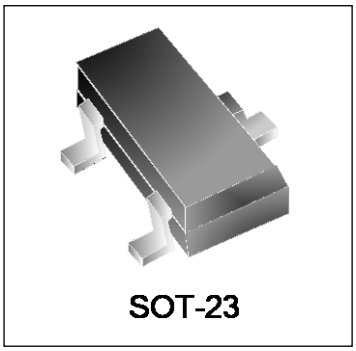
WZ5CxxxST

ZENER DIODE

Features

- Dual Zeners In Common Anode Configuration
- Planar Die Construction
- Zener Voltages From 2.7V-47V

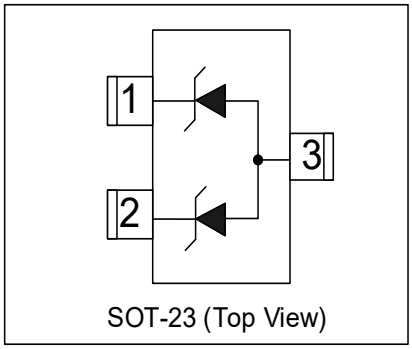


SOT-23

Mechanical Characteristics

- SOT-23 Package
- Marking : Refer to Table List
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant & HF
- Device meets MSL3 requirement

Schematic & PIN Configuration



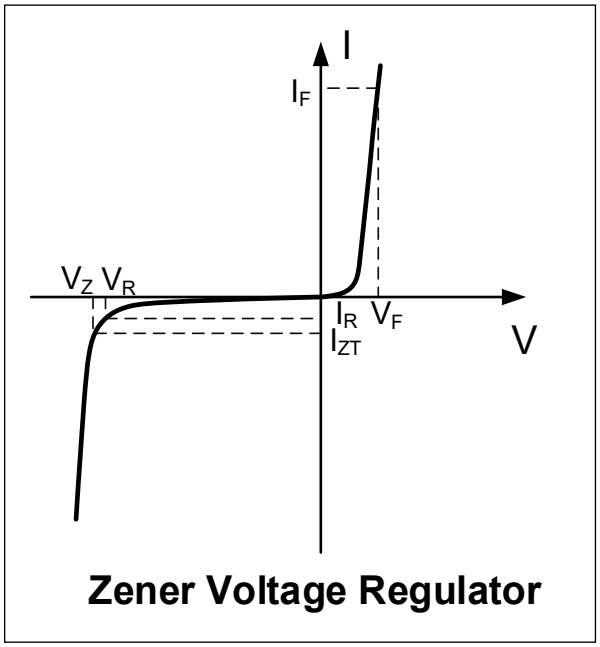
SOT-23 (Top View)

Absolute Maximum Rating

Parameter	Symbol	Value	Units
Maximum Forward Voltage @ I_F=10mA	V_F	0.9	V
Operating and Storage Temperature Range	T_J ,T_{STG}	-55 to +150	°C
Power Dissipation	P_D	300	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	°C/W

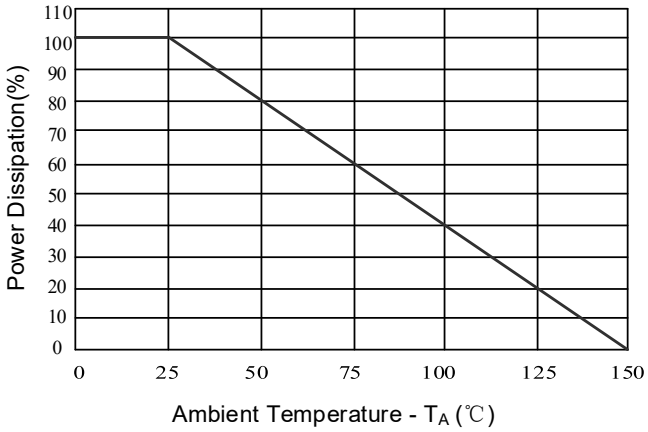
Electrical Parameters (T_a=25℃)

