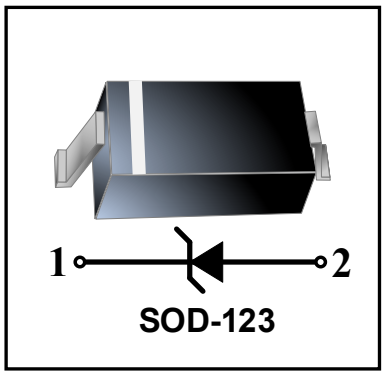
WZ5CxxxD1

ZENER DIODE



Features

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

Mechanical Data

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

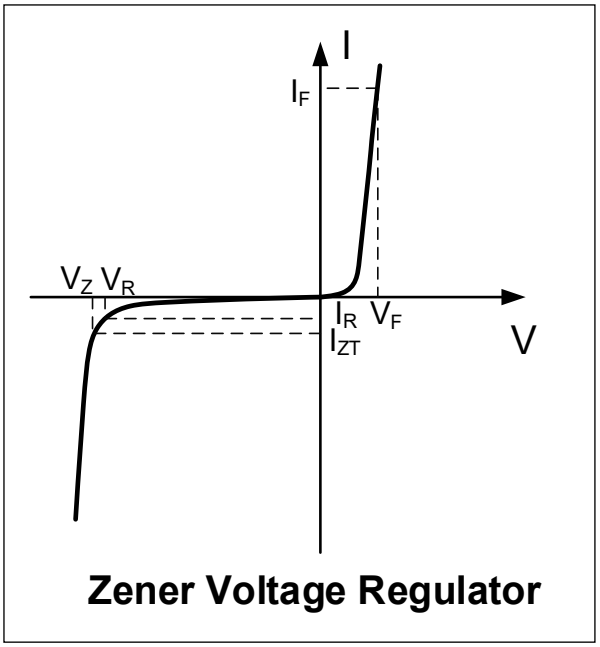
Absolute Maximum Rating (T_a=25°C unless otherwise noted)

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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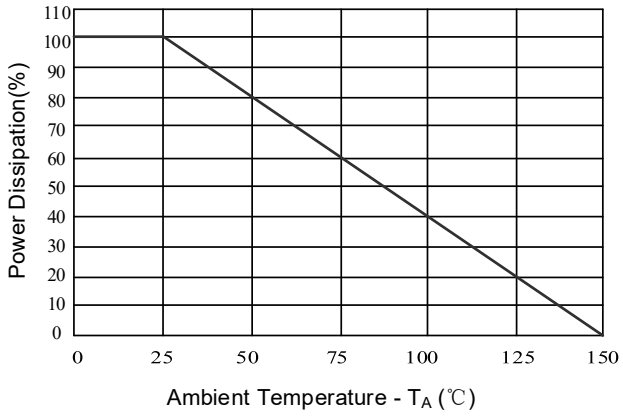
Electrical Parameters (T_a=25℃)

