

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 3.0 Amperes

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds at terminals

Mechanical Data

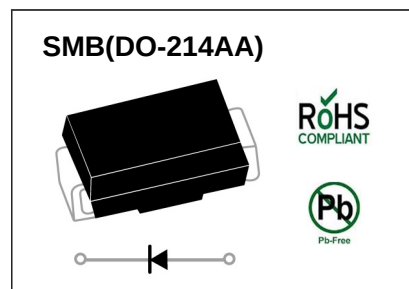
- Case: DO-214AA molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.003 ounce, 0.093 grams

Specification

Maximum Rating And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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



	SYMBOLS	SS32B	SS33B	SS34B	SS35B	SS36B	SS38B	SS310B	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current at T _L (see fig.1)	I _(AV)	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	70.0							A
Maximum instantaneous forward voltage at 3.0A	V _F	0.55			0.70		0.85		V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5				0.1		mA	
		20				10			
Typical junction capacitance (NOTE 1)	C _J	500			300			pF	
Typical thermal resistance (NOTE 2)	R _{θJA}	68.0							°C/W
Operating junction temperature range	T _J ,	-55 to +125			-55 to +150			°C	
Storage temperature range	T _{STG}	-55 to +150							°C

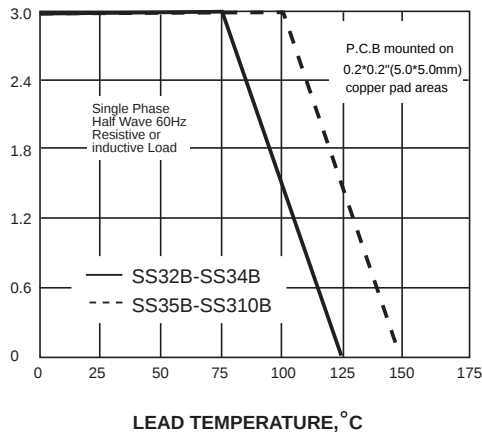
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Ratings and characteristic curves SS32B thru SS310B

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

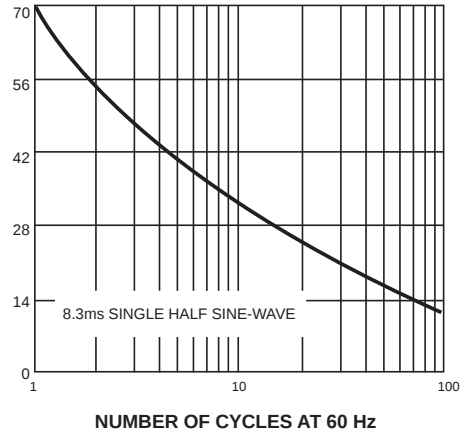
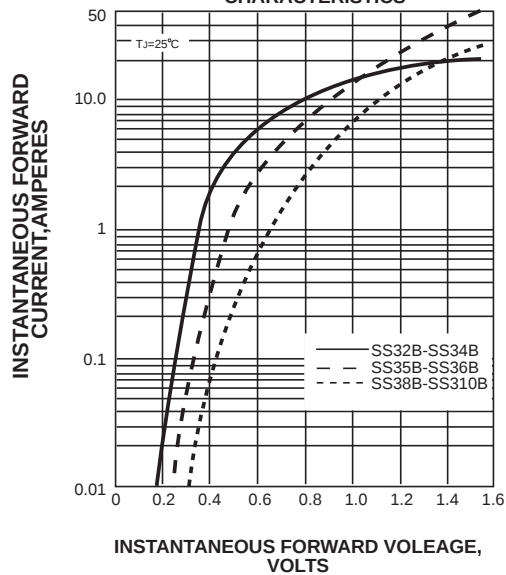


