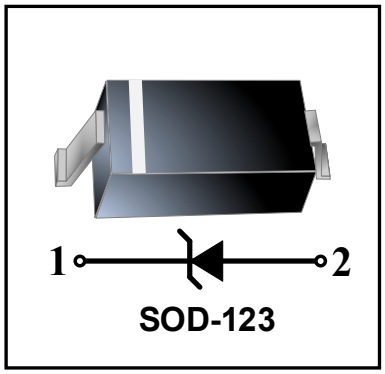
WZ5BXXXD1

ZENER DIODE

Features

- Constant Voltage Control
- Planar Die Construction
- Zener Voltages From 2.4V-75V



Mechanical Characteristics

- SOD-123 Package
- Marking : Refer to Table List
- RoHS Compliant & HF
- Device meets MSL3 requirement

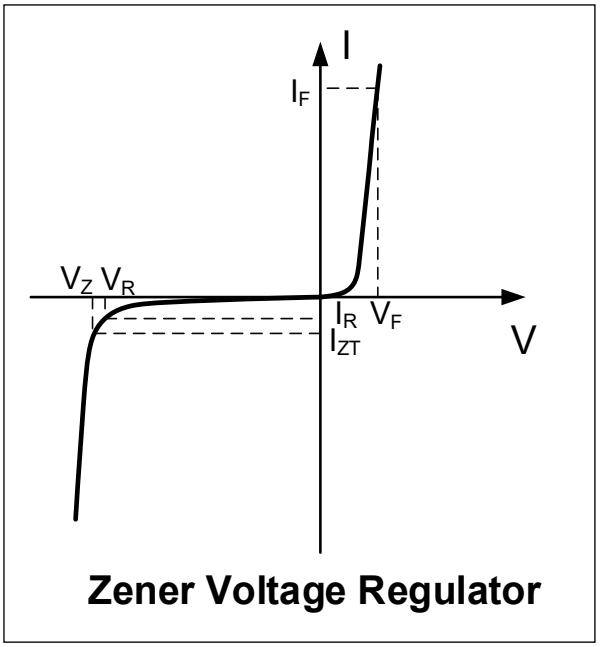
Absolute Maximum Rating (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Forward Voltage @ I_F = 10mA	V_F	0.9	V
Power Dissipation	P_D	500	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C/W
Junction Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

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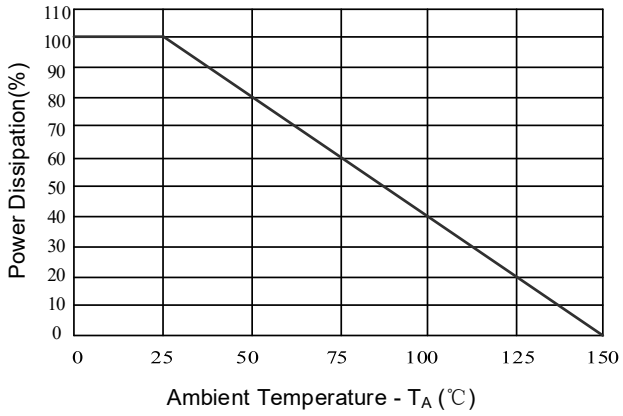
Electrical Parameters (T_a=25℃)

Symbol	Parameter
I_{ZT}	Reverse Current
V_Z	Reverse Zener Voltage @ I_{ZT}
V_R	Reverse Voltage
I_R	Reverse Leakage Current @ V_R
I_F	Forward Current
V_F	Forward Voltage @ I_F



