

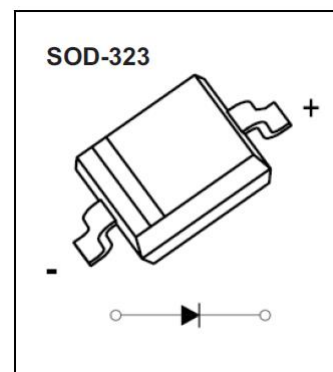


AD-BAT54WS Plastic-Encapsulated Diode

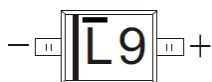
AD-BAT54WS Schottky barrier diode

FEATURES

- Extremely high switching speed
- Low forward voltage
- AEC-Q101 qualified



MARKING



L9 = Device code

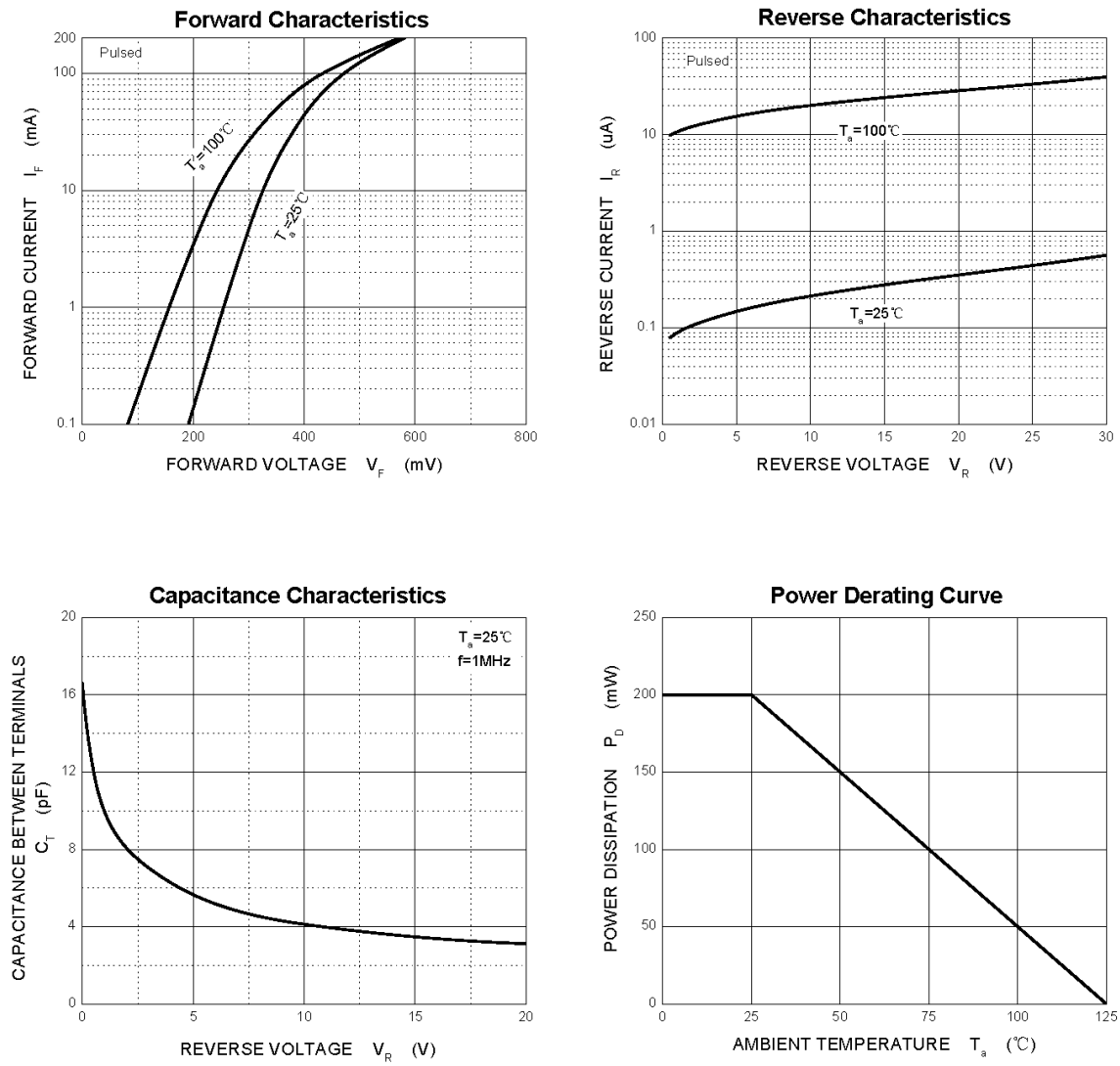
The marking bar indicates the cathode

MAXIMUM RATINGS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

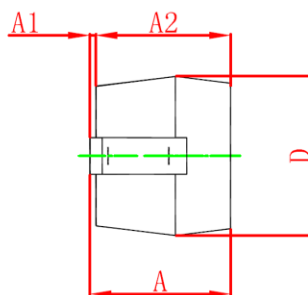
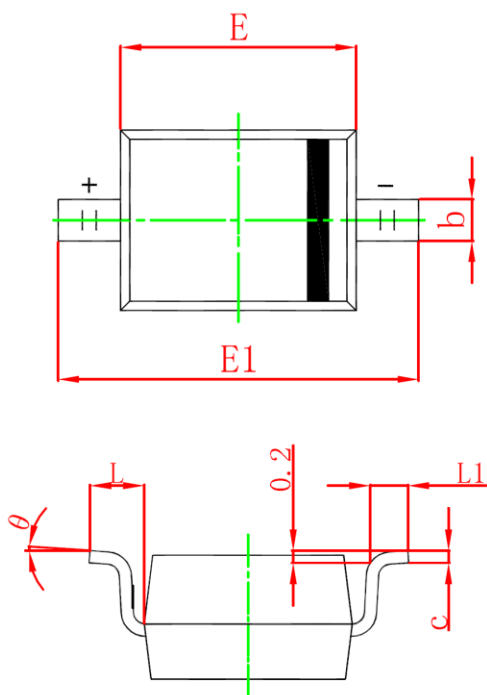
Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	30	V
DC block voltage	V_R	21	V
Average rectified output current	I_O	100	mA
Continuous forward current	I_F	200	mA
Repetitive peak forward current @ $t_p < 1.0\text{s}$, duty cycle $< 50\%$	I_{FRM}	350	mA
Non-repetitive peak forward surge current @ $t = 8.3\text{ms}$	I_{FSM}	750	mA
Power dissipation	P_D	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating junction temperature range	T_j	$-40 \sim 125$	$^\circ\text{C}$
Storage temperature range	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	30	-	-	V
Reverse voltage leakage current	I_R	$V_R = 25\text{V}$	-	-	2.0	μA
Forward voltage	V_{F1}	$I_F = 0.1\text{mA}$	-	-	240	mV
	V_{F2}	$I_F = 1\text{mA}$	-	-	320	
	V_{F3}	$I_F = 10\text{mA}$	-	-	400	
	V_{F4}	$I_F = 30\text{mA}$	-	-	500	
	V_{F5}	$I_F = 100\text{mA}$	-	-	1000	
Reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}$, $I_{rr} = 1\text{mA}$, $R_L = 100\Omega$	-	-	5.0	ns
Capacitance between terminals	C_T	$V_R = 1\text{V}$, $f = 1\text{MHz}$	-	-	10	pF

