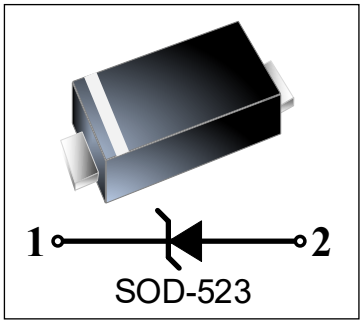
WZ5BxxxD5

ZENER DIODE

Features

- General Purpose, Medium Current
- Planar Die Construction
- Zener Voltages From 2.4V-75V



Mechanical Data

- SOD-523 Package
- Marking : Making Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant & HF
- Device meets MSL3 requirement

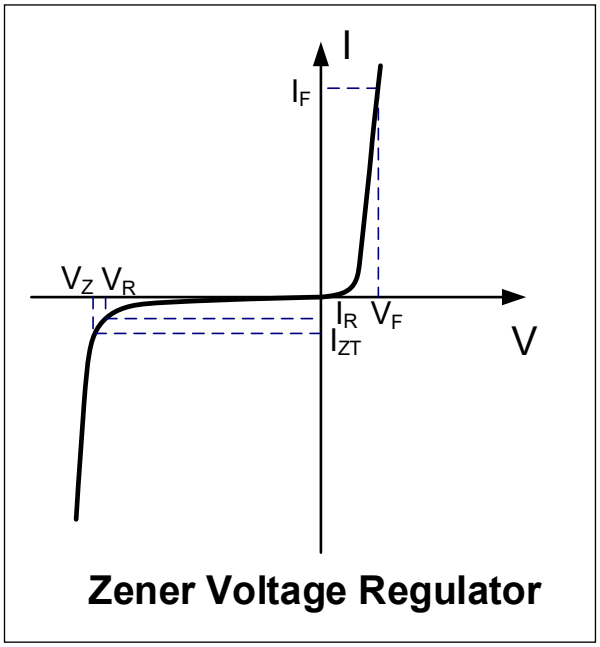
Absolute Maximum Rating (Ta=25℃ Unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Forward Voltage @I_F=10mA	V_F	0.9	V
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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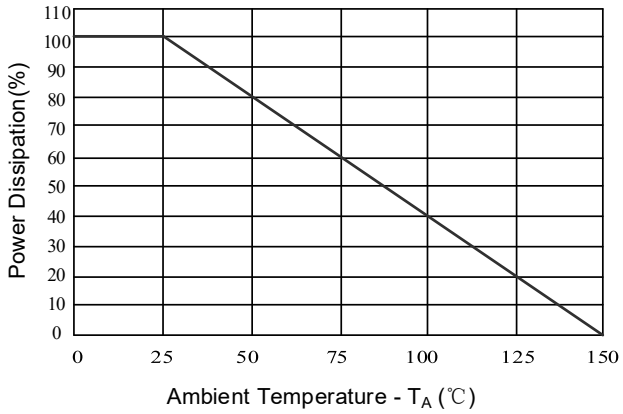
Electrical Parameters (T_a=25℃)

