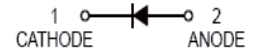
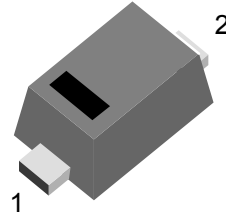


## Zener Diode in SOD-523

### Features

- Low Zener Impedance
- 200mW Power Dissipation
- High Stability and High Reliability



### Mechanical Data

- **Case:** SOD-523 (plastic package).  
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ $I_F = 10\text{mA}$	$V_F$	0.9	V
Power Dissipation(Note 1)	$P_d$	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	340	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~+150	°C

- 1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>
- 2) Short duration test pulse used to minimize self-heating effect
- 3) f=1KHz

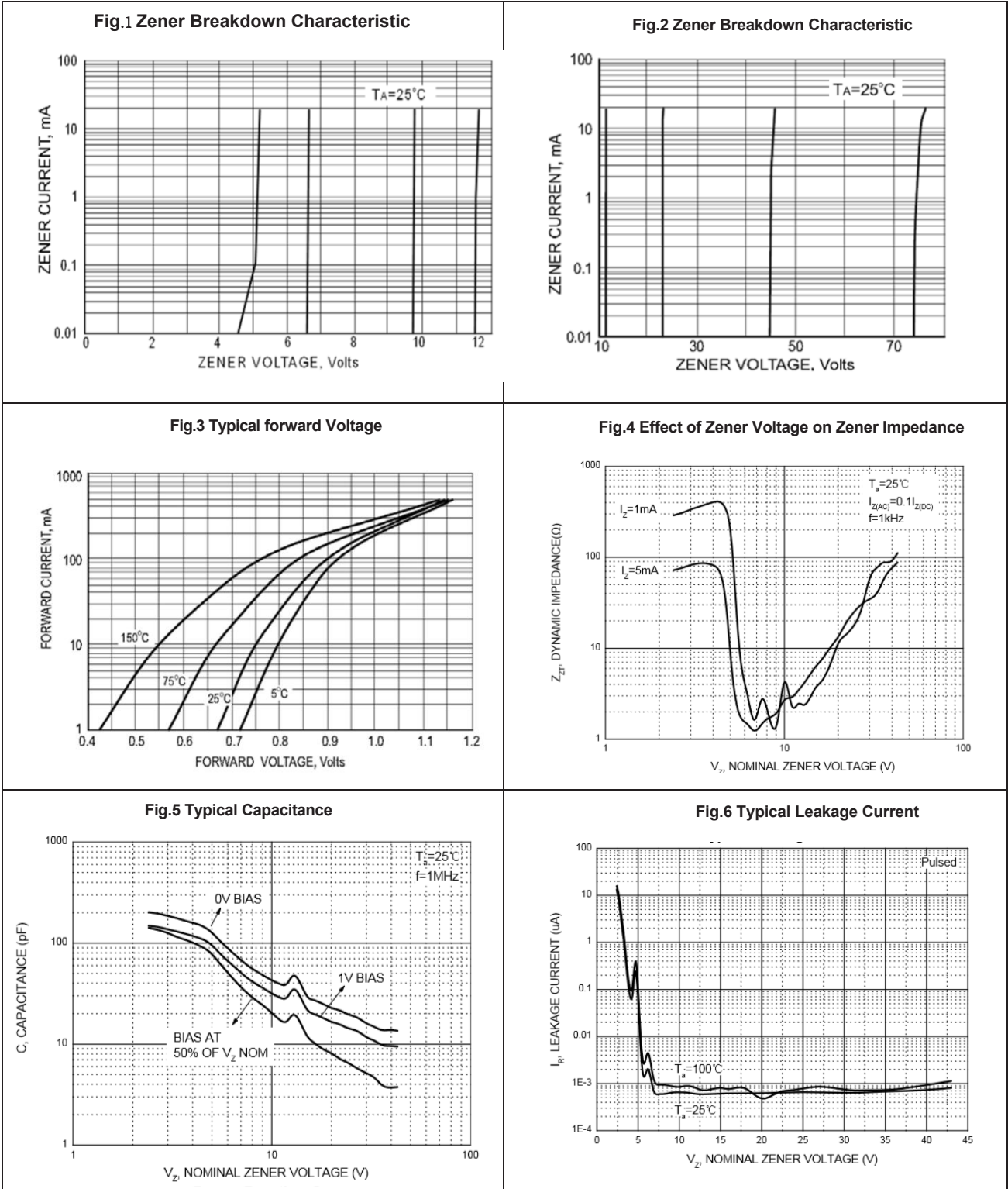
**Electrical Characteristics**

 (T<sub>A</sub> = 25 °C unless otherwise specified)