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



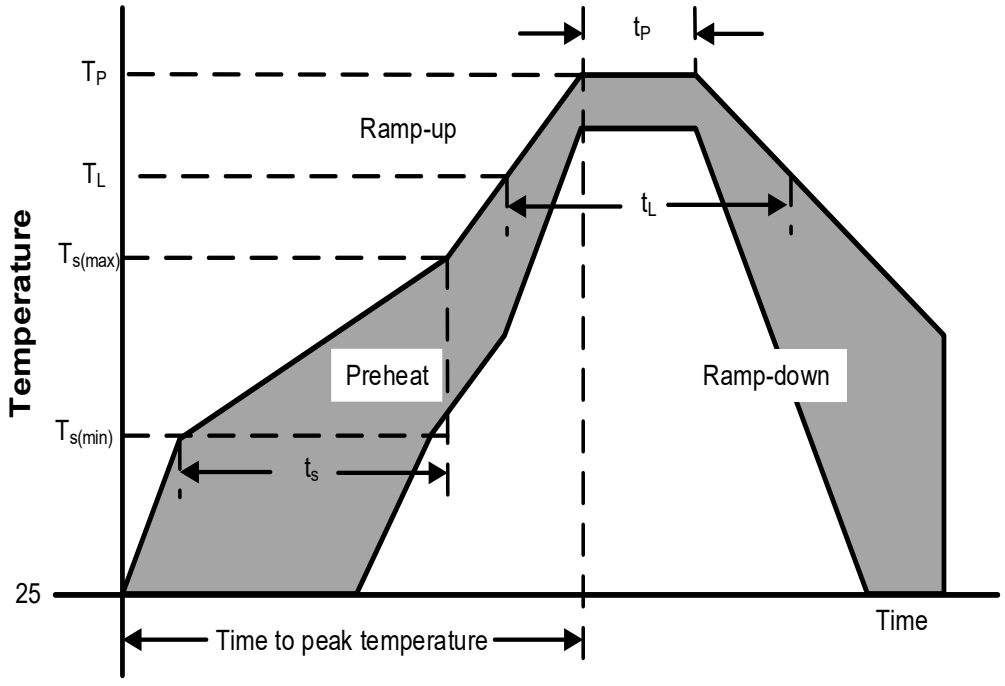
Electrical Characteristics(Ta=25°C unless otherwise noted)

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)
WZ5C2V7ST	KD1	2.7	2.5	2.9	5	100	600	1	20	1
WZ5C3V0ST	KD2	3	2.8	3.2	5	95	600	1	10	1
WZ5C3V3ST	KD3	3.3	3.1	3.5	5	95	600	1	5	1
WZ5C3V6ST	KD4	3.6	3.4	3.8	5	90	600	1	5	1
WZ5C3V9ST	KD5	3.9	3.7	4.1	5	90	600	1	3	1
WZ5C4V3ST	KD6	4.3	4	4.6	5	90	600	1	3	1
WZ5C4V7ST	KD7	4.7	4.4	5	5	80	500	1	3	2
WZ5C5V1ST	KD8	5.1	4.8	5.4	5	60	480	1	2	2
WZ5C5V6ST	KD9	5.6	5.2	6	5	40	400	1	1	2
WZ5C6V2ST	KDA	6.2	5.8	6.6	5	10	150	1	3	4
WZ5C6V8ST	KDB	6.8	6.4	7.2	5	15	80	1	2	4
WZ5C7V5ST	KDC	7.5	7	7.9	5	15	80	1	1	5
WZ5C8V2ST	KDD	8.2	7.7	8.7	5	15	80	1	0.7	5
WZ5C9V1ST	KDE	9.1	8.5	9.6	5	15	100	1	0.5	6
WZ5C10VST	KDF	10	9.4	10.6	5	20	150	1	0.2	7
WZ5C11VST	KDG	11	10.4	11.6	5	20	150	1	0.1	8
WZ5C12VST	KDH	12	11.4	12.7	5	25	150	1	0.1	8
WZ5C13VST	KDI	13	12.4	14.1	5	30	170	1	0.1	8
WZ5C15VST	KDJ	15	13.8	15.8	5	30	200	1	0.05	10.5
WZ5C16VST	KDK	16	15.3	17.1	5	40	200	1	0.05	11.2
WZ5C18VST	KDL	18	16.8	19.1	5	45	225	1	0.05	12.6
WZ5C20VST	KDM	20	18.8	21.2	5	55	225	1	0.05	14
WZ5C22VST	KDN	22	20.8	23.3	5	55	250	1	0.05	15.4
WZ5C24VST	KDO	24	22.8	25.6	5	70	250	1	0.05	16.8
WZ5C27VST	KDP	27	25.1	28.9	2	80	300	0.5	0.05	18.9
WZ5C30VST	KDQ	30	28	32	2	80	300	0.5	0.05	21
WZ5C33VST	KDR	33	31	35	2	80	325	0.5	0.05	23.1
WZ5C36VST	KDS	36	34	38	2	90	350	0.5	0.05	25.2
WZ5C39VST	KDT	39	37	41	2	130	350	0.5	0.05	27.3
WZ5C43VST	D30	43	40	46	2	150	375	0.5	0.05	30.1
WZ5C47VST	D31	47	44	50	2	170	375	0.5	0.05	32.9

