



SS32B THRU SS320B

VOLTAGE RANGE 20 to 200 Volts
CURRENT 3.0 Ampere

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: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead :Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003ounce, 0.093 gram

DO-214AA (SMB J-Bend)

Maximum Ratings and Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

TYPE NUMBER		SYMBOL S	SS 32B	SS 34B	SS 35B	SS 36B	SS 38B	SS 310B	SS 315B	SS 320B	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	20	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage		V _{RMS}	14	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage		V _{DC}	20	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at T _L see figure 1 T _L =100°C		I _(AV)	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	80								Amps
Maximum Instantaneous Forward Voltage @ 3.0A(Note1)		V _F	0.55	0.70		0.85		0.90		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element	T _A = 25°C	I _R	0.1					0.01		mA	
	T _A = 100°C		20.0			10.0		2.0			
Typical Thermal Resistance (Note 2)		R _{θJA}	50								°C/W
		R _{θJL}	12								
Diode junction capacitance (Note 3)		C _J	300	200							pF
Operating Junction Temperature		T _J	(-55 to +150)						(-65 to +175)		°C
Storage Temperature Range		T _{STG}	(-55 to +150)								°C

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle.
2. Thermal resistance from Junction to ambient and from junction to lead mounted on PCB. with 0.3 $\times$ 0.3"(8.0 $\times$ 8.0mm) copper pad areas.
3. f=1MHz and applied 4V DC reverse voltage.



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Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

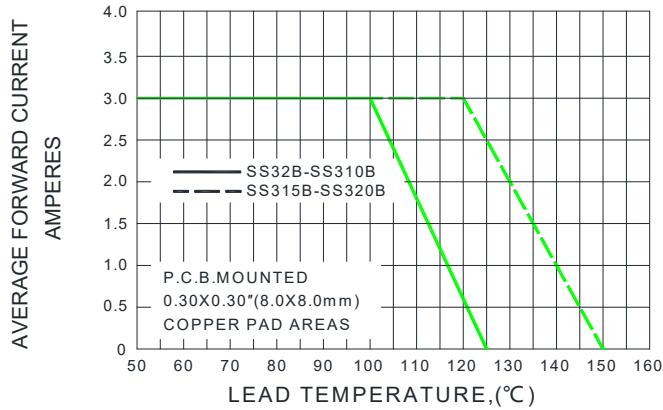
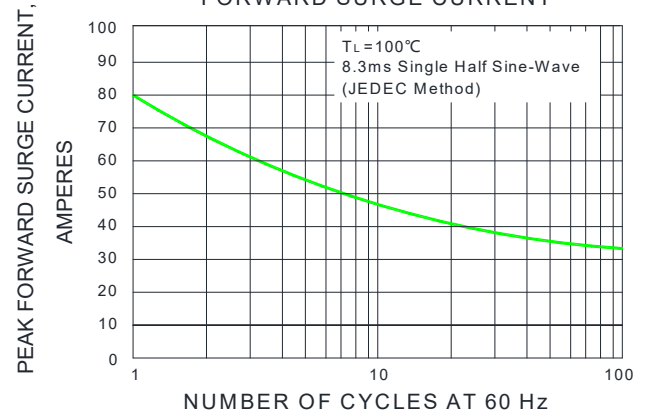
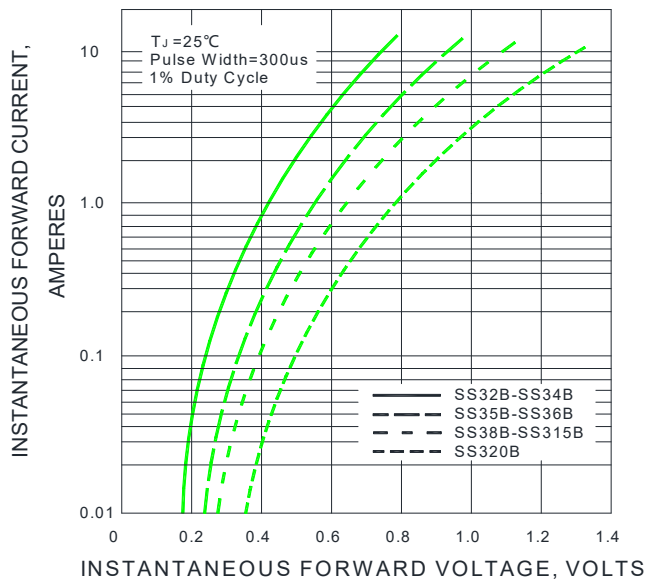
FIG.1-FORWARD CURRENT
DERATING CURVEFIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENTFIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