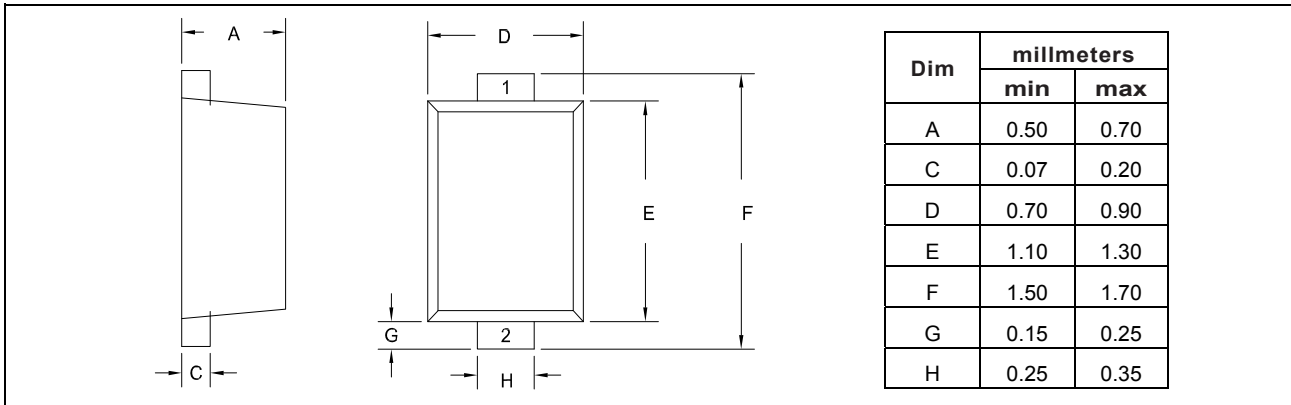
Part Number	Device Marking	V <sub>Z</sub> (V) *1			I <sub>ZT</sub> mA	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub> (mA)	I <sub>R</sub> (uA)
		Nom(V)	Min(V)	Max(V)		Ω			
CZ5D2V4B	Z1.	2.4	2.35	2.45	5	100	600	1.0	50
CZ5D2V7B	Z2.	2.7	2.65	2.75	5	100	600	1.0	20
CZ5D3V0B	Z3.	3.0	2.94	3.06	5	95	600	1.0	10
CZ5D3V3B	Z4.	3.3	3.23	3.37	5	95	600	1.0	5
CZ5D3V6B	Z5.	3.6	3.53	3.67	5	90	600	1.0	5
CZ5D3V9B	Z6.	3.9	3.82	3.98	5	90	600	1.0	3
CZ5D4V3B	Z7.	4.3	4.21	4.39	5	90	600	1.0	3
CZ5D4V7B	X1.	4.7	4.61	4.79	5	80	500	1.0	3
CZ5D5V1B	Z22	5.1	5.00	5.20	5	60	480	1.0	2
CZ5D5V6B	Z23	5.6	5.49	5.71	5	40	400	1.0	1
CZ5D6V2B	Z24	6.2	6.08	6.32	5	10	150	1.0	3
CZ5D6V8B	Z25	6.8	6.66	6.94	5	15	80	1.0	2
CZ5D7V5B	Z26	7.5	7.35	7.65	5	15	80	1.0	1
CZ5D8V2B	Z27	8.2	8.04	8.36	5	15	80	1.0	0.7
CZ5D9V1B	Z28	9.1	8.92	9.28	5	15	100	1.0	0.5
CZ5D10B	Z29	10	9.80	10.20	5	20	150	1.0	0.2
CZ5D11B	2Y1	11	10.78	11.22	5	20	150	1.0	0.1
CZ5D12B	2Y2	12	11.76	12.24	5	25	150	1.0	0.1
CZ5D13B	2Y3	13	12.74	13.26	5	30	170	1.0	0.1
CZ5D15B	2Y4	15	14.70	15.30	5	30	200	1.0	0.1
CZ5D16B	2Y5	16	15.68	16.32	5	40	200	1.0	0.1
CZ5D18B	2Y6	18	17.64	18.36	5	45	225	1.0	0.1
CZ5D20B	2Y7	20	19.60	20.40	5	55	225	1.0	0.1
CZ5D22B	W8.	22	21.56	22.44	5	55	250	1.0	0.1
CZ5D24B	W9.	24	23.52	24.48	5	70	250	1.0	0.1
CZ5D27B	Y1.	27	26.46	27.54	2	80	300	0.5	0.1
CZ5D30B	Y2.	30	29.40	30.60	2	80	300	0.5	0.1
CZ5D33B	Y3.	33	32.34	33.66	2	80	325	0.5	0.1
CZ5D36B	Y4.	36	35.28	36.72	2	90	350	0.5	0.1
CZ5D39B	Y5.	39	38.22	39.78	2	130	350	0.5	0.1
CZ5D43B	Y6.	43	42.14	43.86	2	130	350	0.5	0.1
CZ5D47B	V1.	47	45.83	48.17	2	170	1000	0.25	0.1
CZ5D51B	V2.	51	49.73	52.27	2	180	1300	0.25	0.1
CZ5D56B	V3.	56	54.60	57.40	2	200	1400	0.25	0.1
CZ5D62B	V4.	62	60.45	63.55	2	225	1400	0.25	0.1
CZ5D68B	V5.	68	66.30	69.70	2	240	1600	0.25	0.1
CZ5D75B	V6.	75	73.13	76.87	2	265	1700	0.25	0.1

