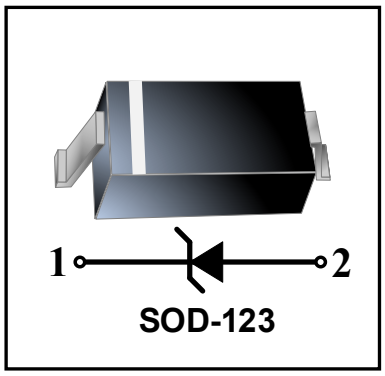
WZ20CxxxD1

ZENER DIODE



Features

- Constant Voltage Control
- Planar Die Construction
- Zener Voltages From 2.5V-47V

Mechanical Data

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

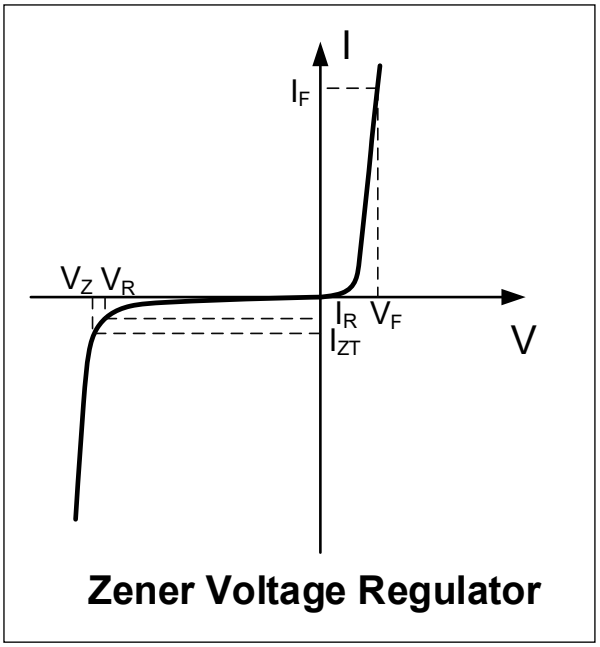
Absolute Maximum Rating (T_a=25°C unless otherwise noted)

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 Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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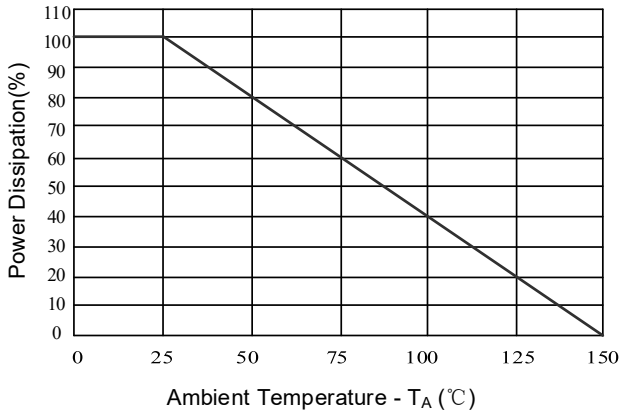
Electrical Parameters (T_a=25℃)