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

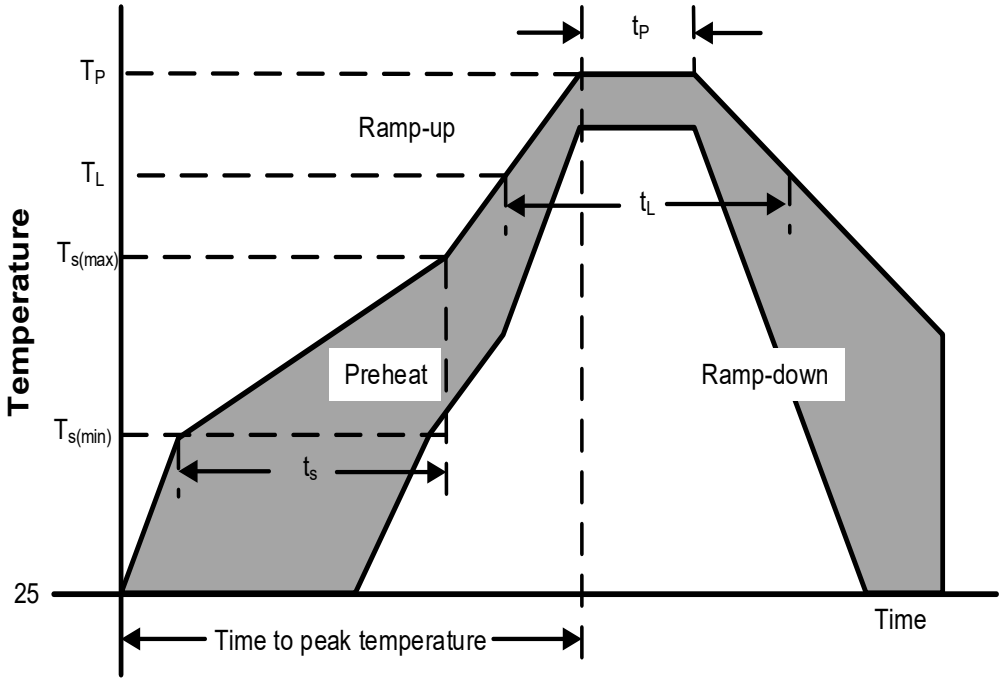


Electrical Characteristics

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)
WZ5C2V4D1	WX	2.4	2.2	2.6	5	100	600	1	50	1
WZ5C2V7D1	W1	2.7	2.5	2.9	5	100	600	1	20	1
WZ5C3V0D1	W2	3.0	2.8	3.2	5	95	600	1	10	1
WZ5C3V3D1	W3	3.3	3.1	3.5	5	95	600	1	5	1
WZ5C3V6D1	W4	3.6	3.4	3.8	5	90	600	1	5	1
WZ5C3V9D1	W5	3.9	3.7	4.1	5	90	600	1	3	1
WZ5C4V3D1	W6	4.3	4	4.6	5	90	600	1	3	1
WZ5C4V7D1	W7	4.7	4.4	5	5	80	500	1	3	2
WZ5C5V1D1	W8	5.1	4.8	5.4	5	60	480	1	2	2
WZ5C5V6D1	W9	5.6	5.2	6	5	40	400	1	1	2
WZ5C6V2D1	WA	6.2	5.8	6.6	5	10	150	1	3	4
WZ5C6V8D1	WB	6.8	6.4	7.2	5	15	80	1	2	4
WZ5C7V5D1	WC	7.5	7	7.9	5	15	80	1	1	5
WZ5C8V2D1	WD	8.2	7.7	8.7	5	15	80	1	0.7	5
WZ5C9V1D1	WE	9.1	8.5	9.6	5	15	100	1	0.5	6
WZ5C10VD1	WF	10	9.4	10.6	5	20	150	1	0.2	7
WZ5C11VD1	WG	11	10.4	11.6	5	20	150	1	0.1	8
WZ5C12VD1	WH	12	11.4	12.7	5	25	150	1	0.1	8
WZ5C13VD1	WI	13	12.4	14.1	5	30	170	1	0.1	8
WZ5C15VD1	WJ	15	13.8	15.8	5	30	200	1	0.05	10.5
WZ5C16VD1	WK	16	15.3	17.1	5	40	200	1	0.05	11.2
WZ5C18VD1	WL	18	16.8	19.1	5	45	225	1	0.05	12.6
WZ5C20VD1	WM	20	18.8	21.2	5	55	225	1	0.05	14
WZ5C22VD1	WN	22	20.8	23.3	5	55	250	1	0.05	15.4
WZ5C24VD1	WO	24	22.8	25.6	5	70	250	1	0.05	16.8
WZ5C27VD1	WP	27	25.1	28.9	2	80	300	0.5	0.05	18.9
WZ5C30VD1	WQ	30	28	32	2	80	300	0.5	0.05	21
WZ5C33VD1	WR	33	31	35	2	80	325	0.5	0.05	23.1
WZ5C36VD1	WS	36	34	38	2	90	350	0.5	0.05	25.2
WZ5C39VD1	WT	39	37	41	2	130	350	0.5	0.05	27.3
WZ5C43VD1	WU	43	40	46	2	150	375	0.5	0.05	30.1
WZ5C47VD1	WV	47	44	50	2	170	375	0.5	0.05	32.9
WZ5C51VD1	X1	51	48	54	2	180	400	0.5	0.05	35.7
WZ5C56VD1	X2	56	52	60	2	200	425	0.5	0.05	39.2
WZ5C62VD1	X3	62	58	66	2	215	450	0.5	0.05	43.4
WZ5C68VD1	X4	68	64	72	2	240	475	0.5	0.05	47.6
WZ5C75VD1	X5	75	70	79	2	255	500	0.5	0.05	52.5