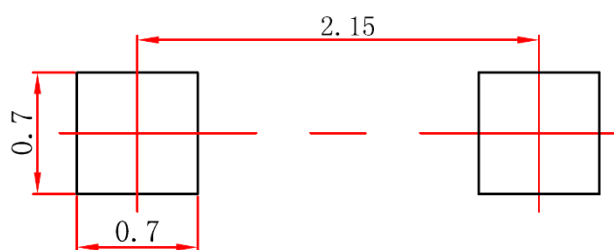


SOD-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 SUGGESTED PAD LAYOUT

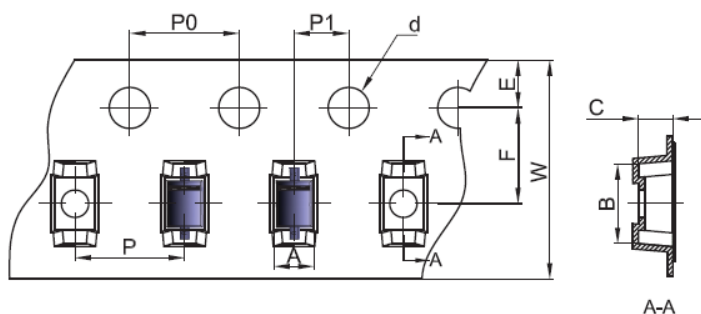


Note:

1. Controlling dimension in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purpose only.

SOD-323 TAPE AND REEL

SOD-323 Embossed Carrier Tape



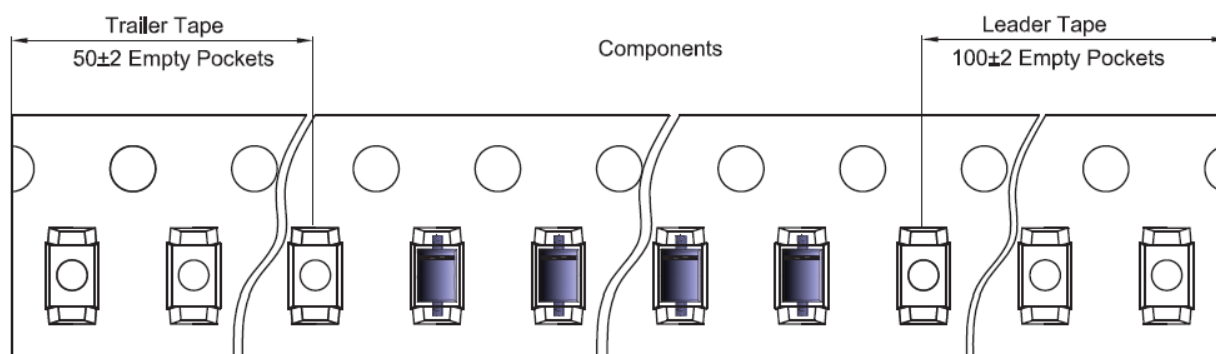
Packaging Description:

SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17,8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

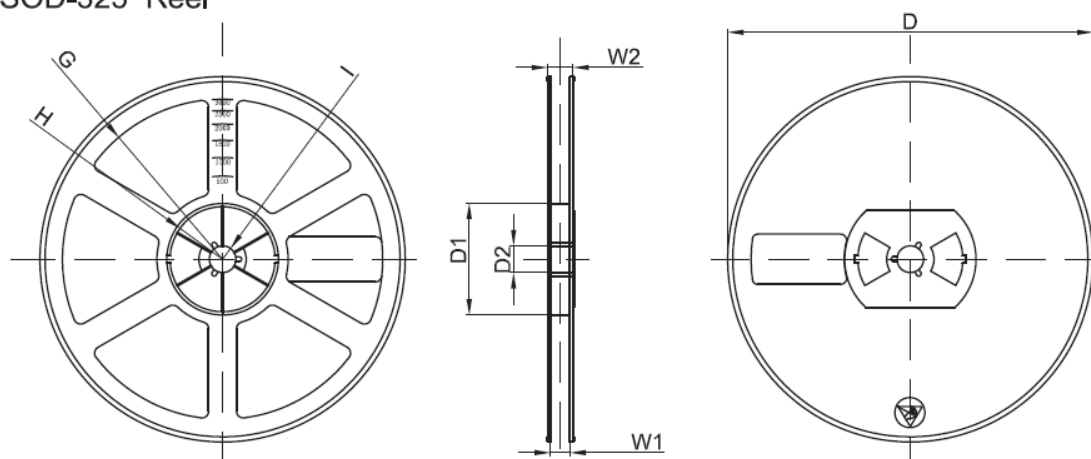
Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

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	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	

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