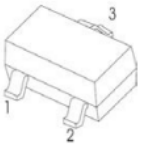
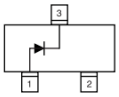
Y23VZP3D2V4 THRU Y23VZP3D75

FEATURES

- Planar Die Construction
- 300mW Power Dissipation
- Zener Voltages from 2.4V - 43V
- Ultra-Small Surface Mount Package Power Dissipation



SOT-23



Absolute Maximum Ratings And Characteristics （Ta = 25 ° C）

Parameter	Symbol	Value	Unit
Forward Voltage (Note 2) @ I_F = 10mA	V_F	0.9	V
Power Dissipation(Note 1)	P_d	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	℃/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55～+150	℃

Electrical Characteristics (TA = 25 °C)

Part Number	VZ*1			IZT	ZZT@IZT	ZZK@IZK	IZK	IR	VR	Temperature Coefficent of Zener voltage @ IZT=5mA mV/°C	
	Nom（V）	Min（V）	Max（V）	mA	Ω		(mA)	(uA)	(V)	Min	Max
Y23VZP3D2V4	2.4	2.2	2.6	5	100	600	1	50	1	-3.5	0
Y23VZP3D2V7	2.7	2.5	2.9	5	100	600	1	20	1	-3.5	0
Y23VZP3D3V0	3.0	2.8	3.2	5	95	600	1	10	1	-3.5	0
Y23VZP3D3V3	3.3	3.1	3.5	5	95	600	1	5	1	-3.5	0
Y23VZP3D3V6	3.6	3.4	3.8	5	90	600	1	5	1	-3.5	0
Y23VZP3D3V9	3.9	3.7	4.1	5	90	600	1	3	1	-3.5	0
Y23VZP3D4V3	4.3	4.0	4.6	5	90	600	1	3	1	-3.5	0
Y23VZP3D4V7	4.7	4.4	5.0	5	80	500	1	3	2	-3.5	0.2
Y23VZP3D5V1	5.1	4.8	5.4	5	60	480	1	2	2	-2.7	1.2
Y23VZP3D5V6	5.6	5.2	6.0	5	40	400	1	1	2	-2.0	2.5
Y23VZP3D6V2	6.2	5.8	6.6	5	10	150	1	3	4	0.4	3.7
Y23VZP3D6V8	6.8	6.4	7.2	5	15	80	1	2	4	1.2	4.5
Y23VZP3D7V5	7.5	7.0	7.9	5	15	80	1	1	5	2.5	5.3
Y23VZP3D8V2	8.2	7.7	8.7	5	15	80	1	0.7	5	3.2	6.2
Y23VZP3D9V1	9.1	8.5	9.6	5	15	100	1	0.5	6	3.8	7.0
Y23VZP3D10	10	9.4	10.6	5	20	150	1	0.2	7	4.5	8.0
Y23VZP3D11	11	10.4	11.6	5	20	150	1	0.1	8	5.4	9.0

Y23VZP3D12	12	11.4	12.7	5	25	150	1	0.1	8	6.0	10.0
Y23VZP3D13	13	12.4	14.1	5	30	170	1	0.1	8	7.0	11.0
Y23VZP3D15	15	13.8	15.6	5	30	200	1	0.1	10.5	9.2	13.0
Y23VZP3D16	16	15.3	17.1	5	40	200	1	0.1	11.2	10.4	14.0
Y23VZP3D18	18	16.8	19.1	5	45	225	1	0.1	12.6	12.4	16.0
Y23VZP3D20	20	18.8	21.2	5	55	225	1	0.1	14	14.4	18.0
Y23VZP3D22	22	20.8	23.3	5	55	250	1	0.1	15.4	16.4	20.0
Y23VZP3D24	24	22.8	25.6	5	70	250	1	0.1	16.8	18.4	22.0
Y23VZP3D27	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3
Y23VZP3D30	30	28.0	32.0	2	80	300	0.5	0.1	21	24.4	29.4
Y23VZP3D33	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4
Y23VZP3D36	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4
Y23VZP3D39	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2
Y23VZP3D43	43	40.0	46.0	2	100	700	1	0.1	32	10	12