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

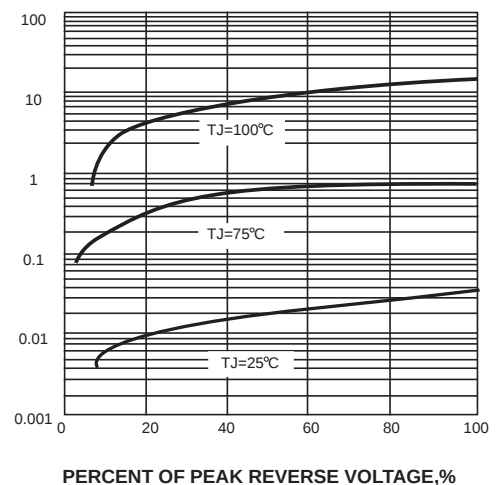
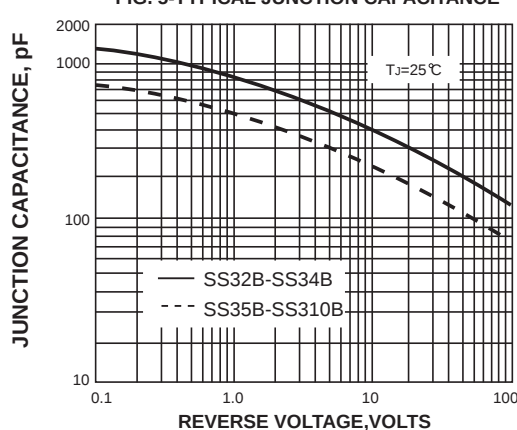
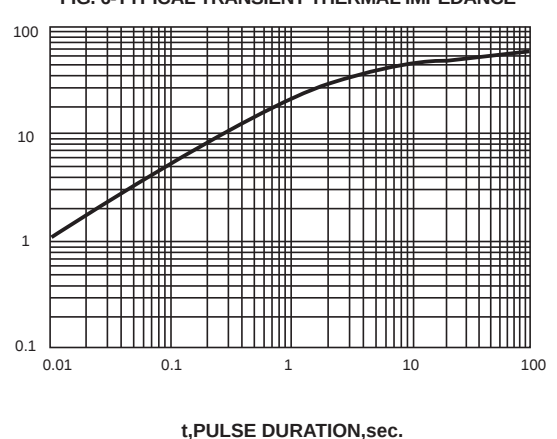


FIG. 5-TYPICAL JUNCTION CAPACITANCE



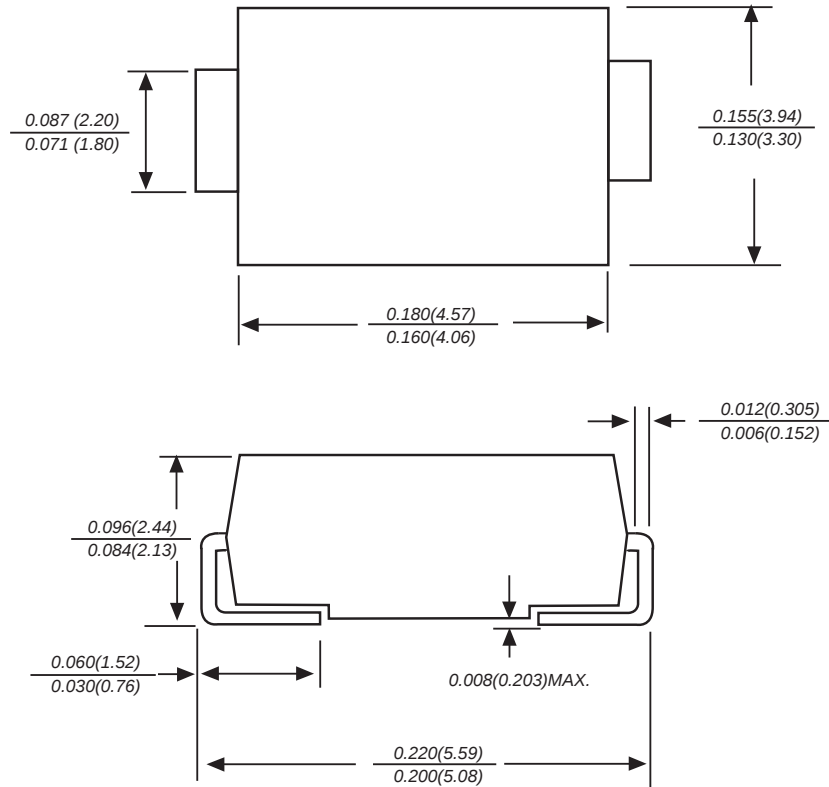
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Dimension

SMB(DO-214AA)



Dimensions in inches and (millimeters)

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