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



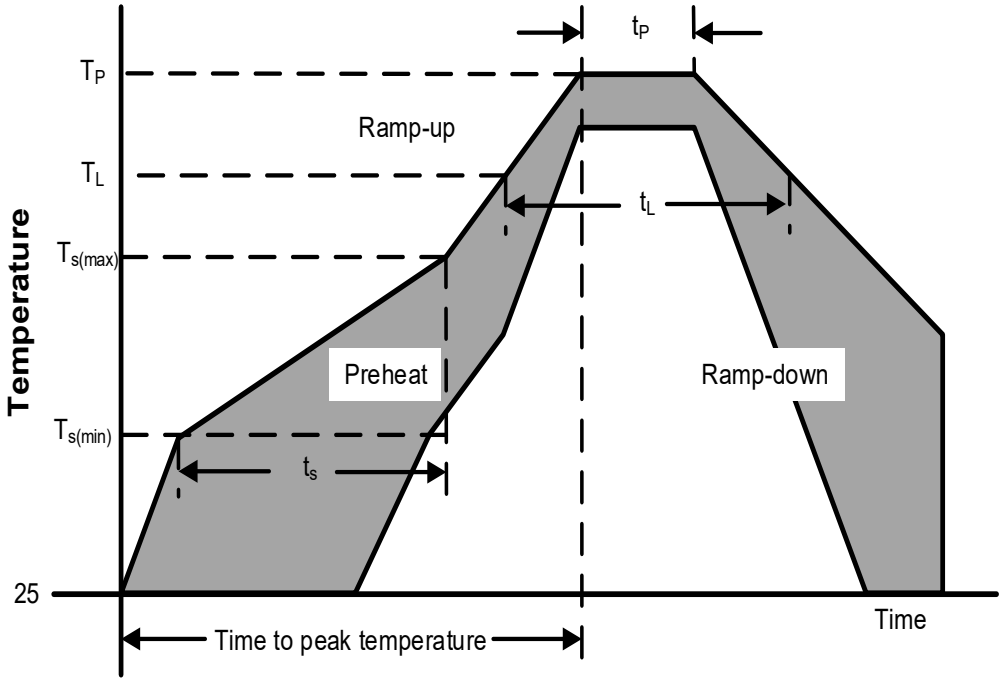
Electrical Characteristics

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)
WZ20C2V4D1	C1	2.4	2.28	2.52	20	30	1200	0.25	100	1.0
WZ20C2V7D1	C3	2.7	2.57	2.84	20	30	1300	0.25	75	1.0
WZ20C3V0D1	C5	3.0	2.85	3.15	20	30	1600	0.25	50	1.0
WZ20C3V3D1	G1	3.3	3.14	3.47	20	28	1600	0.25	25	1.0
WZ20C3V6D1	G2	3.6	3.42	3.78	20	24	1700	0.25	15	1.0
WZ20C3V9D1	G3	3.9	3.71	4.10	20	23	1900	0.25	10	1.0
WZ20C4V3D1	G4	4.3	4.09	4.52	20	22	2000	0.25	5	1.0
WZ20C4V7D1	G5	4.7	4.47	4.94	20	19	1900	0.25	5	2.0
WZ20C5V1D1	E1	5.1	4.85	5.36	20	17	1600	0.25	5	2.0
WZ20C5V6D1	E2	5.6	5.32	5.88	20	11	1600	0.25	5	3.0
WZ20C6V0D1	E3	6.0	5.70	6.30	20	7	1600	0.25	5	3.5
WZ20C6V2D1	E4	6.2	5.89	6.51	20	7	1000	0.25	5	4.0
WZ20C6V8D1	E5	6.8	6.46	7.14	20	5	750	0.25	3	5.0
WZ20C7V5D1	F1	7.5	7.13	7.88	20	6	500	0.25	3	6.0
WZ20C8V2D1	F2	8.2	7.79	8.61	20	8	500	0.25	3	6.5
WZ20C8V7D1	F3	8.7	8.27	9.14	20	8	600	0.25	3	6.5
WZ20C9V1D1	F4	9.1	8.65	9.56	20	10	600	0.25	3	7.0
WZ20C10VD1	F5	10	9.50	10.50	20	17	600	0.25	3	8.0
WZ20C11VD1	H1	11	10.45	11.55	20	22	600	0.25	2	8.4
WZ20C12VD1	H2	12	11.40	12.60	20	30	600	0.25	1	9.1
WZ20C13VD1	H3	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9
WZ20C14VD1	H4	14	13.30	14.70	9.0	15	600	0.25	0.1	10
WZ20C15VD1	H5	15	14.25	15.75	8.5	16	600	0.25	0.1	11
WZ20C16VD1	J1	16	15.20	16.80	7.8	17	600	0.25	0.1	12
WZ20C17VD1	J2	17	16.15	17.85	7.4	19	600	0.25	0.1	13
WZ20C18VD1	J3	18	17.10	18.90	7.0	21	600	0.25	0.1	14
WZ20C20VD1	J5	20	19.00	21.00	6.2	25	600	0.25	0.1	15
WZ20C22VD1	K1	22	20.90	23.10	5.6	29	600	0.25	0.1	17
WZ20C24VD1	K2	24	22.80	25.20	5.2	33	600	0.25	0.1	18
WZ20C25VD1	K3	25	23.75	26.25	5.0	35	600	0.25	0.1	19
WZ20C27VD1	K4	27	25.65	28.35	5.0	41	600	0.25	0.1	21
WZ20C28VD1	K5	28	26.60	29.40	4.5	44	600	0.25	0.1	21
WZ20C30VD1	M1	30	28.50	31.50	4.2	49	600	0.25	0.1	23
WZ20C33VD1	M2	33	31.35	34.65	3.8	58	700	0.25	0.1	25
WZ20C36VD1	M3	36	34.20	37.80	3.4	70	700	0.25	0.1	27
WZ20C39VD1	M4	39	37.05	40.95	3.2	80	800	0.25	0.1	30
WZ20C43VD1	M5	43	40.85	45.15	3	93	900	0.25	0.1	33
WZ20C47VD1	N1	47	44.65	49.35	2.7	105	1000	0.25	0.1	36

