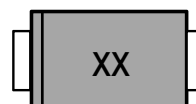


FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automated Insertion
- For General Purpose Switching Applications
- High Reverse Breakdown Voltage

MECHANICAL DATA

- Package: SOD323
- Package Material: Molded Plastic, "Green" Molding Compound.
UL Flammability Classification Rating 94V-0



BAV19WS Marking: A8
BAV20WS Marking: T2
BAV21WS Marking: T3

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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	BAV19WS	BAV20WS	BAV21WS	UNITS
Maximum Recurrent Peak Reverse Voltage	120	200	250	V
Maximum RMS Voltage	100	150	200	V
Maximum DC Blocking Voltage	120	200	250	V
Maximum Average Forward Rectified Current	0.25			A
Peak Forward Surge Current	1.0			A
@ at 1s	3.0			A
@ at 1ms	9.0			A
@ at 1 us	1.25			V
Maximum Instantaneous Forward Voltage at 0.2A	1.25			V
Maximum DC Reverse Current	0.1			μA
at Rated DC Blocking Voltage	Ta=25°C			
Typical Junction Capacitance	3.5			pF
Total Power Dissipation	250			mW
Maximum Reverse Recovery Time	50			ns
Operating Temperature Range T _J	-55 to +150			°C
Storage Temperature Range T _{STG}	-55 to +150			°C

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL Forward Current Derating Curve

