



AD-B1040WS Plastic-Encapsulated Diode

AD-B1040WS Schottky barrier diode

FEATURES

- Small surface mounting type
- Low forward voltage
- AEC-Q101 qualified

APPLICATIONS

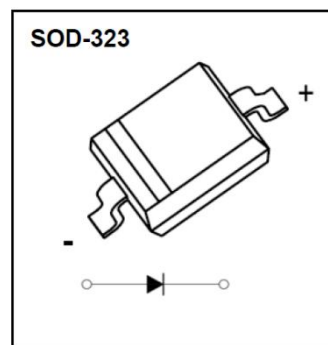
- Low voltage rectification
- High efficiency DC/DC conversion
- Switch mode power supply
- Inverse polarity protection
- Low power consumption applications

MARKING



$\bar{S}Z$ = Device code

The marking bar indicates the cathode



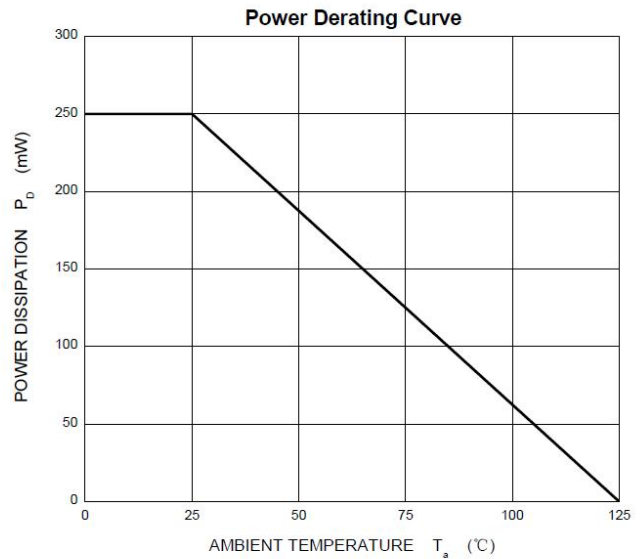
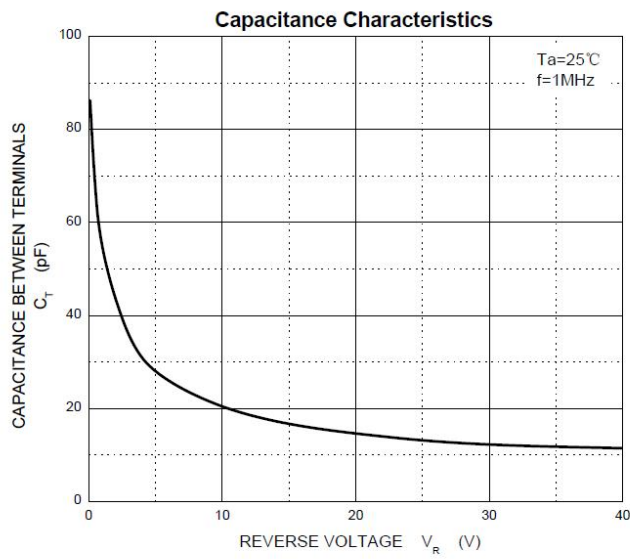
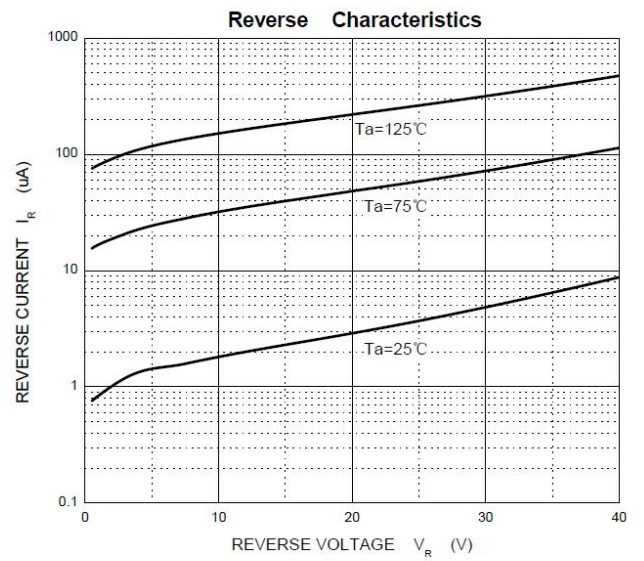
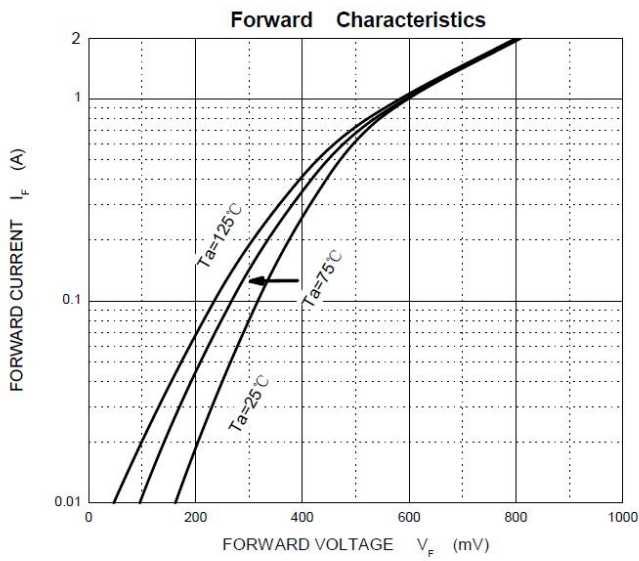
MAXIMUM RATINGS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}	40	V
RMS reverse voltage	$V_{R(RMS)}$	28	V
Forward current	I_O	1	A
Non-repetitive peak forward surge current @ $t = 8.3\text{ms}$	I_{FSM}	5	A
Power dissipation	P_D	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	400	$^\circ\text{C/W}$
Operating junction temperature range	T_j	-40 ~ 125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