FIG.4-TYPICAL REVERSE CHARACTERISTICS

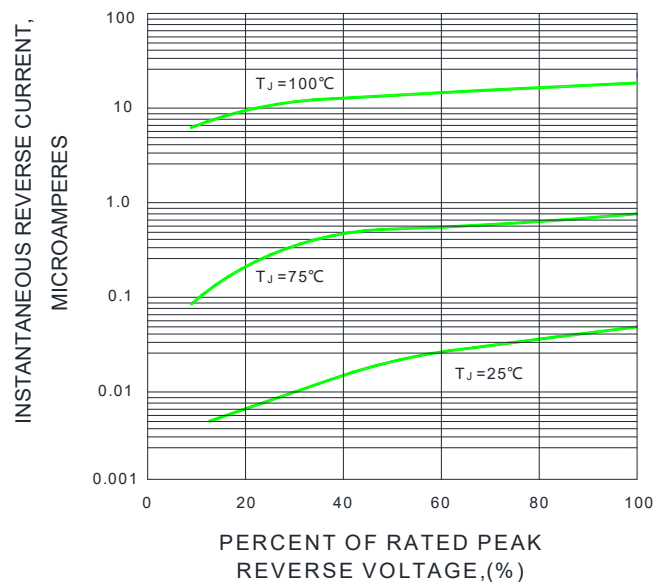
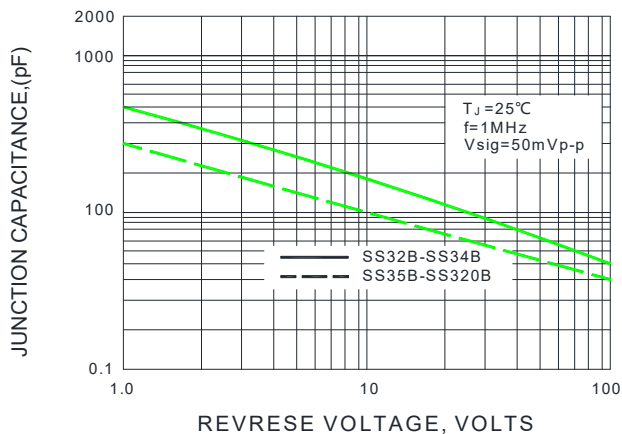


FIG.5-TYPICAL JUNCTION CAPACITANCE

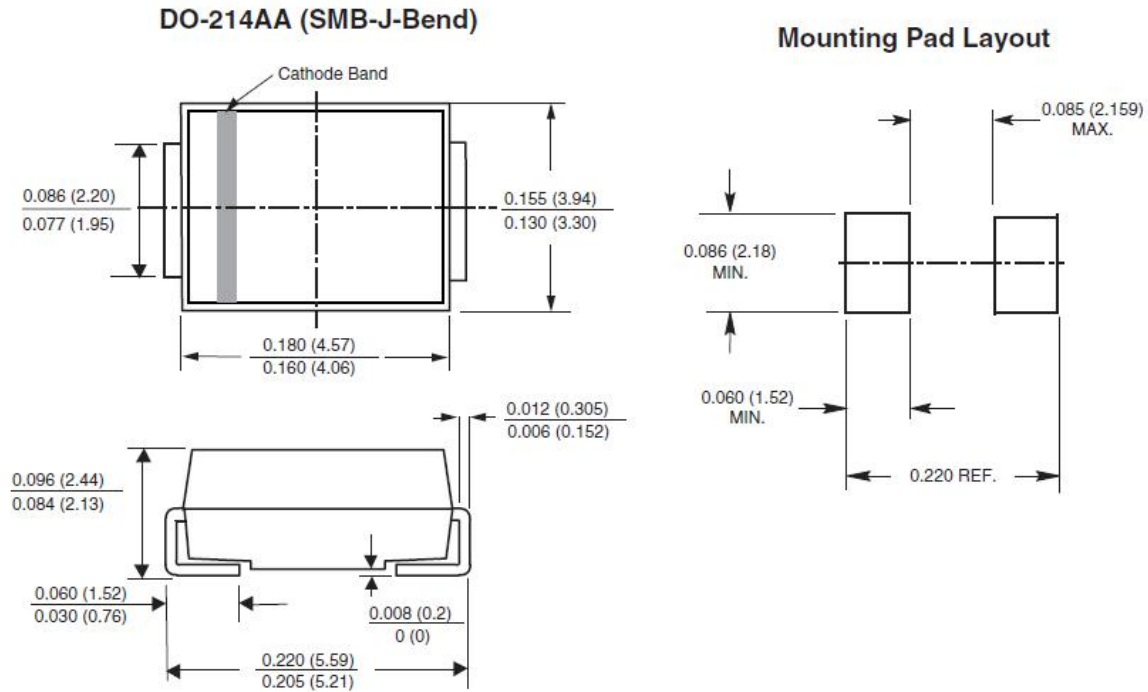




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Package Outline Dimensions in inches (millimeters)



Marking

Type number	Marking code
SS32B	SS320
SS34B	SS340
SS35B	SS350
SS36B	SS360
SS38B	SS380
SS310B	SS3100
SS315B	SS3150
SS320B	SS3200

