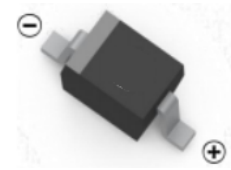
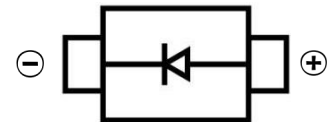


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Low Forward Voltage
- Fast Switching
- Low Capacitance
- PN Junction Guard Ring for Transient and ESD Protection


**SOD-323**

**MECHANICAL DATA**

- Case: SOD-323
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.005 grams (approximate)

**MARKING:**
**SD103AWS:S4**
**SD103BWS:S5**
**SD103CWS:S6**
**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

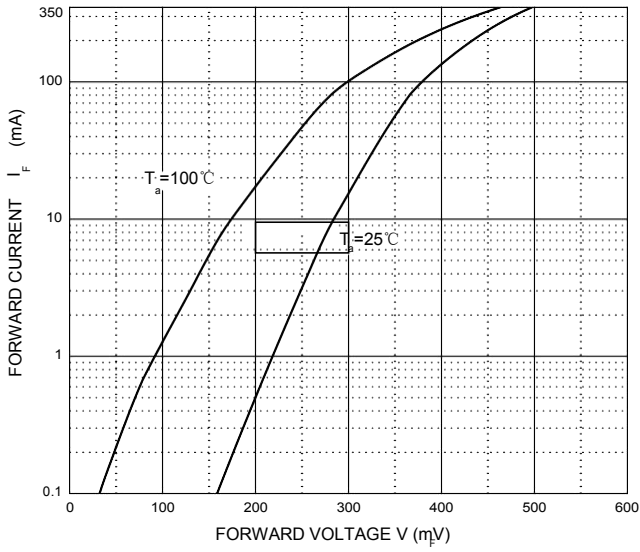
Parameter	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	40	30	20	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	21	14	V
Forward Continuous Current	I <sub>FM</sub>	350			mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2.0			A
Power Dissipation	P <sub>d</sub>	200			mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	500			°C/W
Junction Temperature	T <sub>j</sub>	125			°C
Storage Temperature	T <sub>STG</sub>	-55~+150			°C

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

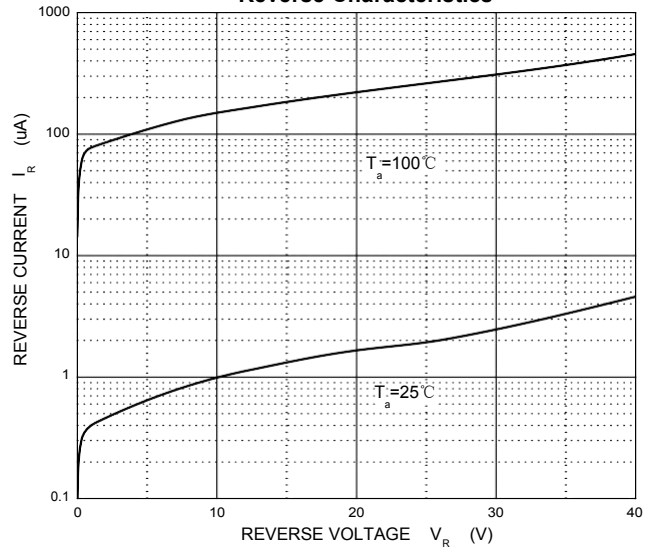
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V <sub>(BR)</sub>	40			V	I <sub>R</sub> =100μA
SD103AWS		30				I <sub>R</sub> =100μA
SD103BWS		20				I <sub>R</sub> =100μA
Forward voltage	V <sub>F</sub>			0.37 0.60	V	I <sub>F</sub> =20mA I <sub>F</sub> =200mA
Reverse current	I <sub>RM</sub>			5.0		μA
SD103AWS						
SD103BWS						
Capacitance between terminals	C <sub>T</sub>			50	pF	V <sub>R</sub> =0V, f=1.0MHz
Reverse recovery time	t <sub>rr</sub>		10		ns	I <sub>F</sub> =I <sub>R</sub> =200mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