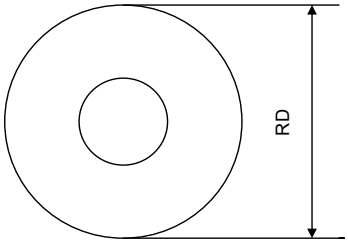
Soldering Parameters

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

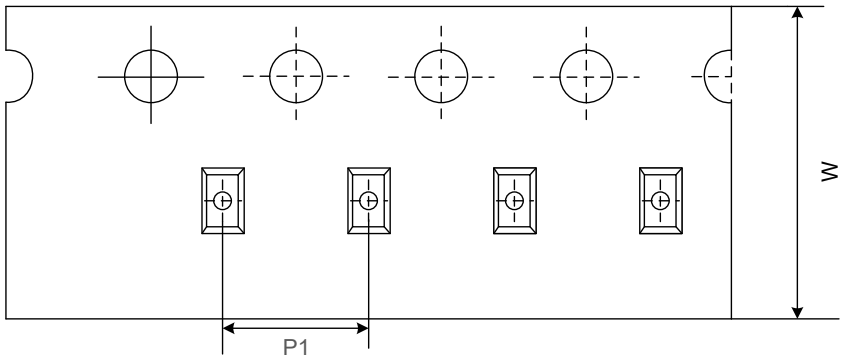


Tape And Reel Information

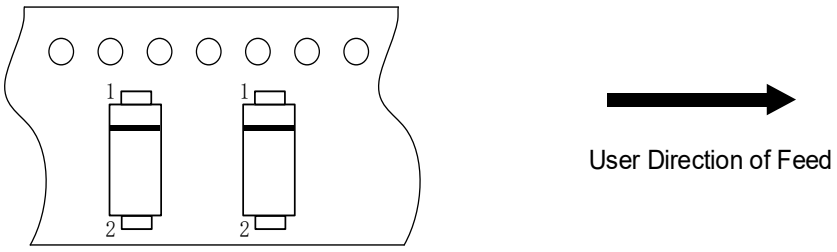
Reel Dimensions



Tape Dimensions



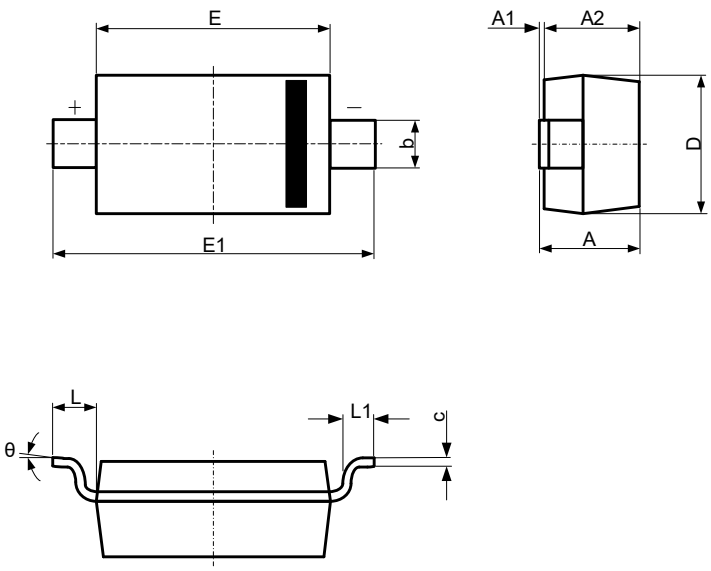
Quadrant Assignments For PIN1 Orientation In Tape

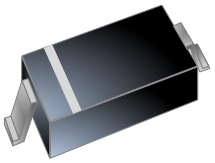


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4 mm

Outline Drawing –SOD-123

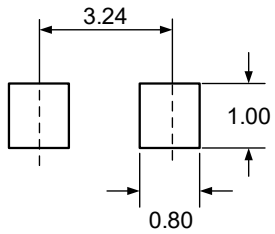
PACKAGE OUTLINE





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

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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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