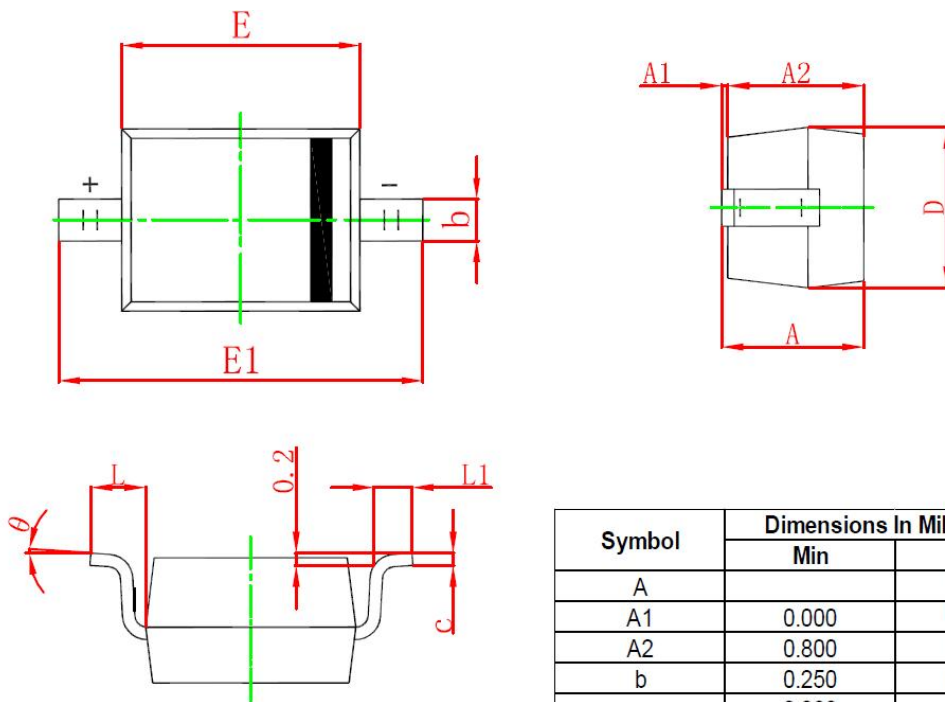
ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 1\text{mA}$	40			V
Forward voltage	V_F	$I_F = 0.5\text{A}$	-	-	0.51	V
		$I_F = 0.7\text{A}$			0.55	
Reverse current	I_R	$V_R = 20\text{V}$	-	-	50	μA
Total capacitance	C_{tot}	$V_R = 10\text{V}, f = 1\text{MHz}$			20	pF

