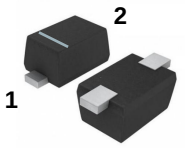
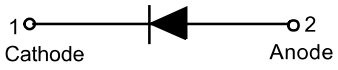
FEATURES

- Planar Die Construction
- 200mW Power Dissipation
- Zener Voltages from 2.0 – 75 V

Schematic & PIN Configuration



SOD-523



Circuit



Marking

MAXIMUM RATINGS(T_a=25℃ unless otherwise specified)

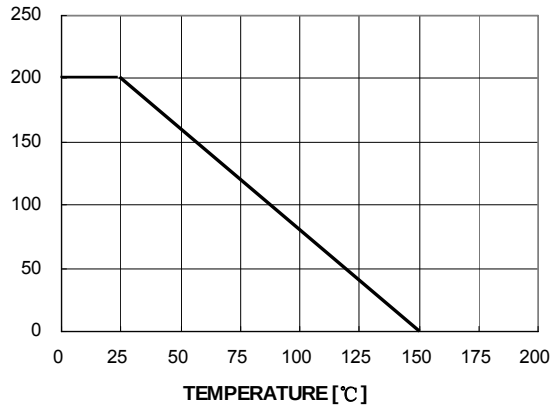
Characteristic	Symbol	Value	Unit
Forward Voltage @I_F=10mA	V_F	0.9	V
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS

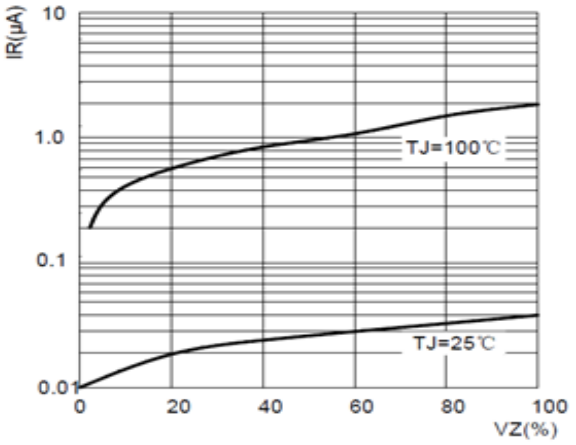
Type	Marking Code	Zener Voltage [1]				Zener Impedance				Leakage Current	
		V_{ZT}			at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
		Min. (V)	Nom. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
SZ2VGD522	RD	1.8	2.0	2.15	5	100	5	-	-	120	0.5
SZ2V2GD522	RE	2.08	2.2	2.33	5	100	5	-	-	120	0.7
SZ2V4GD522	Z11	2.2	2.4	2.6	5	100	5	1000	1	120	1
SZ2V7GD522	Z12	2.5	2.7	2.9	5	100	5	1000	1	120	1
SZ3V0GD522	Z13	2.8	3.0	3.2	5	100	5	1000	1	50	1
SZ3V3GD522	Z14	3.1	3.3	3.5	5	95	5	1000	1	20	1
SZ3V6GD522	Z15	3.4	3.6	3.8	5	90	5	1000	1	10	1
SZ3V9GD522	O7	3.7	3.9	4.1	5	90	5	1000	1	5	1
SZ4V3GD522	Z17	4	4.3	4.6	5	90	5	1000	1	5	1
SZ4V7GD522	G8	4.4	4.7	5	5	80	5	800	1	2	1
SZ5V1GD522	H8	4.8	5.1	5.4	5	60	5	500	1	2	1.5
SZ5V6GD522	I8	5.2	5.6	6	5	40	5	200	1	1	2.5
SZ6V2GD522	Z4	5.8	6.2	6.6	5	10	5	100	1	1	3
SZ6V8GD522	Z5	6.4	6.8	7.2	5	15	5	160	1	0.5	3.5
SZ7V5GD522	Z6	7	7.5	7.9	5	15	5	160	1	0.5	4
SZ8V2GD522	Z7	7.7	8.2	8.7	5	15	5	160	1	0.5	5
SZ9V1GD522	Z8	8.5	9.1	9.6	5	15	5	160	1	0.5	6
SZ10VGD522	Z9	9.4	10	10.6	5	20	5	160	1	0.1	7
SZ11VGD522	Y1	10.4	11	11.6	5	20	5	160	1	0.1	8
SZ12VGD522	Y2	11.4	12	12.7	5	25	5	80	1	0.1	9
SZ13VGD522	Y3	12.4	13	14.1	5	30	5	80	1	0.1	10
SZ15VGD522	Y4	13.8	15	15.6	5	30	5	80	1	0.1	11
SZ16VGD522	Y5	15.3	16	17.1	2	40	2	80	1	0.1	12
SZ18VGD522	Y6	16.8	18	19.1	2	45	2	80	1	0.1	13
SZ20VGD522	Y7	18.8	20	21.2	2	55	2	100	1	0.1	15
SZ22VGD522	Y8	20.8	22	23.3	2	55	2	100	1	0.1	17
SZ24VGD522	Y9	22.8	24	25.6	2	70	2	120	1	0.1	19
SZ27VGD522	Y10	25.1	27	28.9	2	80	2	300	1	0.1	21
SZ30VGD522	Y11	28	30	32	2	80	2	300	1	0.1	23
SZ33VGD522	Y12	31	33	35	2	80	2	300	1	0.1	25
SZ36VGD522	Y13	34	36	38	2	90	2	500	1	0.1	27
SZ39VGD522	Y14	37	39	41	2	130	2	500	1	2	30
SZ43VGD522	Y15	40	43	46	1	150	1	500	1	2	33
SZ47VGD522	Y16	44	47	50	1	170	1	500	1	2	36
SZ51VGD522	Y17	48	51	54	1	180	1	500	1	1	39
SZ56VGD522	Y18	52	56	60	1	200	1	500	1	1	43
SZ62VGD522	Y19	58	62	66	1	215	1	500	1	0.2	47
SZ68VGD522	Y20	64	68	72	1	240	1	500	1	0.2	52
SZ75VGD522	Y21	70	75	79	1	255	1	500	1	0.2	57

