

## FEATURES

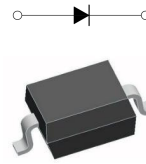
Low current rectifier schottky diode  
Low voltage, low inductance  
For power supply

## VOLTAGE RANGE

45 Volts

## CURRENT

0.1 A



4

SOD-323

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

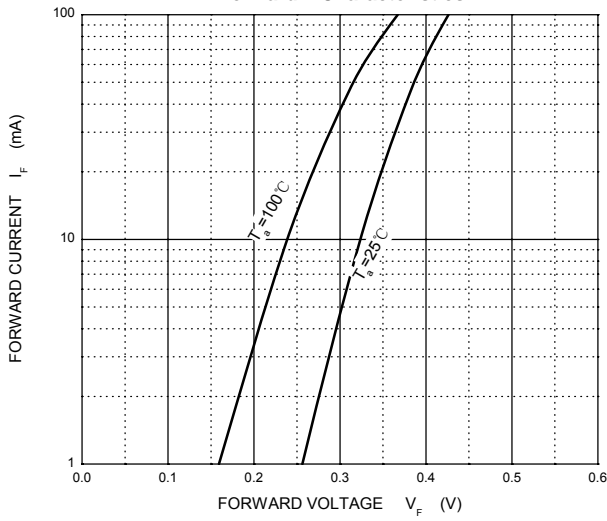
Parameter	Symbol	Limit	Unit
Peak reverse voltage	$V_{RM}$	45	V
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_O$	0.1	A
Peak forward surge current	$I_{FSM}$	1	A
Power dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}C/W$
Junction temperature	$T_j$	-40 ~ +125	$^{\circ}C$
Storage temperature	$T_{stg}$	-55~+150	$^{\circ}C$

### Electrical Ratings @Ta=25°C

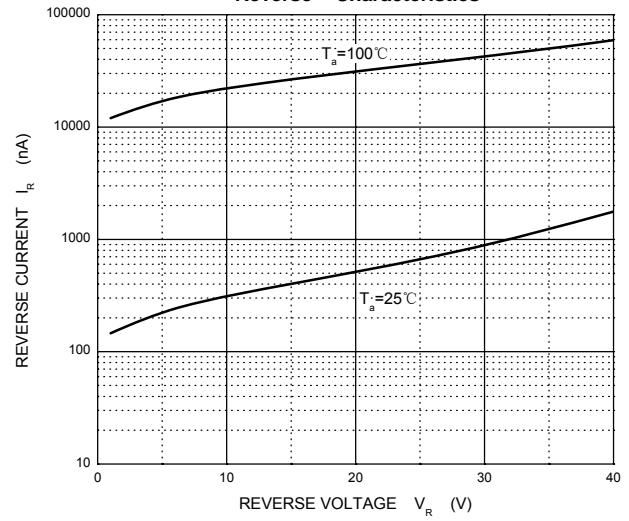
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	$V_F$			0.55 0.34	V	$I_F=100mA$ $I_F=10mA$
Reverse current	$I_R$			30	$\mu A$	$V_R=10V$
Capacitance between terminals	$C_T$		6		pF	$V_R=10V, f=1MHZ$

RATING AND CHARACTERISTIC CURVES

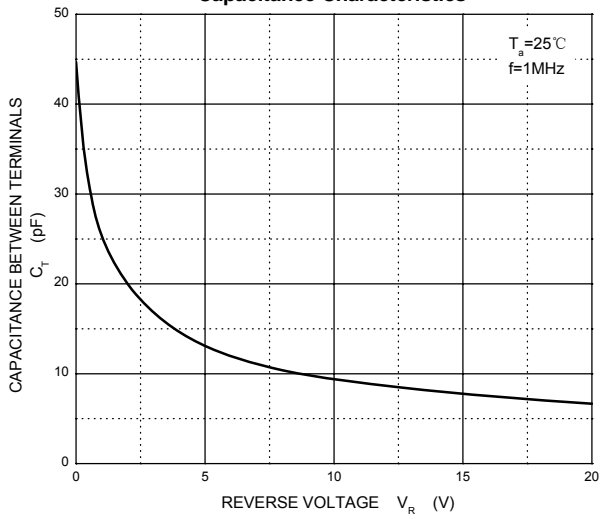
**Forward Characteristics**



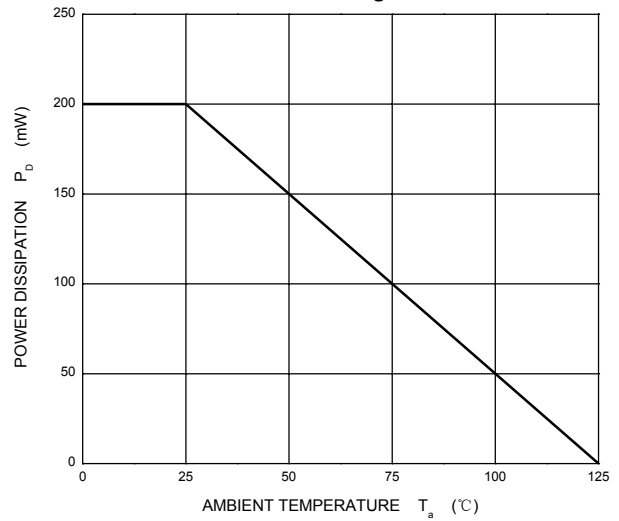
**Reverse Characteristics**



**Capacitance Characteristics**



**Power Derating Curve**



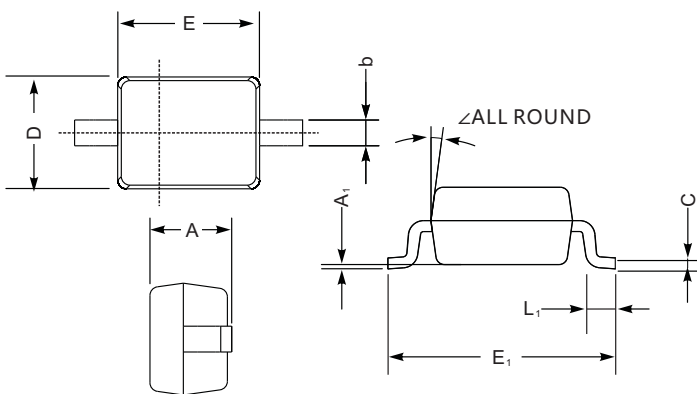
Soldering parameters

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



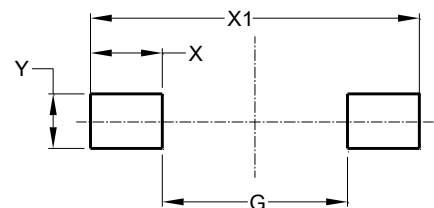
Package Dimensions & Suggested Pad Layout

SOD323



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
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)
<b>G</b>	1.40
<b>X</b>	1.20
<b>X1</b>	3.80
<b>Y</b>	1.00

Tape & reel specification

Tape		Symbol	Dimension (mm)		
<p>SECTION : A-A</p> <p>SECTION : B-B</p>		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		
		7" Reel		D2	177.0±5.0
				D3	55Min.
				D4	R24.6±2.0
G	R82.0±2.0				
I	13.0±2.0				
W1	10.20±3.0				
		Quantity: 3000PCS			