Notes:

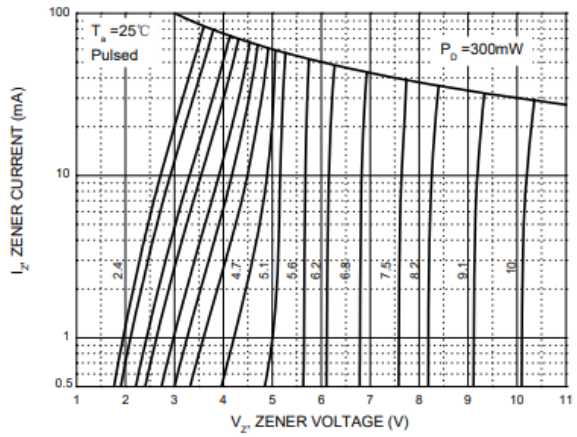
1. Valid provided that device terminals are kept at ambient temperature.

2. Tested with pulses, period=5ms,pulse width =300µs.

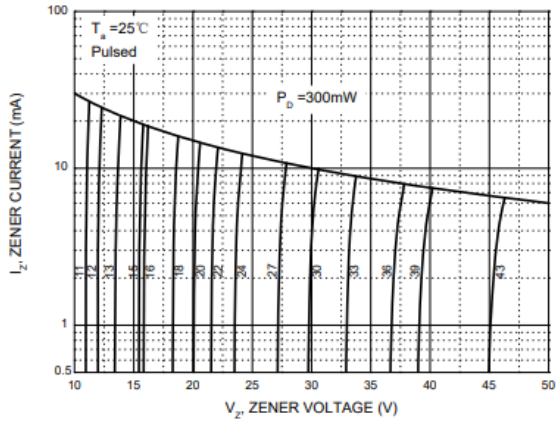
3. f = 1kHZ.

Typical Characteristics

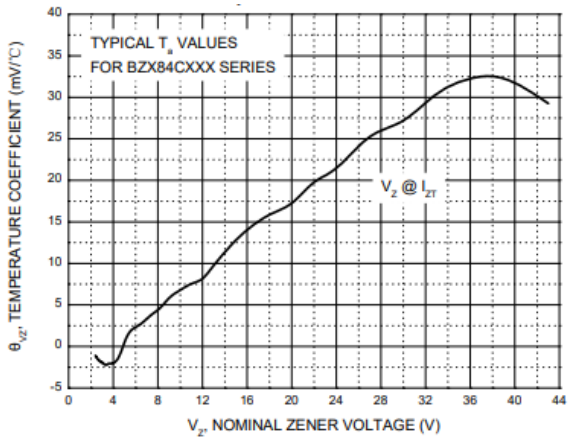
Zener Characteristics (VZ Up to 10 V)



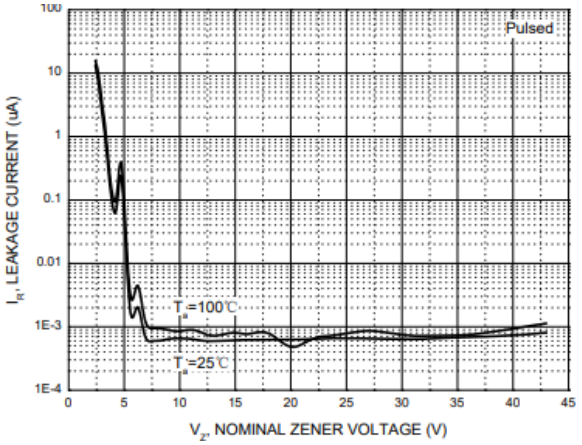
Zener Characteristics (11 V to 43 V)