 \*1 Tested with pulses t<sub>p</sub> = 20 ms.

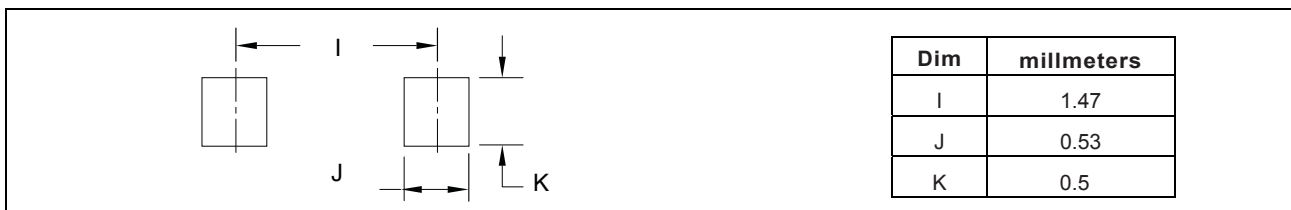
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



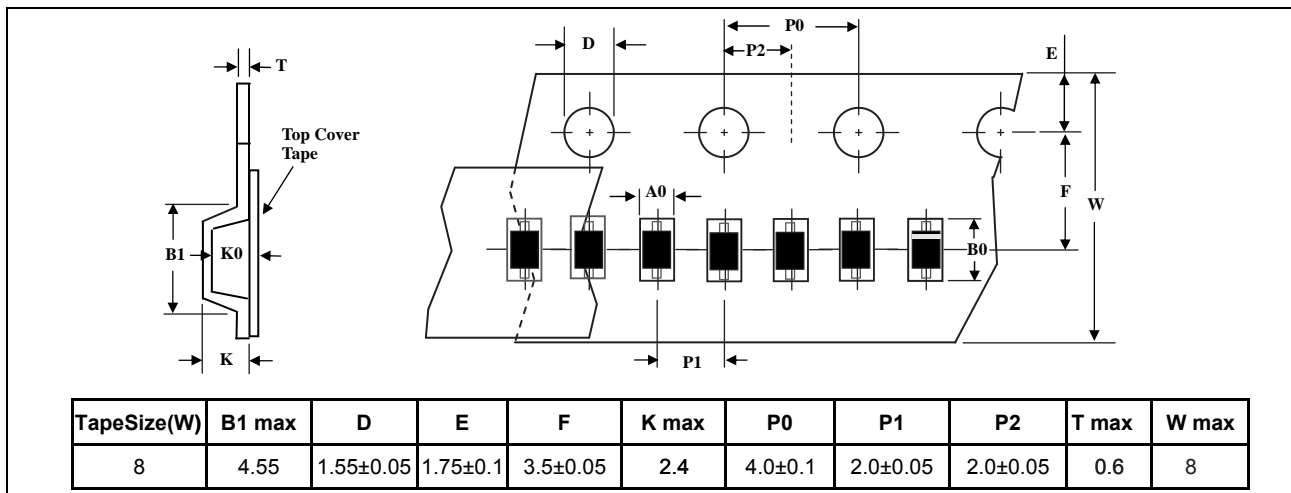
### Package Dimensions



### PAD Dimensions



### Package Information



Note: 1.unit : mm

2. A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05mm min to 0.50 mm max. The component cannot rotate more than 10° within the determined cavity.

### Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CZ5D2V4B thru CZ5D75B	SOD-523	Tape and reel	8000pcs / reel	EIA STD RS-481

### Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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