[1] Tested with pulses tp = 20 ms.

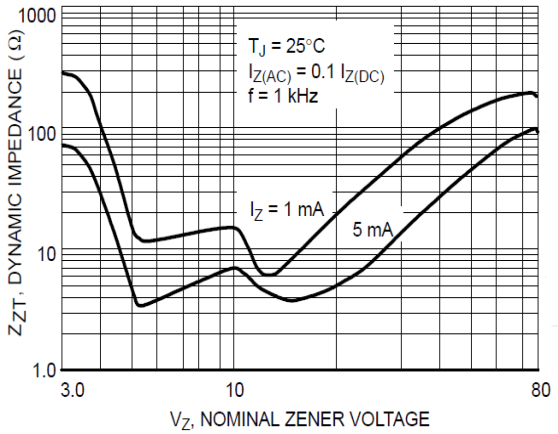
Typical Characteristics



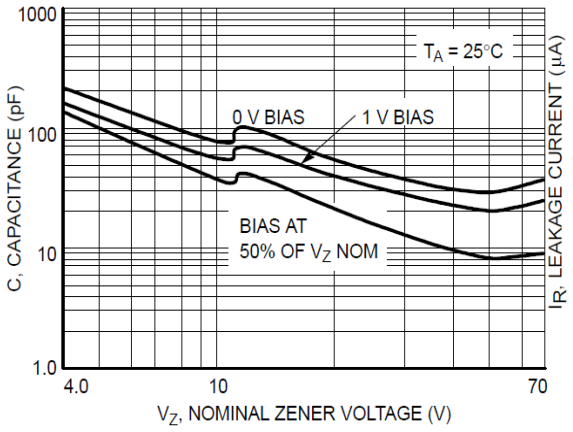
Power Derating Curve



Typical Leakage Current

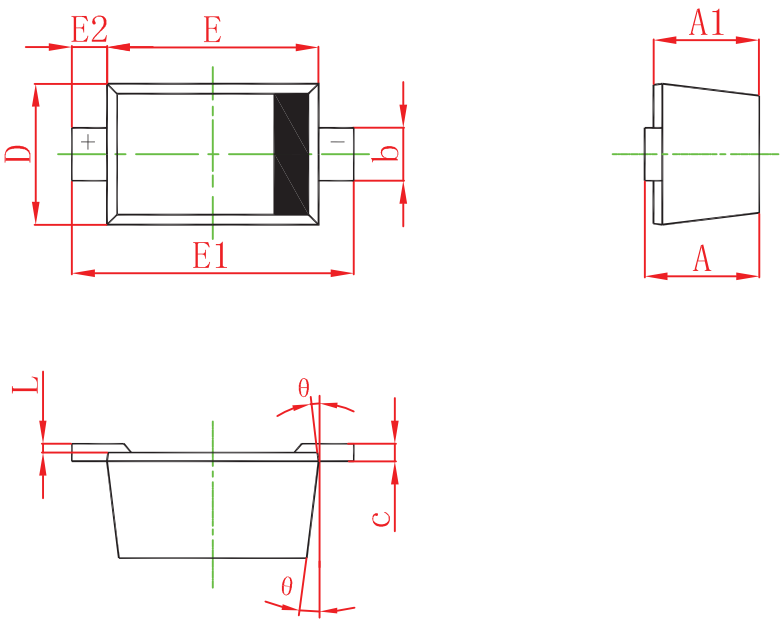


Effect of Zener Voltage on Zener Impedance



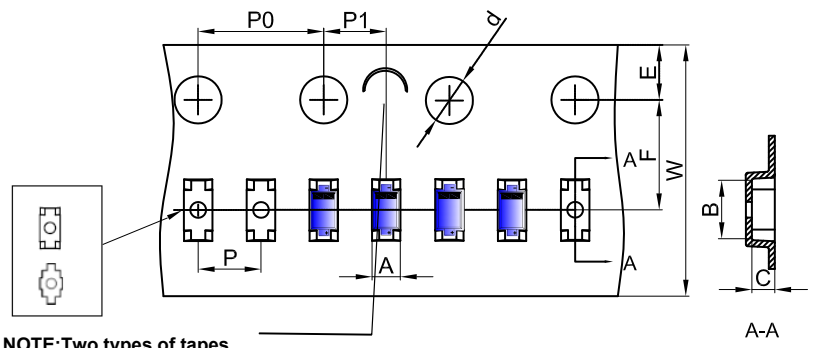
Typical Capacitance

SOD-523 Package



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 Tape and Reel

