

FEATURES

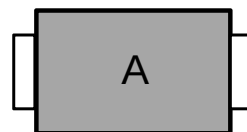
Small surface mounting type
High speed
High reliability with high surge current
handling capability

VOLTAGE RANGE

80 Volts

CURRENT

100 mA



SOD- 323

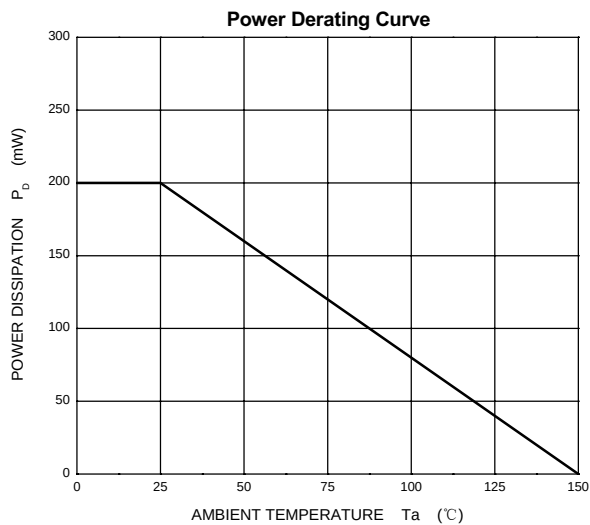
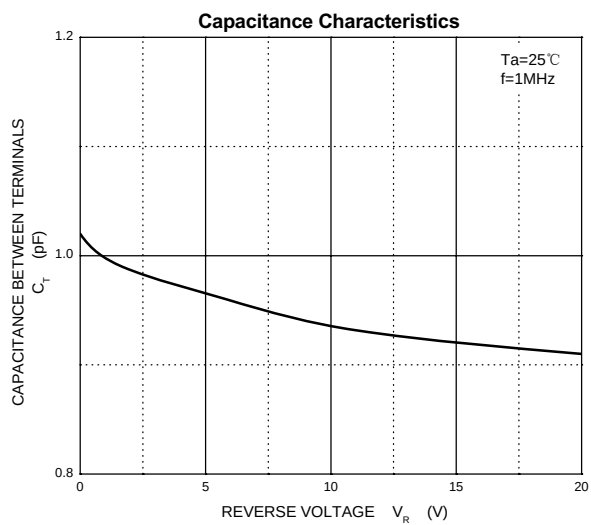
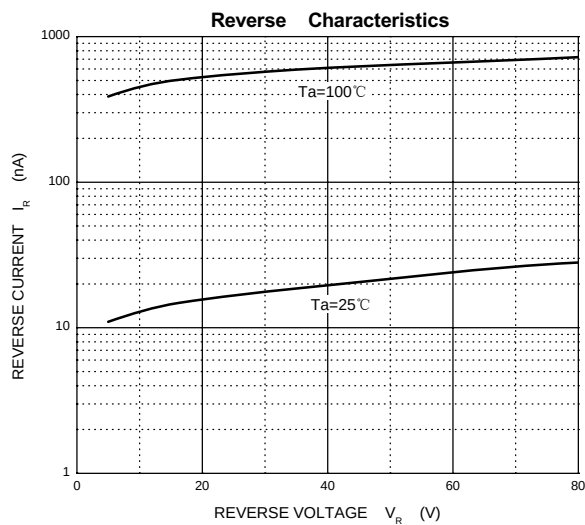
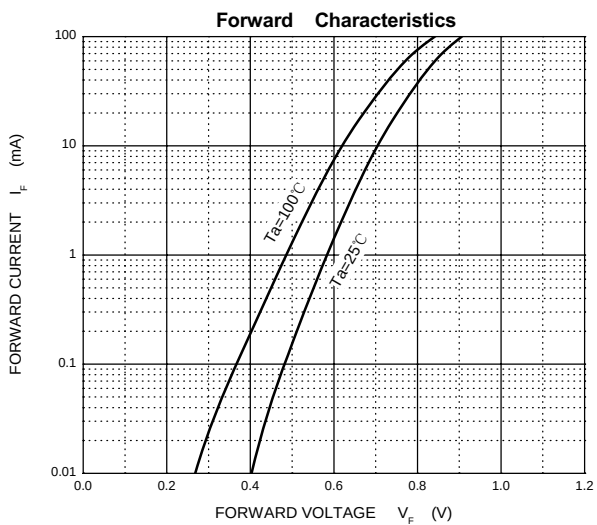
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Limit	Unit
Non-repetitive peak reverse voltage	V_{RM}	90	V
DC blocking voltage	V_R	80	V
Peak forward current	I_{FM}	225	mA
Average rectified output current	I_O	100	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction temperature	T_J	150	$^{\circ}C$
Storage temperature	T_{STG}	-55~+150	$^{\circ}C$