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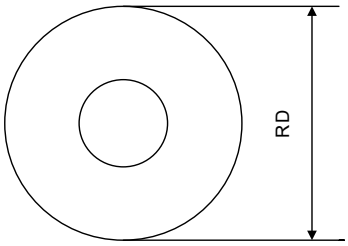
Soldering Parameters

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

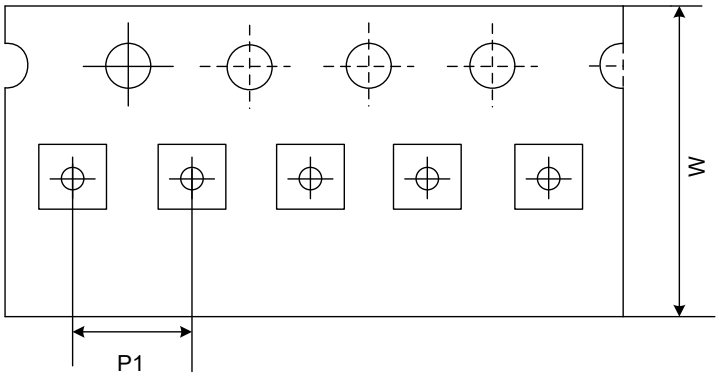


Tape And Reel Information

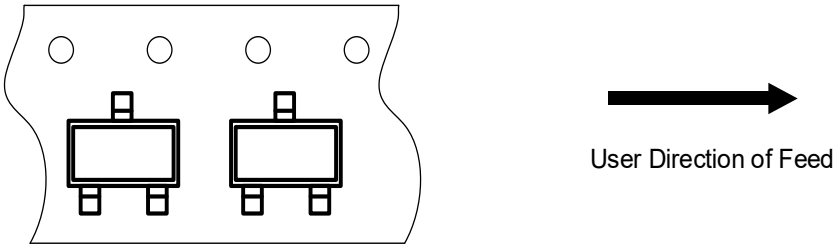
Reel Dimensions



Tape Dimensions



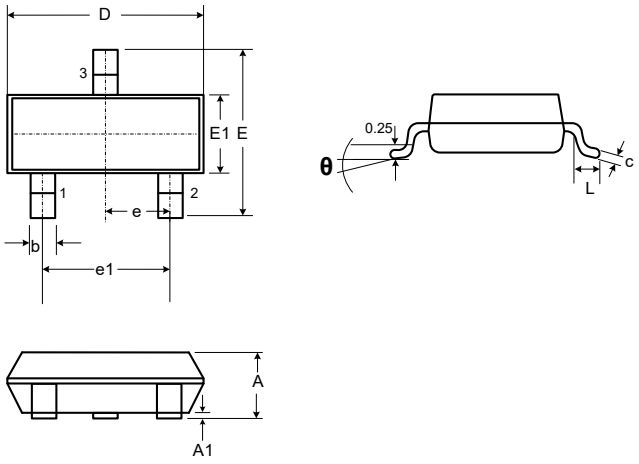
Quadrant Assignments For PIN1 Orientation In Tape

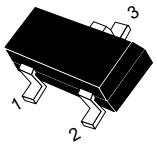


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4 mm

Outline Drawing – SOT-23

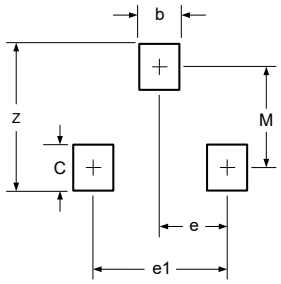
PACKAGE OUTLINE





SOT-23

SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.90	1.15
A1	0.00	0.15
b	0.30	0.55
c	0.07	0.20
D	2.80	3.10
E	2.10	2.65
E1	1.20	1.40
e	0.95 BSC	
e1	1.78	2.05
L	0.30	0.50
θ	0°	8°



DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.0795	2.02
C	0.0315	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.9 BSC
b	0.0315	0.80

Notes:
Controlling Dimension: Millimeter.

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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