

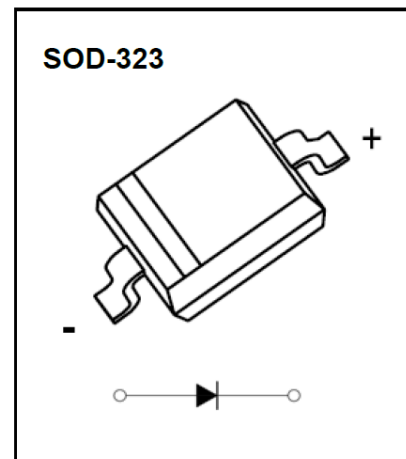


AD-SD106WS Plastic-Encapsulated Diode

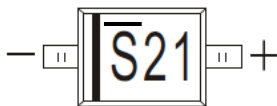
AD-SD106WS Schottky barrier diode

FEATURES

- Microminiature plastic package
- Low voltage
- Fast switching
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge
- Ideal for protection of MOS devices, steering, biasing, and coupling diodes for fast switching and low logic level applications
- AEC-Q101 qualified



MARKING



S̄21 = Device code

The marking bar indicates the cathode

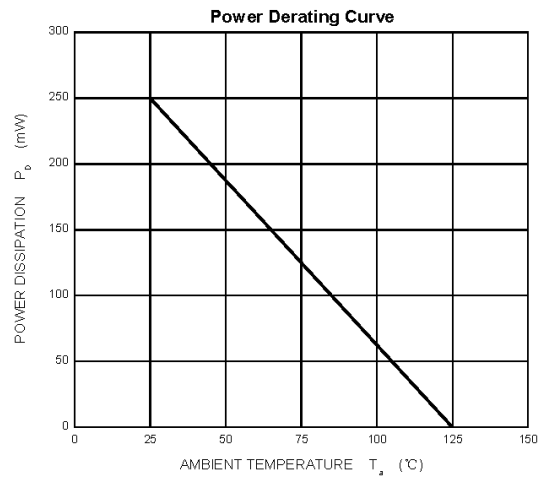
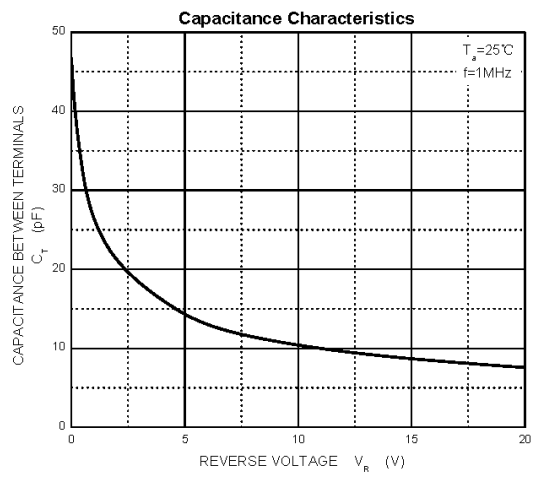
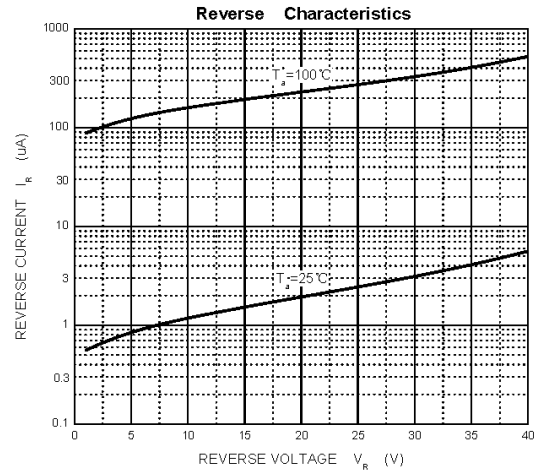
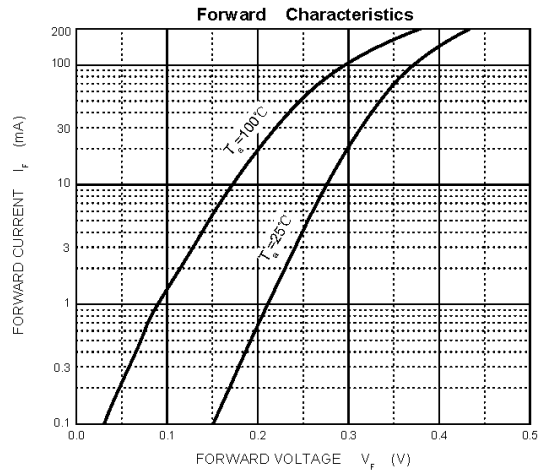
MAXIMUM RATINGS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	30	V
Forward current	I_{FM}	0.2	A
Non-repetitive peak forward surge current @ $t = 8.3\text{ms}$	I_{FSM}	1	A
Power dissipation	P_{tot}	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	400	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_j	-40 ~ 125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