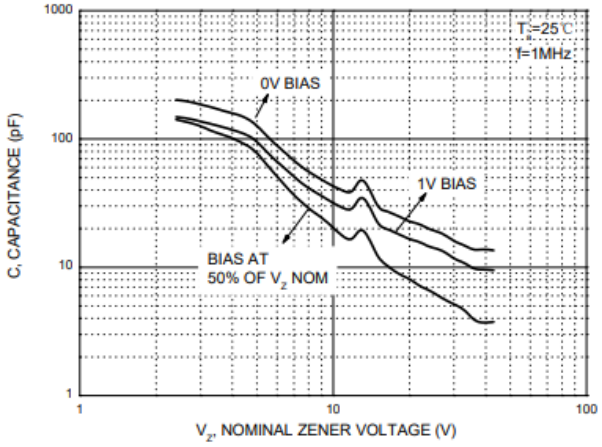
Temperature Coefficients



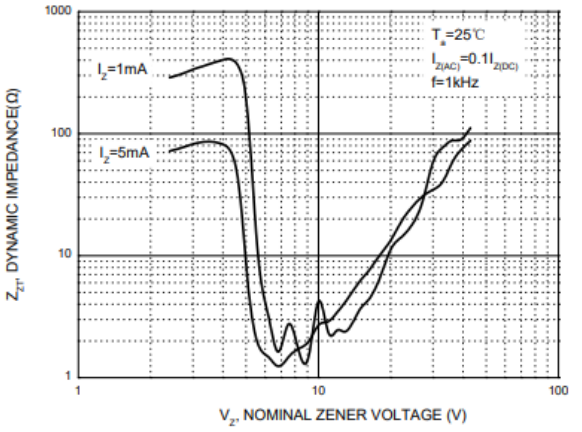
Typical Leakage Current



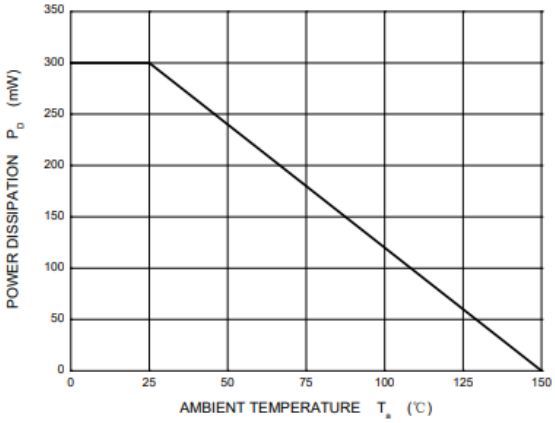
Typical Capacitance



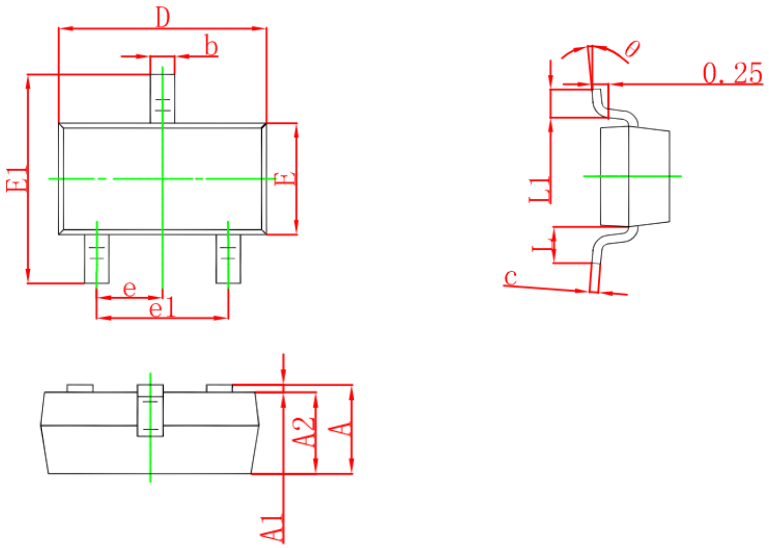
Effect of Zener Voltage on Zener Impedance