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

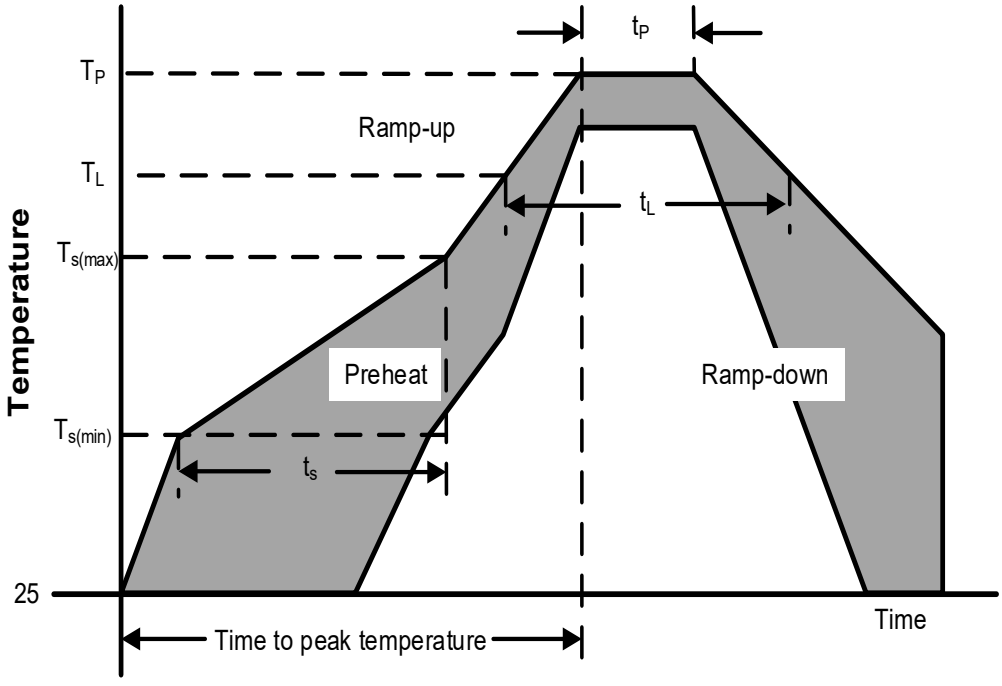


Electrical Characteristics(T_a=25°C unless otherwise noted)

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)
WZ5B2V4D5	Z1.	2.4	2.32	2.45	5	100	600	1	50	1
WZ5B2V7D5	Z2.	2.7	2.62	2.75	5	100	600	1	20	1
WZ5B3V0D5	Z3.	3	2.9	3.06	5	95	600	1	10	1
WZ5B3V3D5	Z4.	3.3	3.2	3.37	5	95	600	1	5	1
WZ5B3V6D5	Z5.	3.6	3.53	3.67	5	90	600	1	5	1
WZ5B3V9D5	Z6.	3.9	3.82	3.98	5	90	600	1	3	1
WZ5B4V3D5	Z7.	4.3	4.21	4.39	5	90	600	1	3	1
WZ5B4V7D5	X1.	4.7	4.6	4.8	5	80	500	1	3	2
WZ5B5V1D5	2Z2	5.1	4.99	5.21	5	60	480	1	2	2
WZ5B5V6D5	2Z3	5.6	5.48	5.72	5	40	400	1	1	2
WZ5B6V2D5	2Z4	6.2	6.07	6.33	5	10	150	1	3	4
WZ5B6V8D5	2Z5	6.8	6.66	6.94	5	15	80	1	2	4
WZ5B7V5D5	2Z6	7.5	7.35	7.75	5	15	80	1	1	5
WZ5B8V2D5	2Z7	8.2	8.03	8.37	5	15	80	1	0.7	5
WZ5B9V1D5	2Z8	9.1	8.91	9.29	5	15	100	1	0.5	6
WZ5B10VD5	2Z9	10	9.8	10.2	5	20	150	1	0.2	7
WZ5B11VD5	2Y1	11	10.78	11.22	5	20	150	1	0.1	8
WZ5B12VD5	2Y2	12	11.76	12.24	5	25	150	1	0.1	8
WZ5B13VD5	2Y3	13	12.74	13.26	5	30	170	1	0.1	8
WZ5B15VD5	2Y4	15	14.7	15.3	5	30	200	1	0.05	10.5
WZ5B16VD5	2Y5	16	15.68	16.32	5	40	200	1	0.05	11.2
WZ5B18VD5	2Y6	18	17.64	18.36	5	45	225	1	0.05	12.6
WZ5B20VD5	2Y7	20	19.6	20.4	5	55	225	1	0.05	14
WZ5B22VD5	W8.	22	21.56	22.44	5	55	250	1	0.05	15.4
WZ5B24VD5	W9.	24	23.52	24.48	5	70	250	1	0.05	16.8
WZ5B27VD5	Y1.	27	26.46	27.54	2	80	300	0.5	0.05	18.9
WZ5B30VD5	Y2.	30	29.4	30.6	2	80	300	0.5	0.05	21
WZ5B33VD5	Y3.	33	32.34	33.66	2	80	325	0.5	0.05	23.1
WZ5B36VD5	Y4.	36	35.28	37.5	2	90	350	0.5	0.05	25.2
WZ5B39VD5	Y5.	39	38.22	40.2	2	130	350	0.5	0.05	27.3
WZ5B43VD5	Y6.	43	42.14	43.86	2	150	375	0.5	0.05	30.1
WZ5B47VD5	V1.	47	46.06	47.94	2	170	375	0.5	0.05	32.9
WZ5B51VD5	V2.	51	49.98	52.02	2	180	400	0.5	0.05	35.7
WZ5B56VD5	V3.	56	54.88	57.12	2	200	425	0.5	0.05	39.2
WZ5B62VD5	V4.	62	60.76	63.24	2	215	450	0.5	0.05	43.4
WZ5B68VD5	V5.	68	66.64	69.36	2	240	475	0.5	0.05	47.6
WZ5B75VD5	V6.	75	73.5	76.5	2	255	500	0.5	0.05	52.5