Typical Characteristics

Figure 1: Power Derating Curve



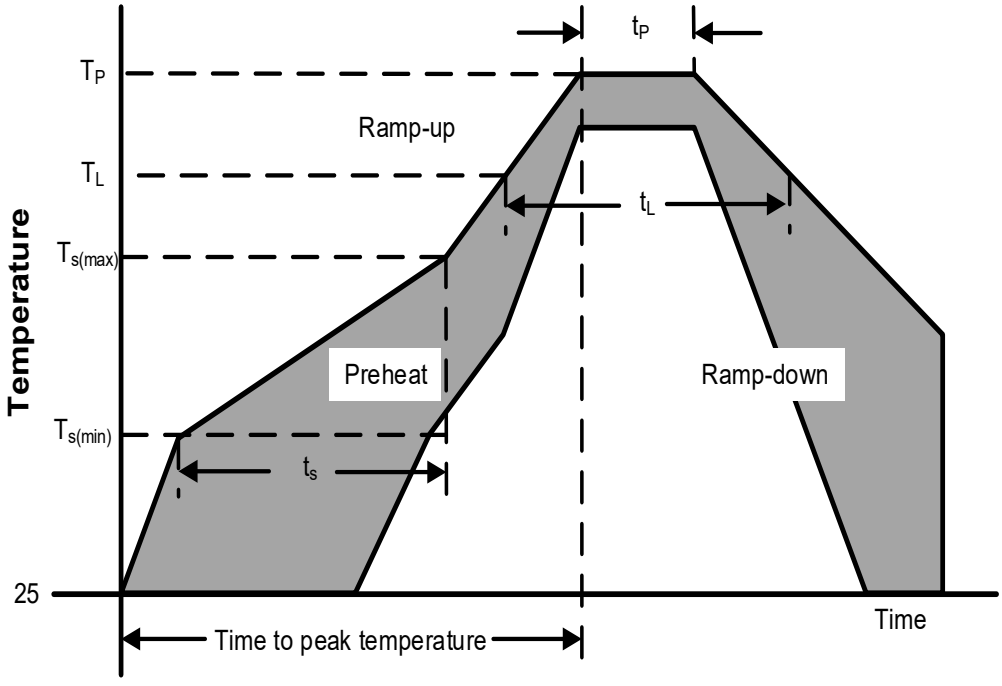
Electrical Characteristics

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
WZ5B2V4D1	2WX	2.4	2.35	2.45	5	100	600	1	50	1
WZ5B2V7D1	2W1	2.7	2.65	2.75	5	100	600	1	20	1
WZ5B3V0D1	2W2	3	2.94	3.06	5	95	600	1	10	1
WZ5B3V3D1	2W3	3.3	3.23	3.37	5	95	600	1	5	1
WZ5B3V6D1	2W4	3.6	3.53	3.67	5	90	600	1	5	1
WZ5B3V9D1	2W5	3.9	3.82	3.98	5	90	600	1	3	1
WZ5B4V3D1	2W6	4.3	4.21	4.39	5	90	600	1	3	1
WZ5B4V7D1	2W7	4.7	4.6	4.8	5	80	500	1	3	2
WZ5B5V1D1	2W8	5.1	4.99	5.21	5	60	480	1	2	2
WZ5B5V6D1	2W9	5.6	5.48	5.72	5	40	400	1	1	2
WZ5B6V2D1	2WA	6.2	6.07	6.33	5	10	150	1	3	4
WZ5B6V8D1	2WB	6.8	6.66	6.94	5	15	80	1	2	4
WZ5B7V5D1	2WC	7.5	7.35	7.65	5	15	80	1	1	5
WZ5B8V2D1	2WD	8.2	8.03	8.37	5	15	80	1	0.7	5
WZ5B9V1D1	2WE	9.1	8.91	9.29	5	15	100	1	0.5	6
WZ5B10VD1	2WF	10	9.8	10.2	5	20	150	1	0.2	7
WZ5B11VD1	2WG	11	10.78	11.22	5	20	150	1	0.1	8
WZ5B12VD1	2WH	12	11.76	12.24	5	25	150	1	0.1	8
WZ5B13VD1	2WI	13	12.74	13.26	5	30	170	1	0.1	8
WZ5B15VD1	2WJ	15	14.7	15.3	5	30	200	1	0.05	10.5
WZ5B16VD1	2WK	16	15.68	16.32	5	40	200	1	0.05	11.2
WZ5B18VD1	2WL	18	17.64	18.36	5	45	225	1	0.05	12.6
WZ5B20VD1	2WM	20	19.6	20.4	5	55	225	1	0.05	14
WZ5B22VD1	2WN	22	21.56	22.44	5	55	250	1	0.05	15.4
WZ5B24VD1	2WO	24	23.52	24.48	5	70	250	1	0.05	16.8
WZ5B27VD1	2WP	27	26.46	27.54	2	80	300	0.5	0.05	18.9
WZ5B30VD1	2WQ	30	29.4	30.6	2	80	300	0.5	0.05	21
WZ5B33VD1	2WR	33	32.34	33.66	2	80	325	0.5	0.05	23.1
WZ5B36VD1	2WS	36	35.28	36.72	2	90	350	0.5	0.05	25.2
WZ5B39VD1	2WT	39	38.22	39.78	2	130	350	0.5	0.05	27.3
WZ5B43VD1	2WU	43	42.14	43.86	2	150	375	0.5	0.05	30.1
WZ5B47VD1	2WV	47	46.06	47.94	2	170	375	0.5	0.05	32.9
WZ5B51VD1	2X1	51	49.98	52.02	2	180	400	0.5	0.05	35.7
WZ5B56VD1	2X2	56	54.88	57.12	2	200	425	0.5	0.05	39.2
WZ5B62VD1	2X3	62	60.76	63.24	2	215	450	0.5	0.05	43.4
WZ5B68VD1	2X4	68	66.64	69.36	2	240	475	0.5	0.05	47.6
WZ5B75VD1	2X5	75	73.5	76.5	2	255	500	0.5	0.05	52.5