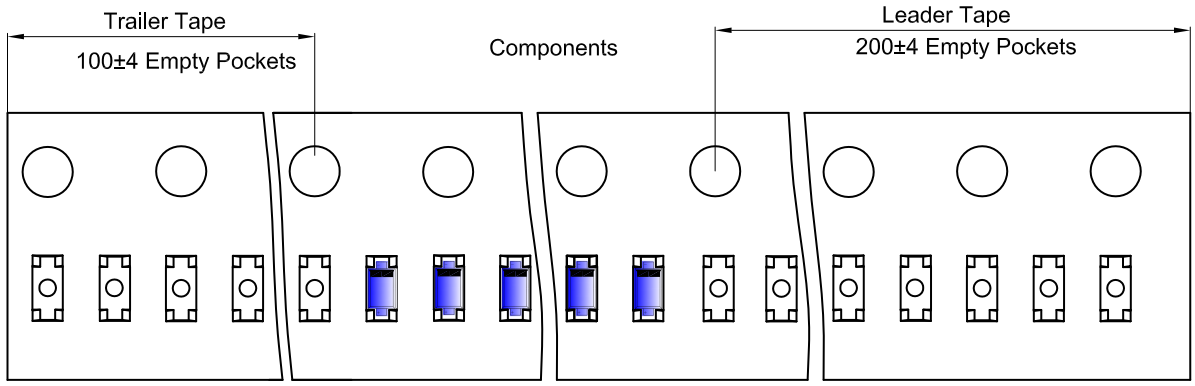


NOTE:Two types of tapes coexist side by side.

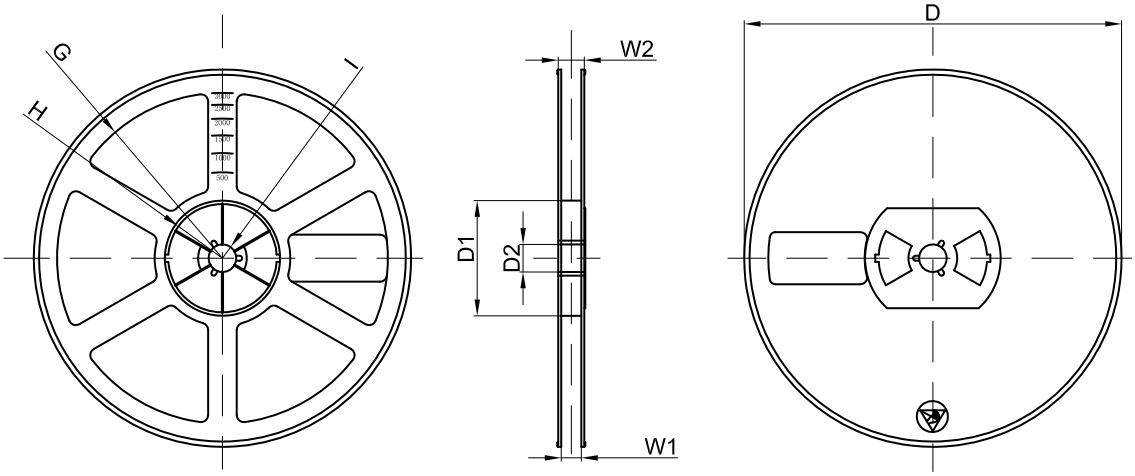
NOTE:TO CAVE 'C' ON CARRIER TAPE PER 120MM

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.9	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

SOD-523 Tape Leader and Trailer



SOD-523 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	