

Plastic-Encapsulate Diodes

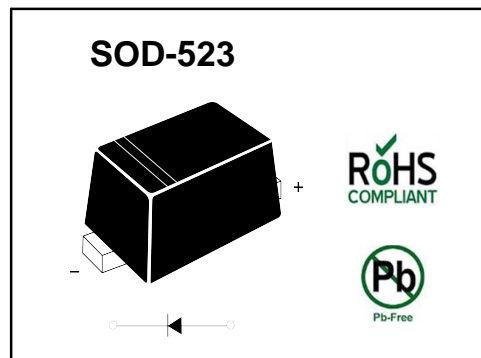
ZENER DIODE

Features

- Ideally suited for automated assembly processes
- Total power dissipation: max. 200 mW

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

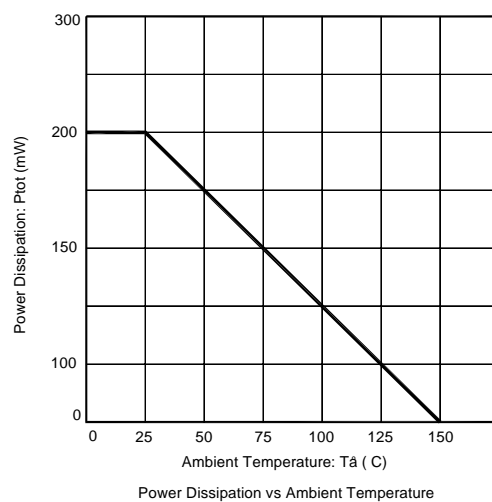
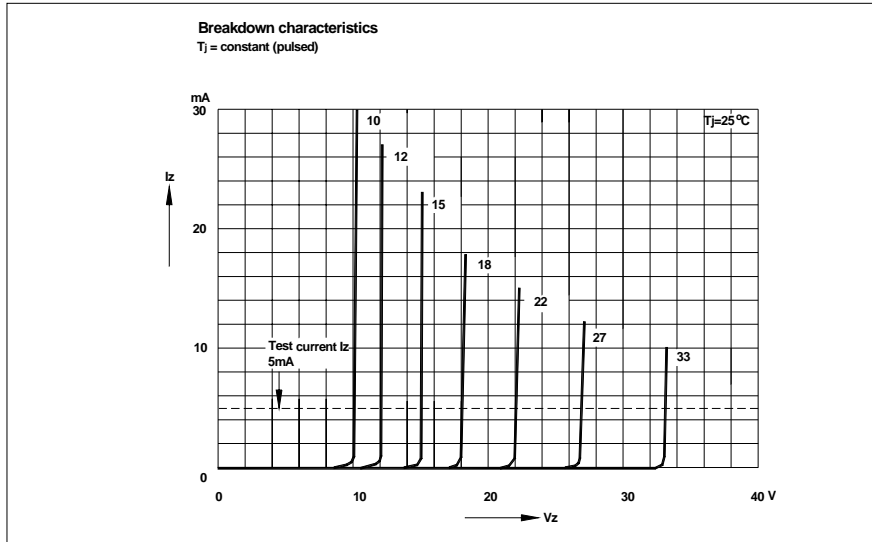
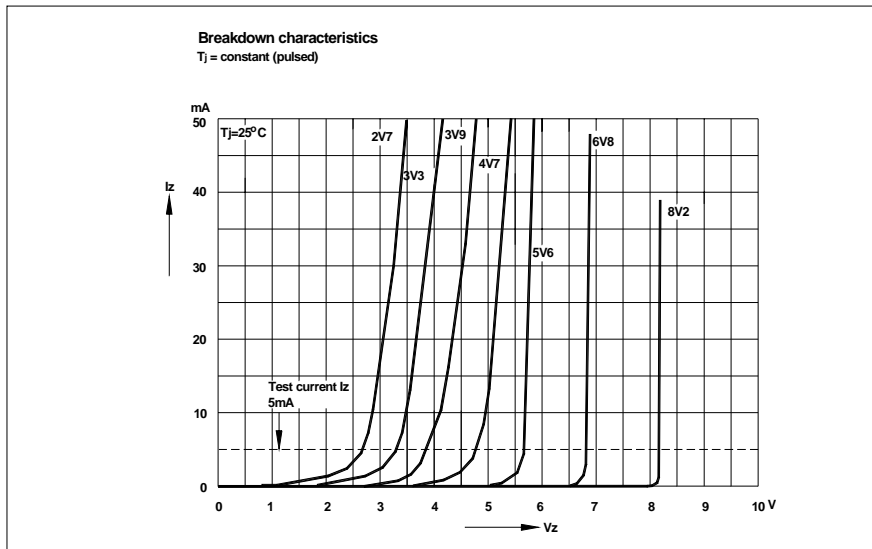
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	340	$^\circ\text{C}/\text{W}$
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	0.9	V