SCHOTTKY BARRIER DIODE

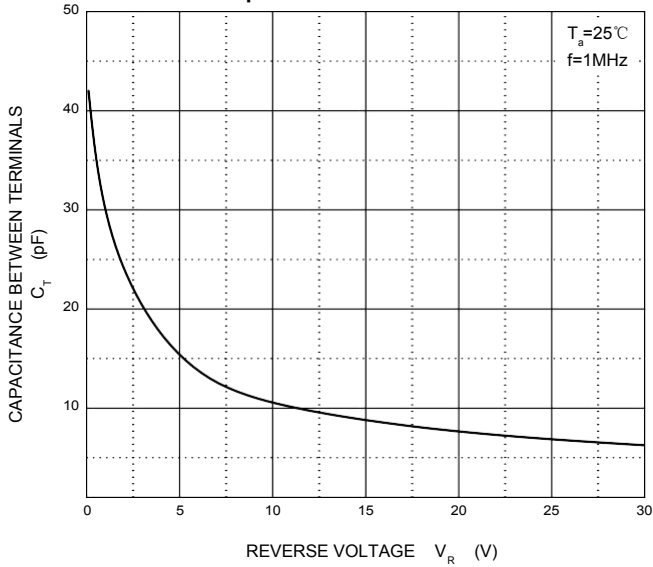
**Forward Characteristics**



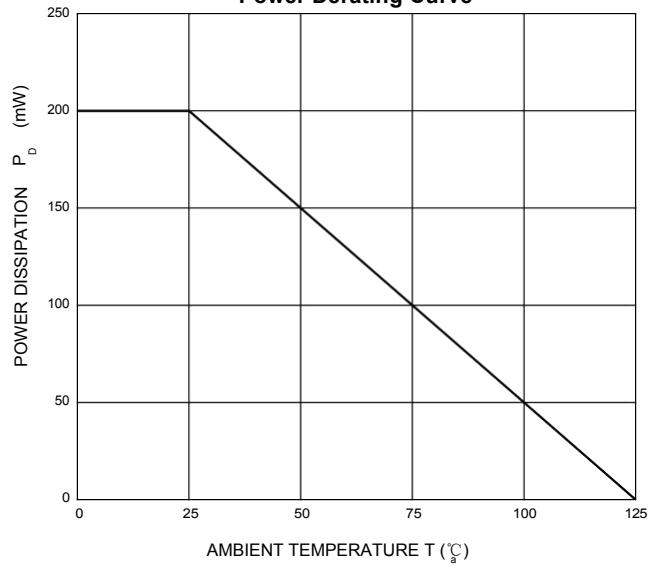
**Reverse Characteristics**



**Capacitance Characteristics**

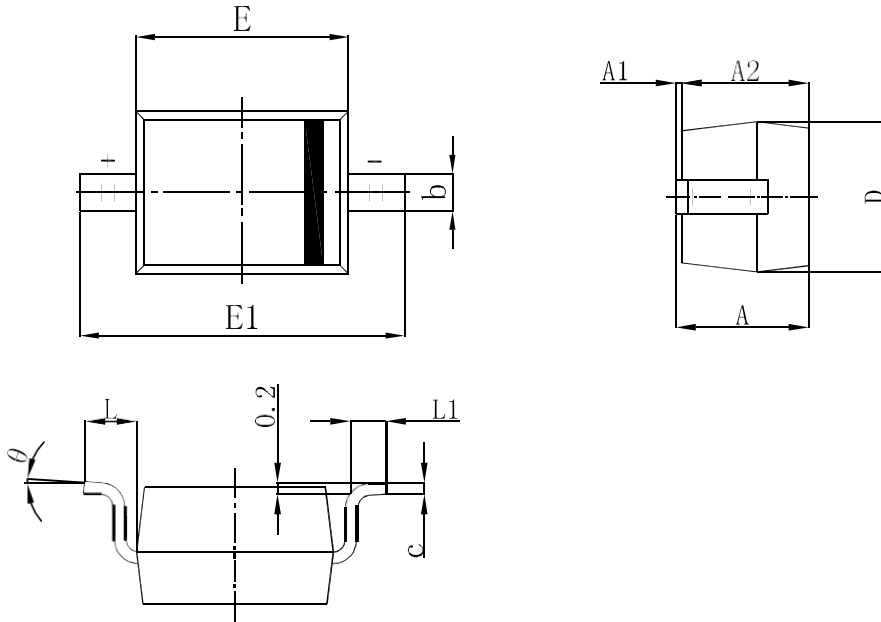


**Power Derating Curve**



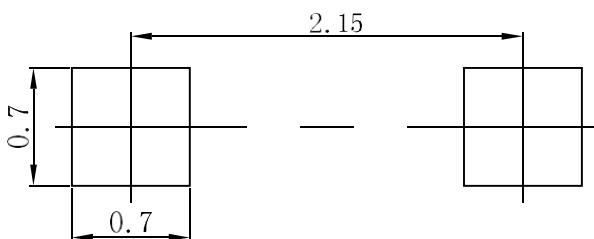
SCHOTTKY BARRIER DIODE

**SOD-323 Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

**SOD-323 Suggested Pad Layout**



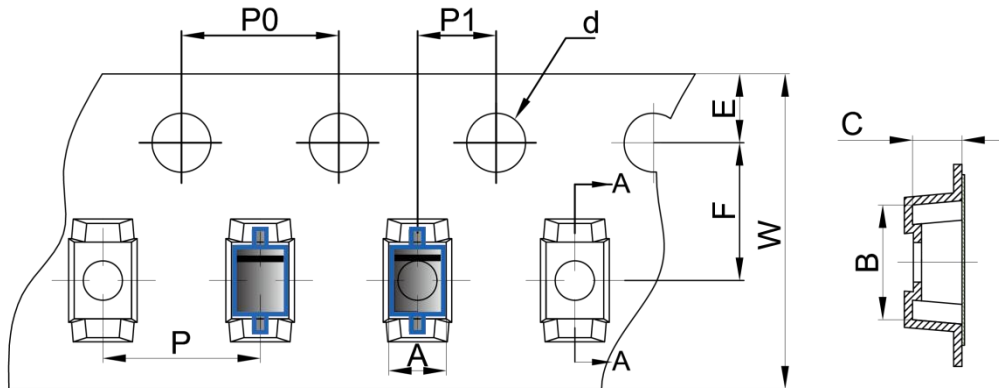