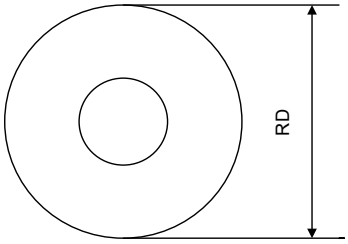
Soldering Parameters

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

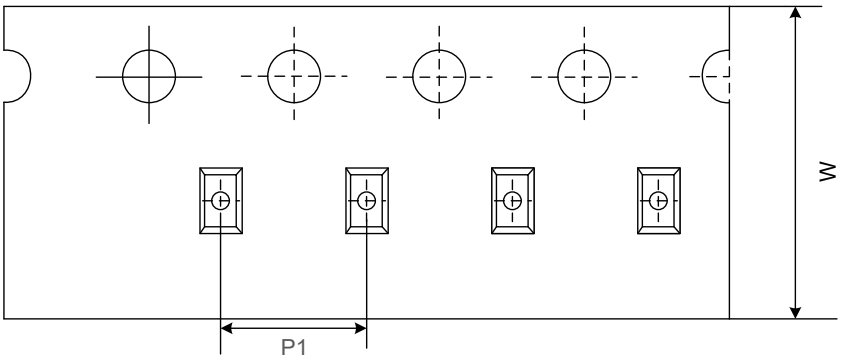


Tape And Reel Information

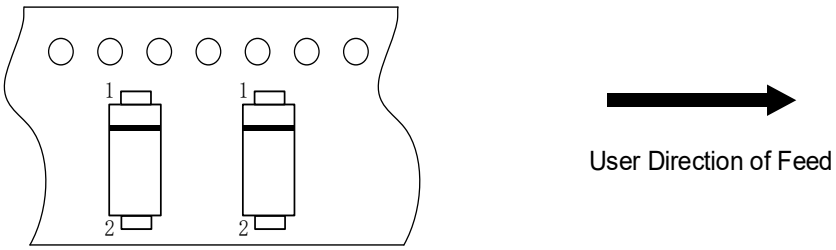
Reel Dimensions



Tape Dimensions



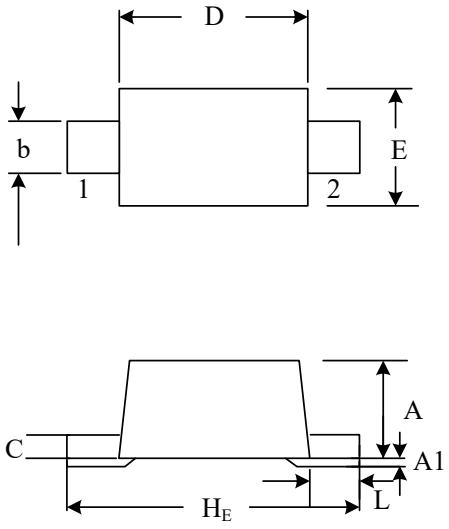
Quadrant Assignments For PIN1 Orientation In Tape

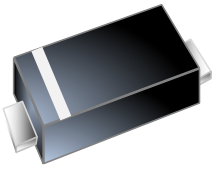


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	2 mm

Outline Drawing –SOD-523

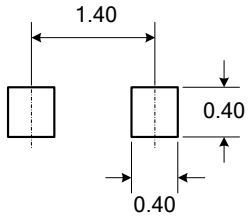
PACKAGE OUTLINE





SOD-523

SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.50	0.70
A1	0.00	0.07
b	0.25	0.35
C	0.07	0.20
D	1.10	1.30
E	0.70	0.90
H_E	1.50	1.70
L	0.15	0.25



DIMENSIONS: MILLIMETERS

Notes:
Controlling Dimension: Millimeter.

Package Information

Qty：5k/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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1. The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

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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