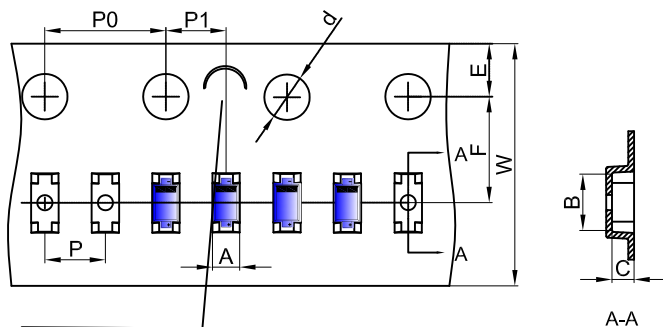
Characteristics at Ta = 25°C

Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Impedance				Reverse Leakage Current	
		V _{znom}	V _{ZT}	at I _{ZT}	Z _{ZT}	at I _{ZT}	Z _{ZK}	at I _{ZK}	I _R	at V _R
		V	V	mA	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
BZT52C2V4WT	MH	2.4	2.2...2.6	5	100	5	600	1	50	1
BZT52C2V7WT	MJ	2.7	2.5...2.9	5	100	5	600	1	20	1
BZT52C3V0WT	MK	3.0	2.8...3.2	5	95	5	600	1	10	1
BZT52C3V3WT	MM	3.3	3.1...3.5	5	95	5	600	1	5	1
BZT52C3V6WT	MN	3.6	3.4...3.8	5	90	5	600	1	5	1
BZT52C3V9WT	MP	3.9	3.7...4.1	5	90	5	600	1	3	1
BZT52C4V3WT	MR	4.3	4...4.6	5	90	5	600	1	3	1
BZT52C4V7WT	MX	4.7	4.4...5	5	80	5	500	1	3	2
BZT52C5V1WT	MY	5.1	4.8...5.4	5	60	5	480	1	2	2
BZT52C5V6WT	MZ	5.6	5.2...6	5	40	5	400	1	1	2
BZT52C6V2WT	NA	6.2	5.8...6.6	5	10	5	150	1	3	4
BZT52C6V8WT	NB	6.8	6.4...7.2	5	15	5	80	1	2	4
BZT52C7V5WT	NC	7.5	7...7.9	5	15	5	80	1	1	5
BZT52C8V2WT	ND	8.2	7.7...8.7	5	15	5	80	1	0.7	5
BZT52C9V1WT	NE	9.1	8.5...9.6	5	15	5	100	1	0.5	6
BZT52C10WT	NF	10	9.4...10.6	5	20	5	150	1	0.2	7
BZT52C11WT	NH	11	10.4...11.6	5	20	5	150	1	0.1	8
BZT52C12WT	NJ	12	11.4...12.7	5	25	5	150	1	0.1	8
BZT52C13WT	NK	13	12.4...14.1	5	30	5	170	1	0.1	8
BZT52C15WT	NM	15	13.8...15.6	5	30	5	200	1	0.1	10.5
BZT52C16WT	NN	16	15.3...17.1	5	40	5	200	1	0.1	11.2
BZT52C18WT	NP	18	16.8...19.1	5	45	5	225	1	0.1	12.6
BZT52C20WT	NR	20	18.8...21.2	5	55	5	225	1	0.1	14
BZT52C22WT	NX	22	20.8...23.3	5	55	5	250	1	0.1	15.4
BZT52C24WT	NY	24	22.8...25.6	5	70	5	250	1	0.1	16.8
BZT52C27WT	NZ	27	25.1...28.9	2	80	2	300	0.5	0.1	18.9
BZT52C30WT	PA	30	28...32	2	80	2	300	0.5	0.1	21
BZT52C33WT	PB	33	31...35	2	80	2	325	0.5	0.1	23.1
BZT52C36WT	PC	36	34...38	2	90	2	350	0.5	0.1	25.2
BZT52C39WT	PD	39	37...41	2	130	2	350	0.5	0.1	27.3
BZT52C43WT	6A	43	40...46	2.5	130	2	500	1	2	33
BZT52C47WT	6B	47	44...50	2.5	150	2	500	1	2	36
BZT52C51WT	6C	51	48...54	2.5	180	2	500	1	1	39
BZT52C56WT	6D	56	52...60	2.5	180	2	500	1	1	43
BZT52C62WT	6E	62	58...66	2.5	200	2	500	1	0.2	47
BZT52C68WT	6F	68	64...72	2.5	250	2	500	1	0.2	52
BZT52C75WT	6H	75	70...79	2.5	300	2	500	1	0.2	57

¹⁾ V_{ZT} is tested with pulses (20 ms).