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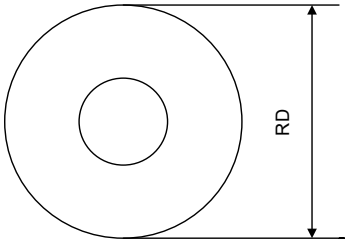
Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (ts)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		5°C/second max
$T_{S(max)}$ to T_L——Ramp-up Rate		5°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		280°C

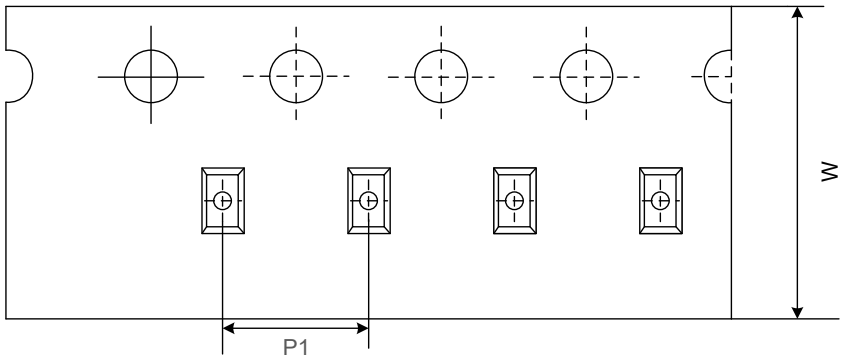


Tape And Reel Information

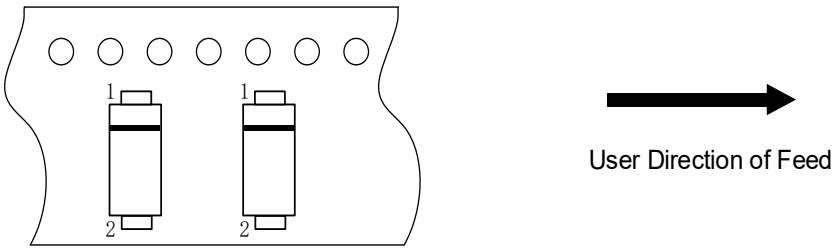
Reel Dimensions



Tape Dimensions



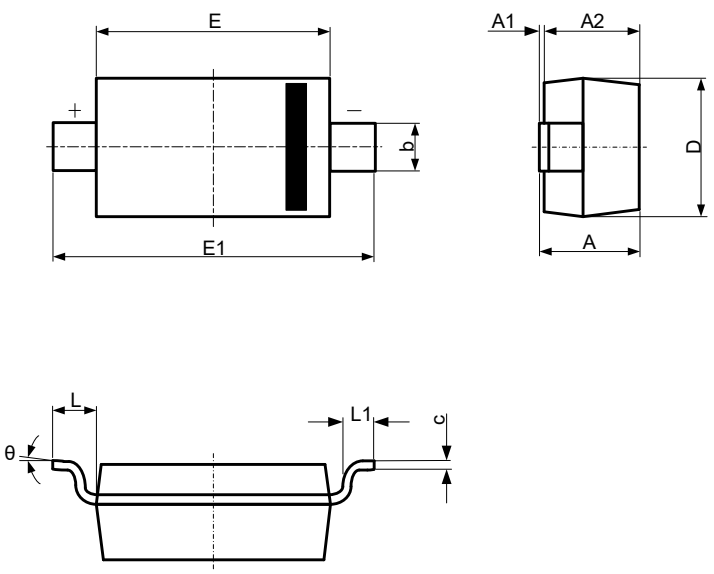
Quadrant Assignments For PIN1 Orientation In Tape

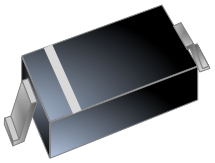


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4 mm

Outline Drawing –SOD-123

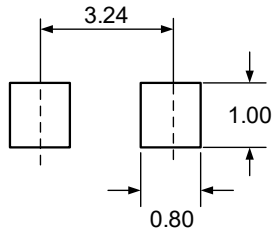
PACKAGE OUTLINE





SOD-123

SYMBOL	MILLIMETERS	
	MIN	MAX
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500 REF	
L1	0.250	0.450
θ	0°	8°



DIMENSIONS: MILLIMETERS

Notes

Controlling Dimensions in Millimeters.

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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2. The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

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