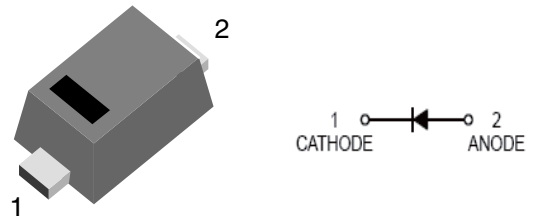


Zener Diode in SOD-523

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 25mm²
- 2) Short duration test pulse used to minimize self-heating effect
- 3) f=1KHz

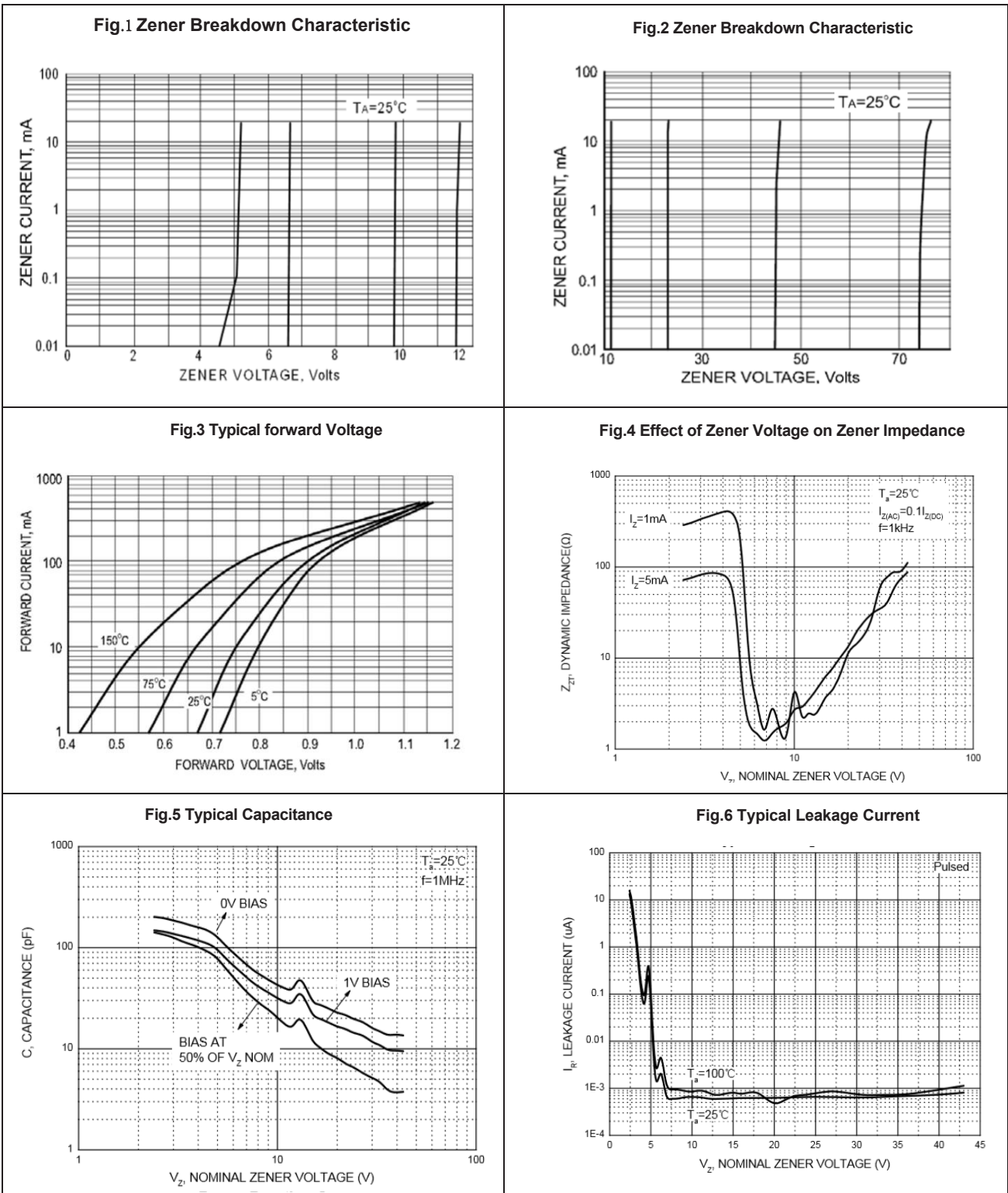
Electrical Characteristics

(T_A = 25 °C unless otherwise specified)