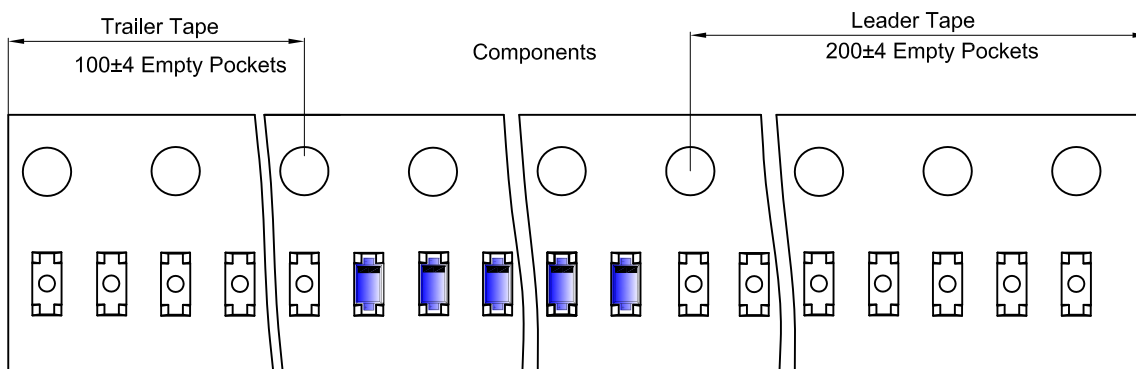
SOD-523 Embossed Carrier Tape



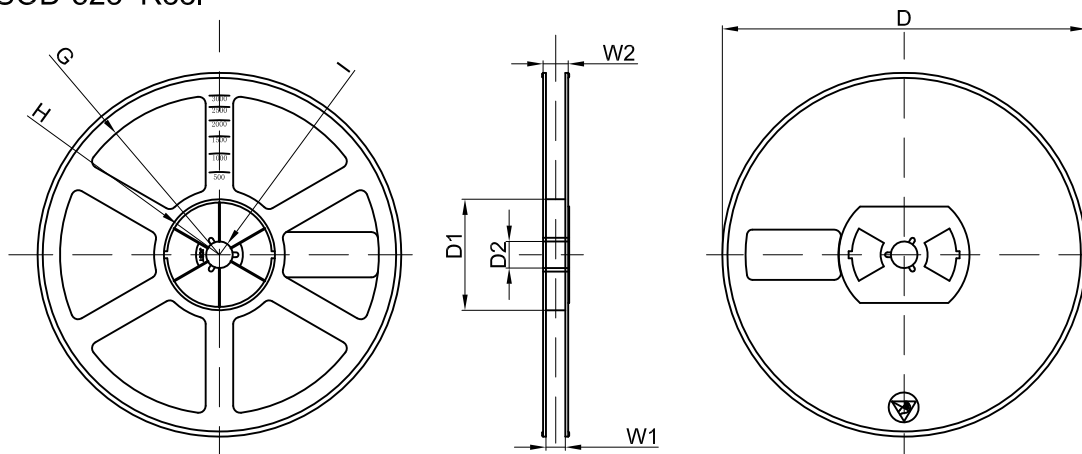
NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

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



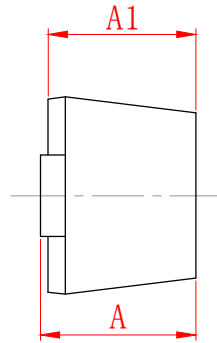
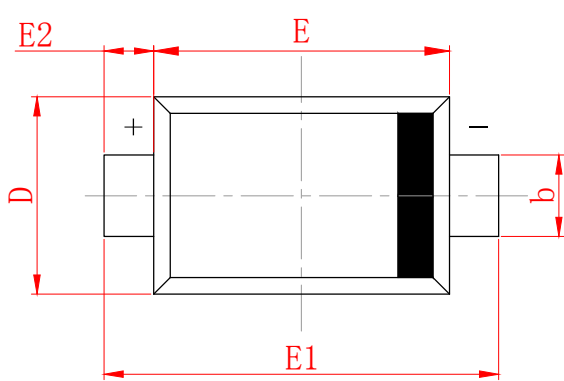
SOD-523 Reel



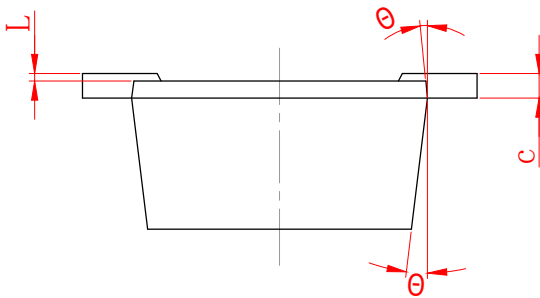
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	

SOD-523 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	



DISCLAIMER

JHG PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with JHG products. You are solely responsible for

- (1) selecting the appropriate JHG products for your application;
- (2) designing, validating and testing your application;
- (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements.

These resources are subject to change without notice. JHG grants you permission to use these resources only for development of an application that uses the JHG products described in the resource. Other reproduction and display of these resources are prohibited. No license is granted to any other JHG intellectual property right or to any third party intellectual property right. JHG disclaims responsibility for, and you will fully indemnify JHG and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.