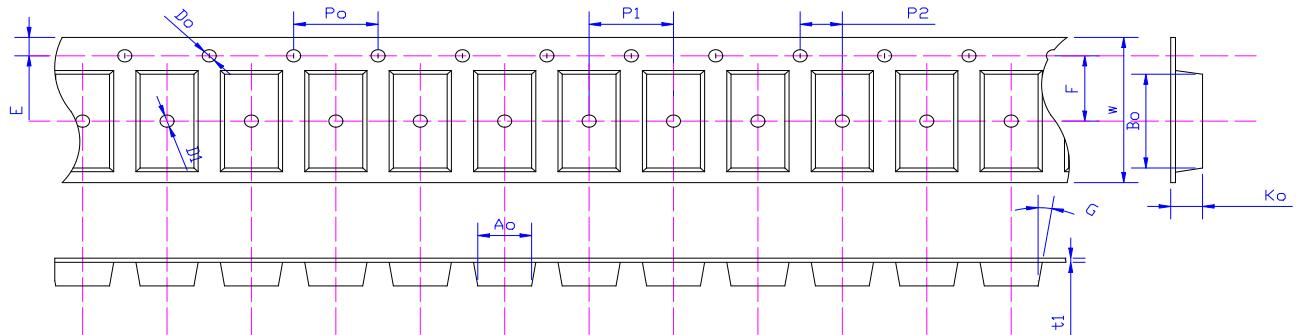


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

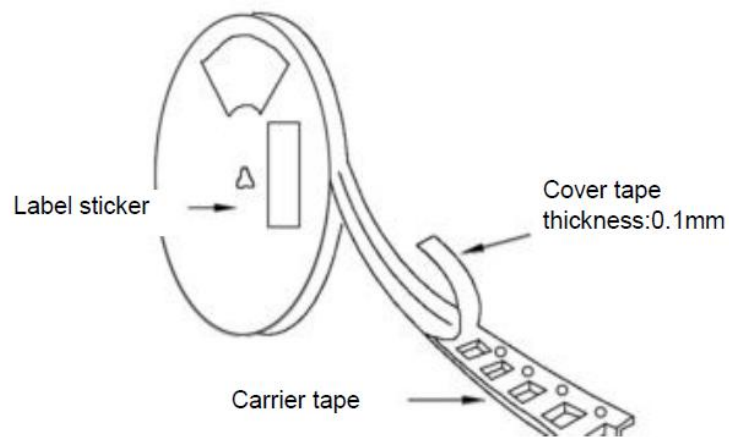
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Package Reel Information



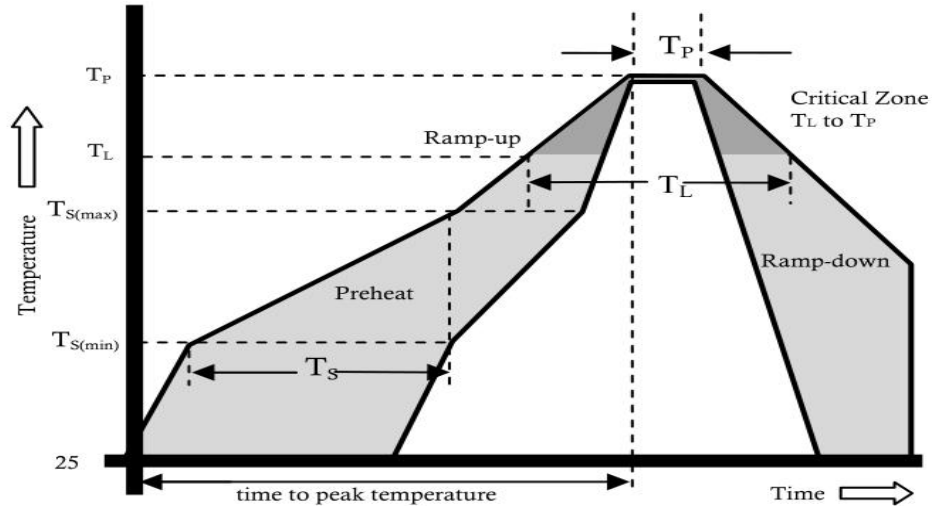
Specifications	Ao	Bo	Ko	Po	W	t1
SMB	3.77±0.10	5.70±0.10	2.67±0.10	4.00±0.1	12.0±0.05	0.23±0.02



DEVICE TYPE	Tape Width	13"Reel			07"Reel			
		Q'TY/REEL(pcs)	BOX/CARTON	Q'TY/CARTON(pcs)	Q'TY/REEL(pcs)	REEL/BOX	BOX/CARTON	Q'TY/CARTON(pcs)
SMB	12mm	3000	8	48000	NA	NA	NA	NA



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp(T_L) to peak)		3°C/sec. Max.
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature (T_L)(Liquidus)	+217°C
	Temperature (T_L)	60-150 secs.
Peak Temp (T_P)		+(260+0/-5)°C
Time within 5°C of actual Peak Temp (T_P)		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T_P)		8 min. Max.
Do not exceed		+260°C