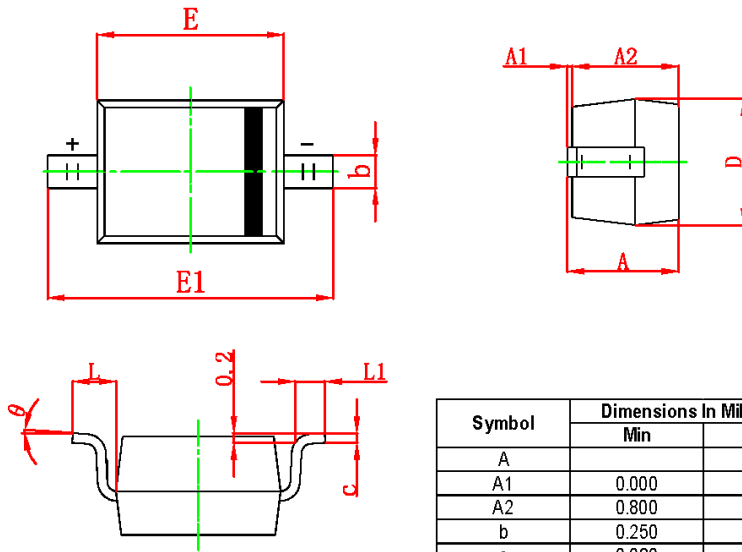
ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 100\mu\text{A}$	30			V
Forward voltage	V_F	$I_F = 2\text{mA}$		260		mV
		$I_F = 15\text{mA}$		320		
		$I_F = 100\text{mA}$		420		
		$I_F = 200\text{mA}$		490	550	
Reverse current	I_R	$V_R = 30\text{V}$			5	μA
Capacitance between terminals	C_T	$V_R = 10\text{V}, f = 1\text{MHz}$			15	pF

TYPICAL CHARACTERISTICS

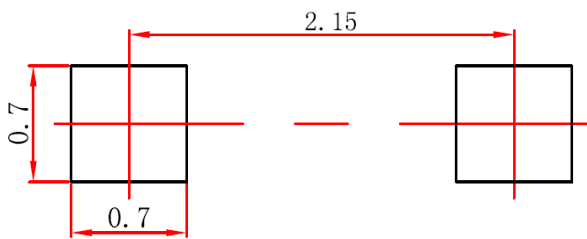


SOD-323 PACKAGE OUTLINE DIMENSIONS



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

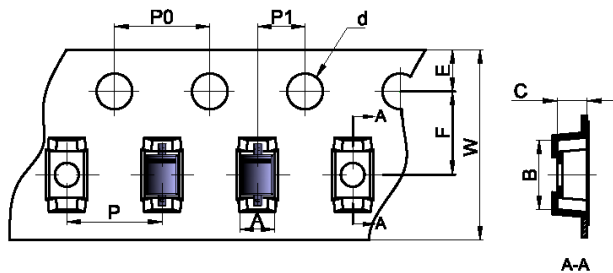


Note:

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

SOD-323 TAPE AND REEL

SOD-323 Embossed Carrier Tape

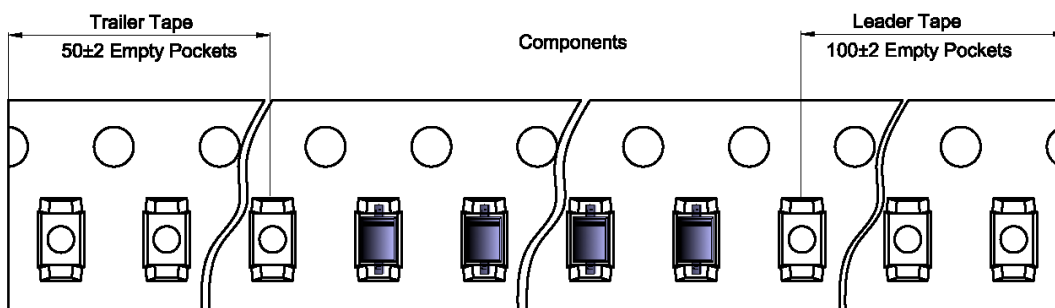


Packaging Description:

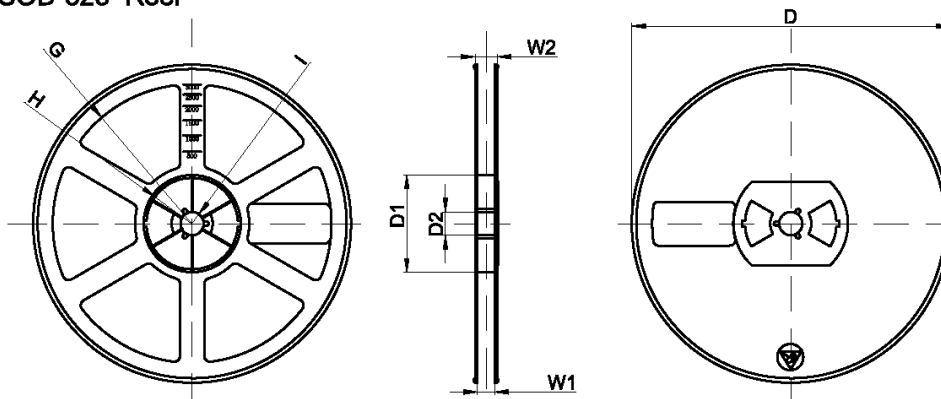
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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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