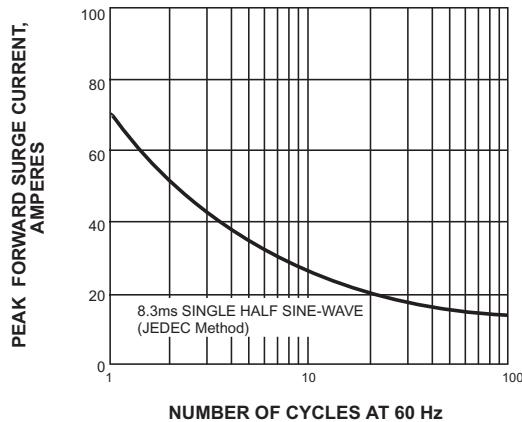


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



INSTANTANEOUS FORWARD CURRENT, AMPERES

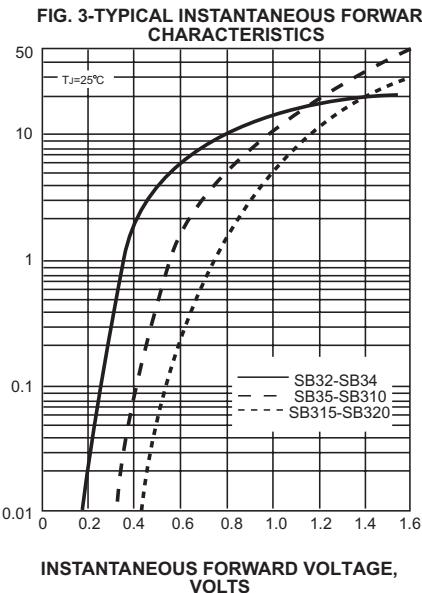
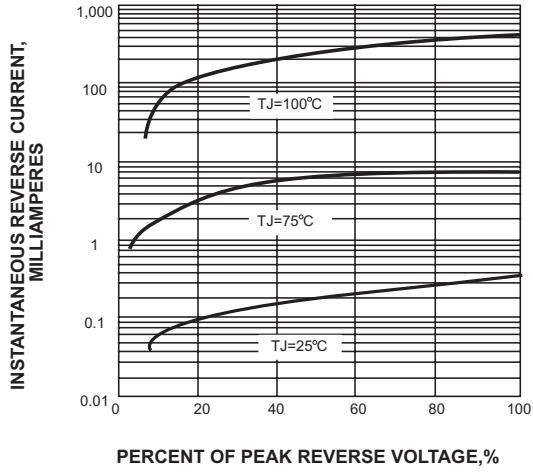


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

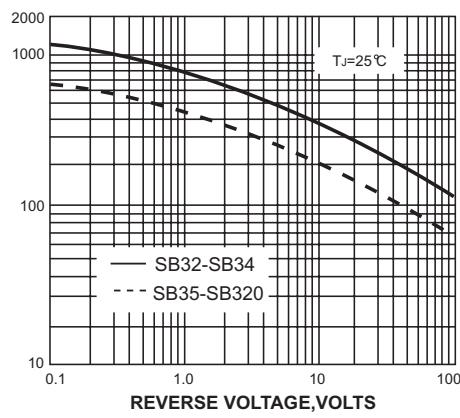


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