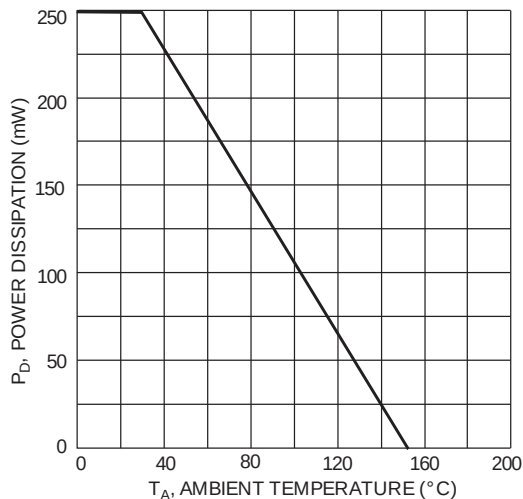


Fig. 2 Typical Forward Characteristics

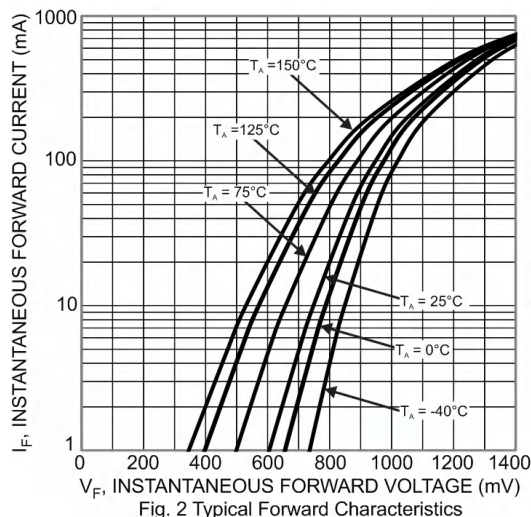


Fig. 3 Typical Reverse Characteristics

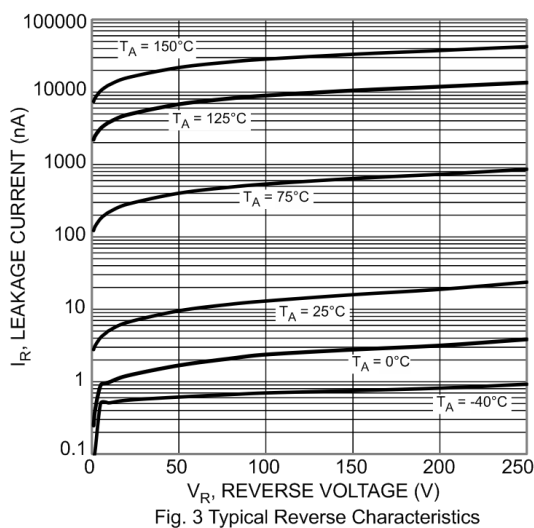


Fig. 4 Total Capacitance vs. Reverse Voltage

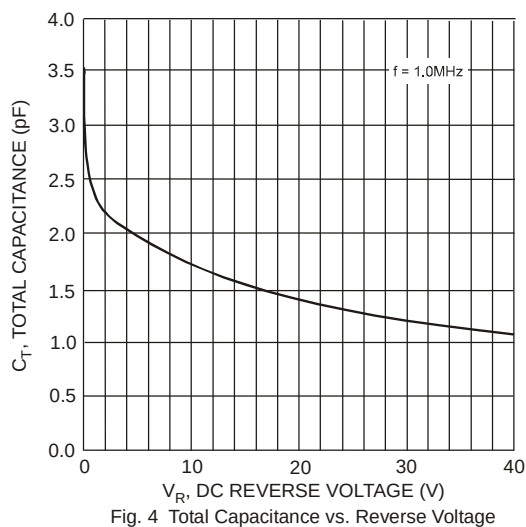
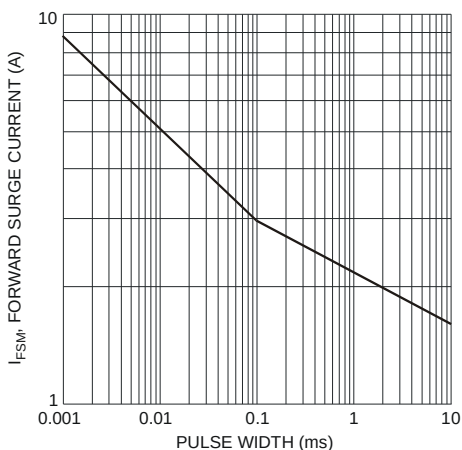
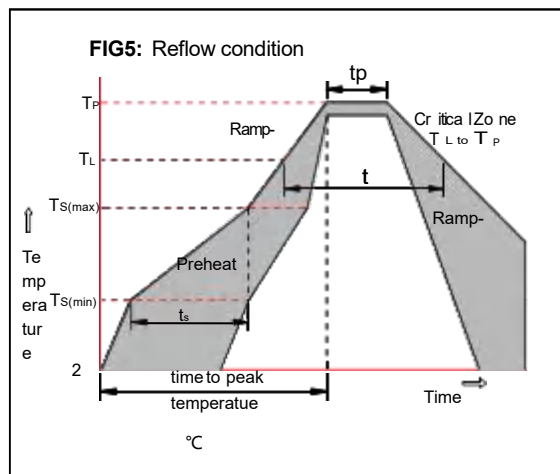


Fig. 5 Maximum Non-Repetitive Surge Currer



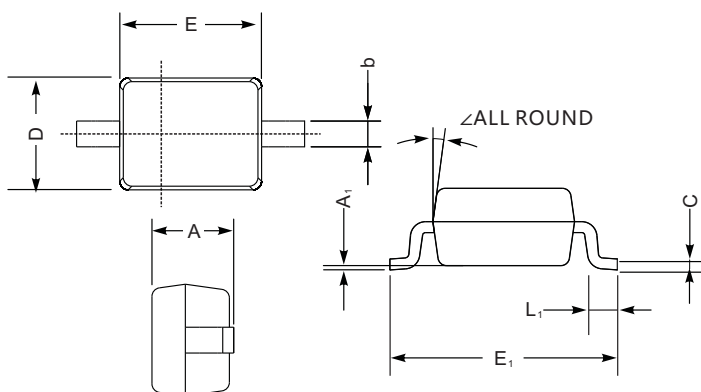
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us 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)(Liquid us)	+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)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C



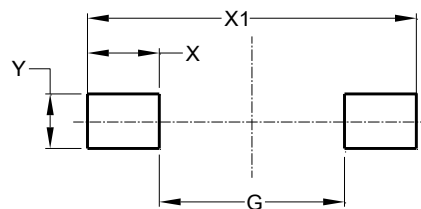
Package Dimensions & Suggested Pad Layout

SOD323



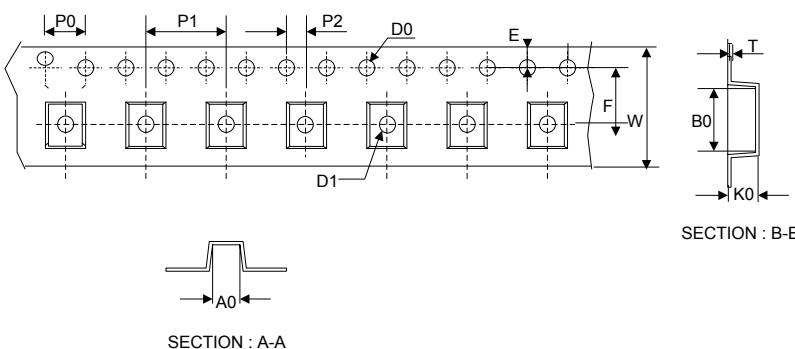
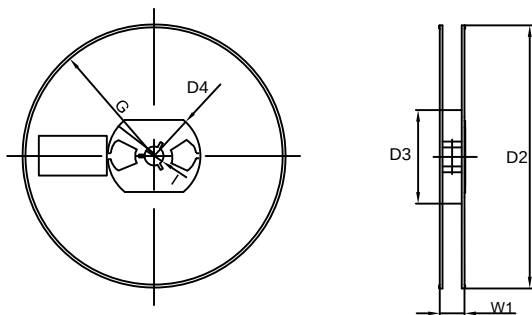
SOD-323 mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	



Dimensions	Value (in mm)
G	1.40
X	1.20
X1	3.80
Y	1.00

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	4.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	1.00±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	2.00±0.20
		B0	3.25±0.20
		K0	1.35±0.20
		T	0.23±0.10
		D2	177.0±5.0
		D3	55Min.
		D4	R24.6±2.0
7" Reel		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	