**Note:**

1. Controlling dimension: in millimeters
2. General tolerance: ±0.05mm
3. The pad layout is for reference purposes only

SCHOTTKY BARRIER DIODE

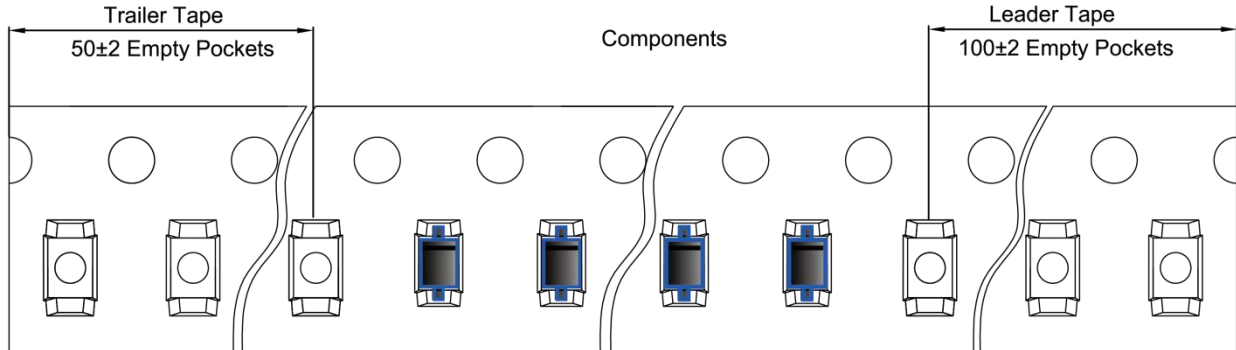
### SOD-323 Tape and Reel

#### SOD-323 Embossed Carrier Tape

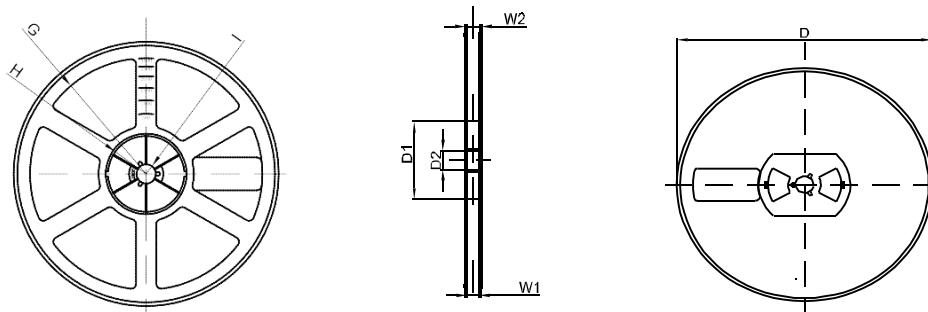


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.30	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

#### SOD-323 Tape Leader and Trailer



#### SOD-323 Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1