Power Derating Curve

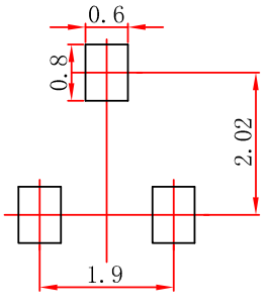


Package Outline



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout

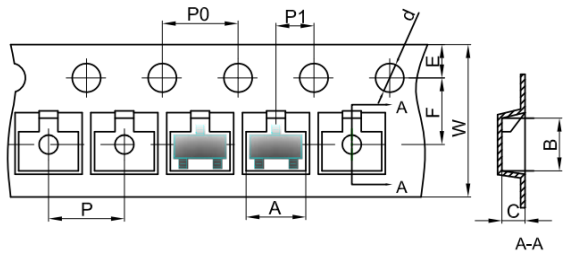


NOTE:

1. Controlling dimension: in millimeters
2. General tolerance: ±0.05mm
3. The pad layout is for reference purposes only

Tape and Reel

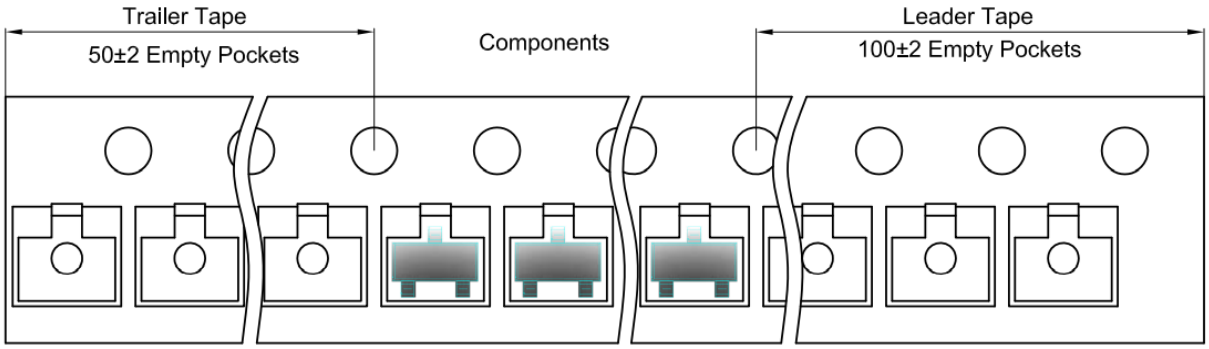
Embossed carrier tape



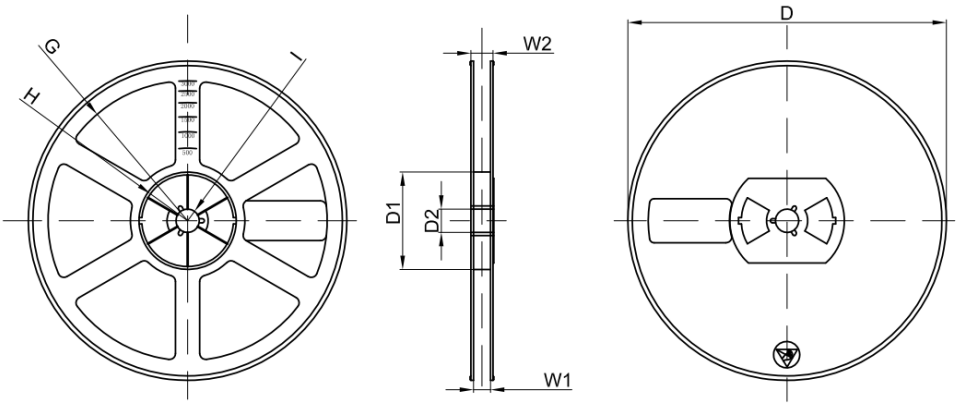
A	B	C	d	E	F	P0	P	P1	W
3.15	2.77	1.22	ϕ1.50	1.75	3.50	4.00	4.00	2.00	8.00

Unit： mm

Tape leader and trailer



Reel：



Reel Option	D	D1	D2	G	H	I	W1	W2
7”Dia	ϕ178.0	54.4	13.0	R78.0	R25.6	R6.5	9.5	12.3

Unit: mm