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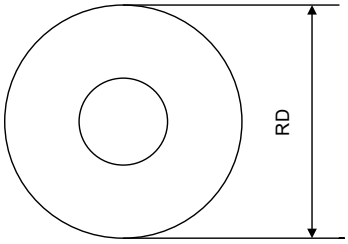
Soldering Parameters

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

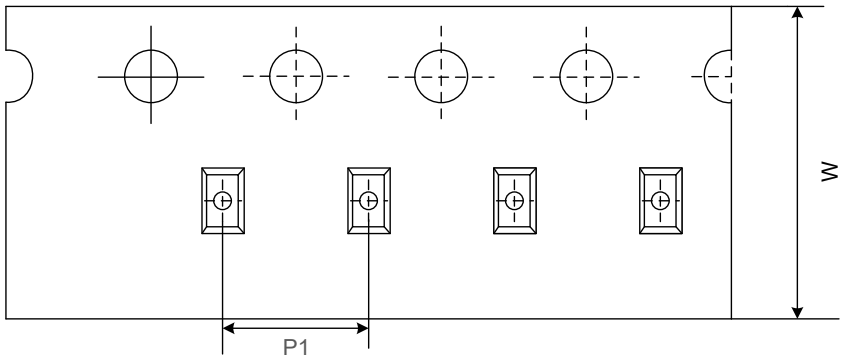


Tape And Reel Information

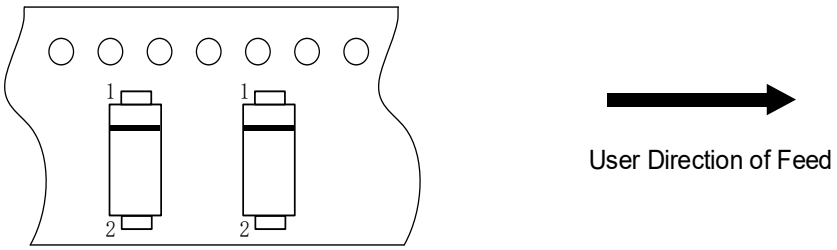
Reel Dimensions



Tape Dimensions



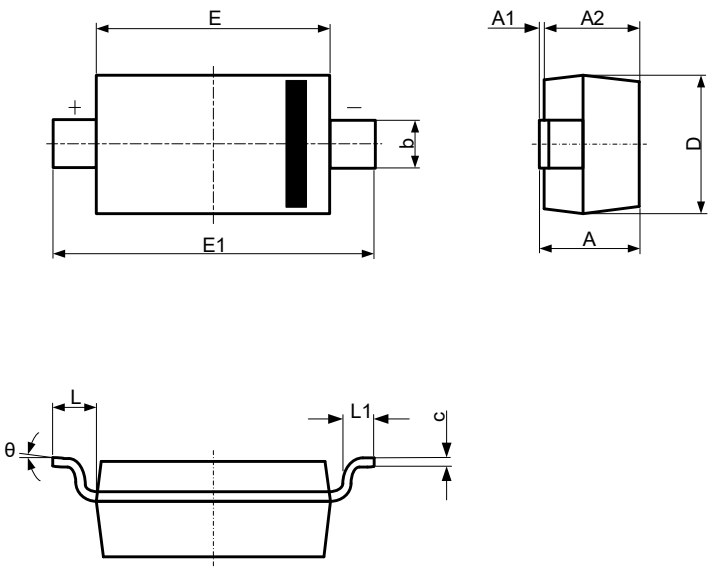
Quadrant Assignments For PIN1 Orientation In Tape

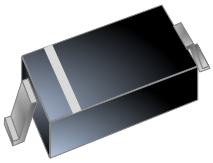


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4 mm

Outline Drawing –SOD-123

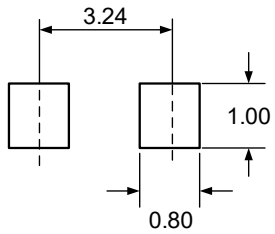
PACKAGE OUTLINE





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

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WAYON website: **http://www.way-on.com**
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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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