Characteristics at Ta = 25°C

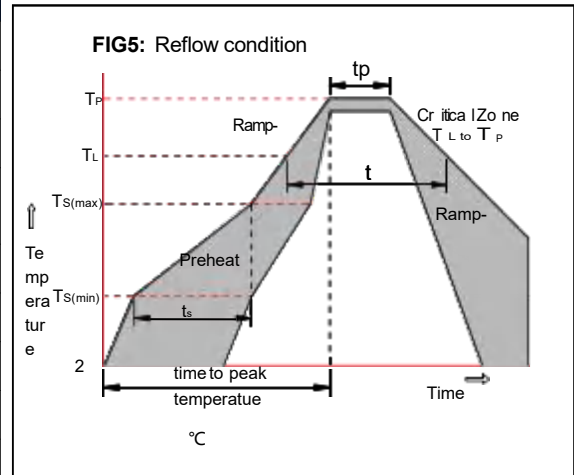
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			1.2	V	$I_F=100\text{mA}$
Reverse current	I_R			0.1	μA	$V_R=80\text{V}$
Capacitance between terminals	C_T			3	pF	$V_R=0.5\text{V}, f=1\text{MHz}$
Reverse recovery time	t_{rr}			4	ns	$I_F=10\text{mA}, V_R=6\text{V}, R_L=100\Omega$

RATING AND CHARACTERISTIC CURVES



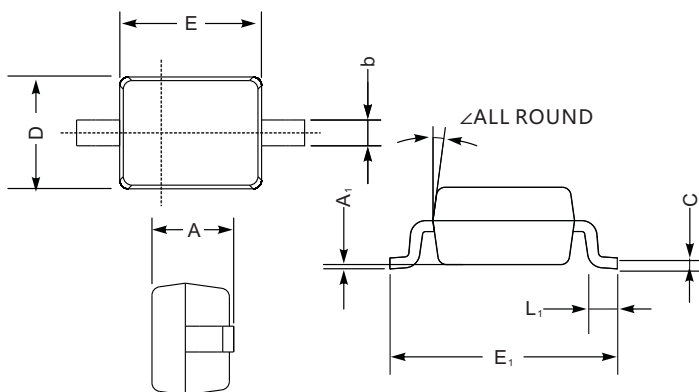
Soldering parameters

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



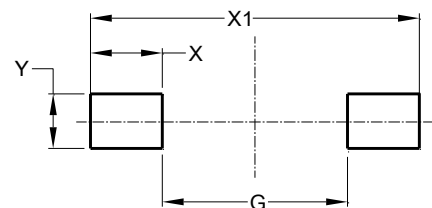
Package Dimensions & Suggested Pad Layout

SOD323



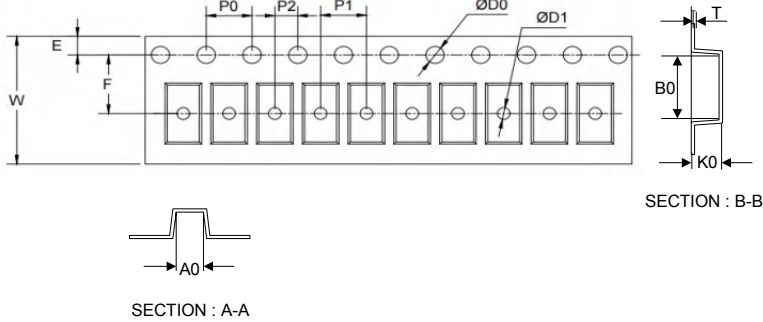
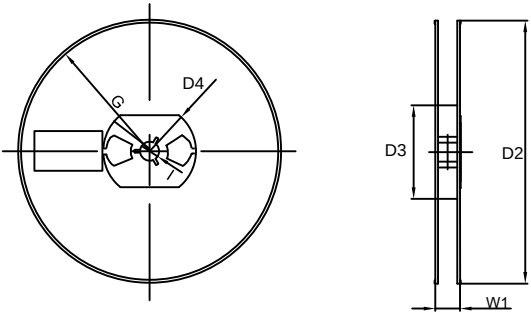
SOD-323 mechanical data

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	