TYPICAL CHARACTERISTICS

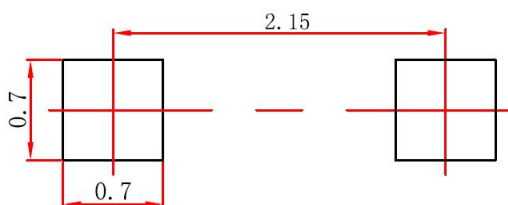


SOD-323 PACKAGE OUTLINE DIMENSIONS



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

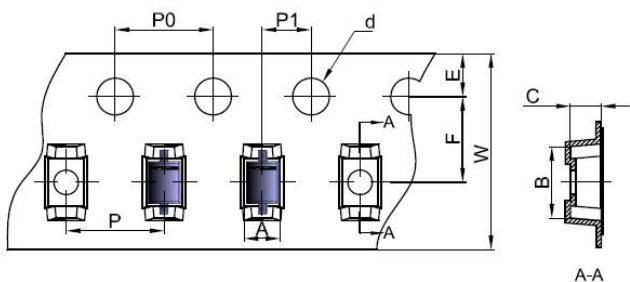


Note:

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

SOD-323 TAPE AND REEL

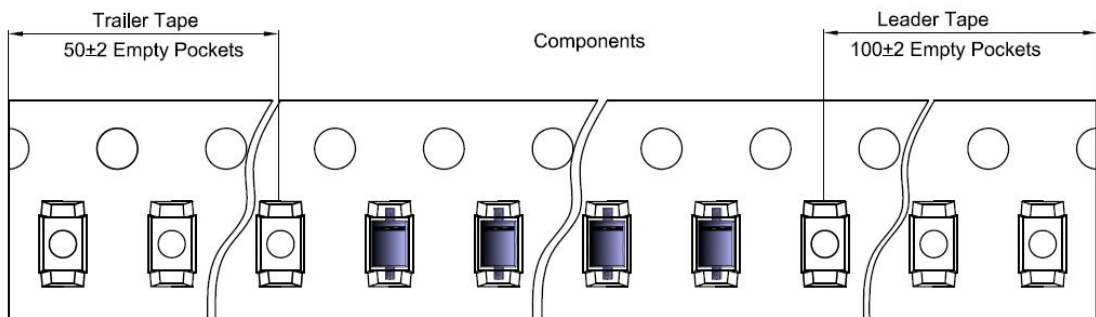
SOD-323 Embossed Carrier Tape



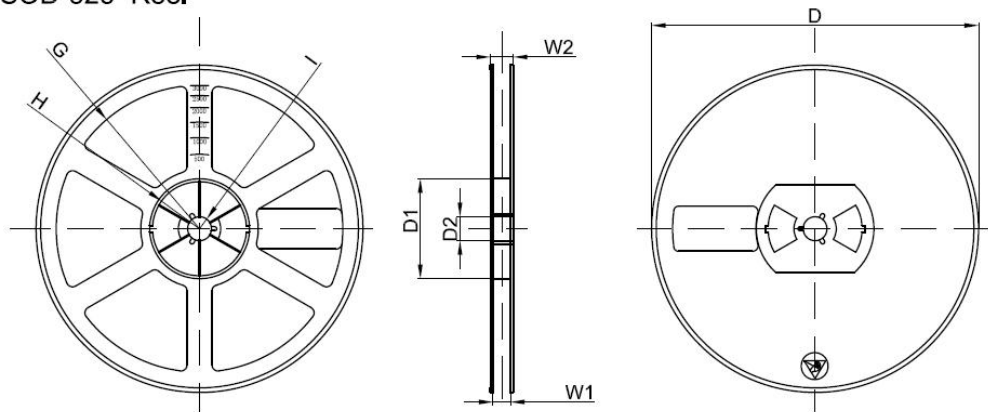
Packaging Description:
 SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive In nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent.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