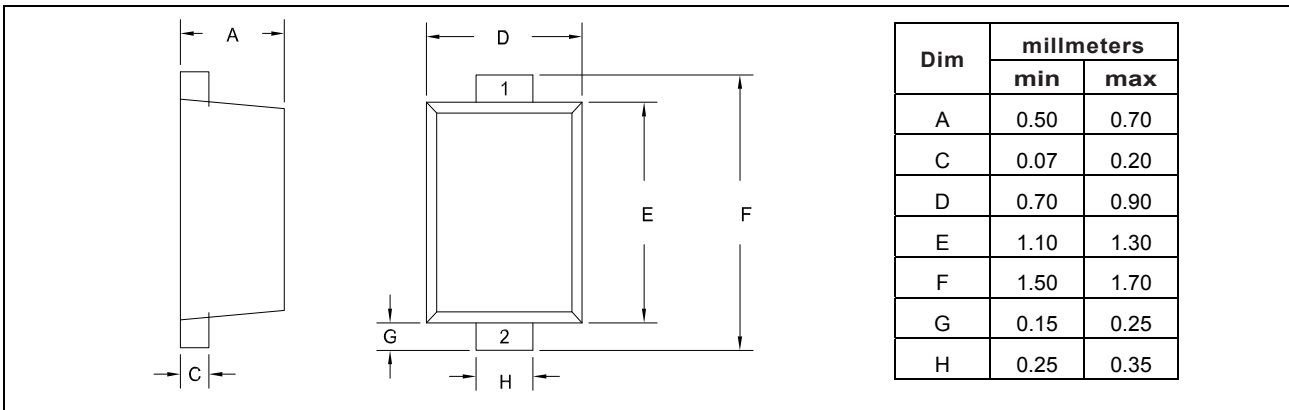
Part Number	Device Marking	V _Z (V) *1			I _{ZT} mA	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK} (mA)	I _R (uA)
		Nom(V)	Min(V)	Max(V)		Ω			
CZ5D2V4C	Z11	2.4	2.20	2.60	5	100	600	1.0	50
CZ5D2V7C	Z12	2.7	2.50	2.90	5	100	600	1.0	20
CZ5D3V0C	Z13	3.0	2.80	3.20	5	95	600	1.0	10
CZ5D3V3C	Z14	3.3	3.10	3.50	5	95	600	1.0	5
CZ5D3V6C	Z15	3.6	3.40	3.80	5	90	600	1.0	5
CZ5D3V9C	Z16	3.9	3.70	4.10	5	90	600	1.0	3
CZ5D4V3C	Z17	4.3	4.00	4.60	5	90	600	1.0	3
CZ5D4V7C	Z1	4.7	4.40	5.00	5	80	500	1.0	3
CZ5D5V1C	Z2	5.1	4.80	5.40	5	60	480	1.0	2
CZ5D5V6C	Z3	5.6	5.20	6.00	5	40	400	1.0	1
CZ5D6V2C	Z4	6.2	5.80	6.60	5	10	150	1.0	3
CZ5D6V8C	Z5	6.8	6.40	7.20	5	15	80	1.0	2
CZ5D7V5C	Z6	7.5	7.00	7.90	5	15	80	1.0	1
CZ5D8V2C	Z7	8.2	7.70	8.70	5	15	80	1.0	1
CZ5D9V1C	Z8	9.1	8.50	9.60	5	15	100	1.0	1
CZ5D10C	Z9	10.0	9.40	10.60	5	20	150	1.0	0
CZ5D11C	Y1	11.0	10.40	11.60	5	20	150	1.0	0
CZ5D12C	Y2	12.0	11.40	12.70	5	25	150	1.0	0
CZ5D13C	Y3	13.0	12.40	14.10	5	30	170	1.0	0
CZ5D15C	Y4	15.0	13.80	15.60	5	30	200	1.0	0
CZ5D16C	Y5	16.0	15.30	17.10	5	40	200	1.0	0
CZ5D18C	Y6	18.0	16.80	19.10	5	45	225	1.0	0
CZ5D20C	Y7	20.0	18.80	21.20	5	55	225	1.0	0
CZ5D22C	Y8	22.0	20.80	23.30	5	55	250	1.0	0
CZ5D24C	Y9	24.0	22.80	25.60	5	70	250	1.0	0
CZ5D27C	Y10	27.0	25.10	28.90	2	80	300	0.5	0
CZ5D30C	Y11	30.0	28.00	32.00	2	80	300	0.5	0
CZ5D33C	Y12	33.0	31.00	35.00	2	80	325	0.5	0
CZ5D36C	Y13	36.0	34.00	38.00	2	90	350	0.5	0
CZ5D39C	Y14	39.0	37.00	41.00	2	130	350	0.5	0
CZ5D43C	Y15	43.0	40.00	46.00	2	100	700	1.0	0
CZ5D47C	V1	47.0	44.65	49.35	2	170	1000	0.3	0
CZ5D51C	V2	51.0	48.45	53.55	2	180	1300	0.3	0
CZ5D56C	V3	56.0	53.20	58.80	2	200	1400	0.3	0
CZ5D62C	V4	62.0	58.90	65.10	2	225	1400	0.3	0
CZ5D68C	V5	68.0	64.60	71.40	2	240	1600	0.3	0
CZ5D75C	V6	75.0	71.25	78.75	2	265	1700	0.3	0

*1 Pulse width = 10 ms

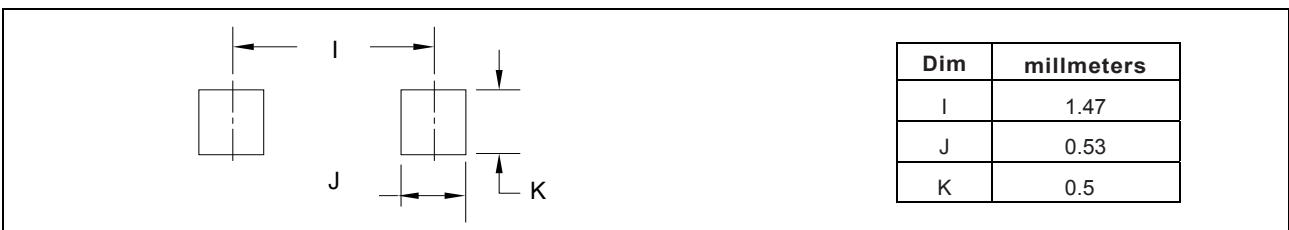
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



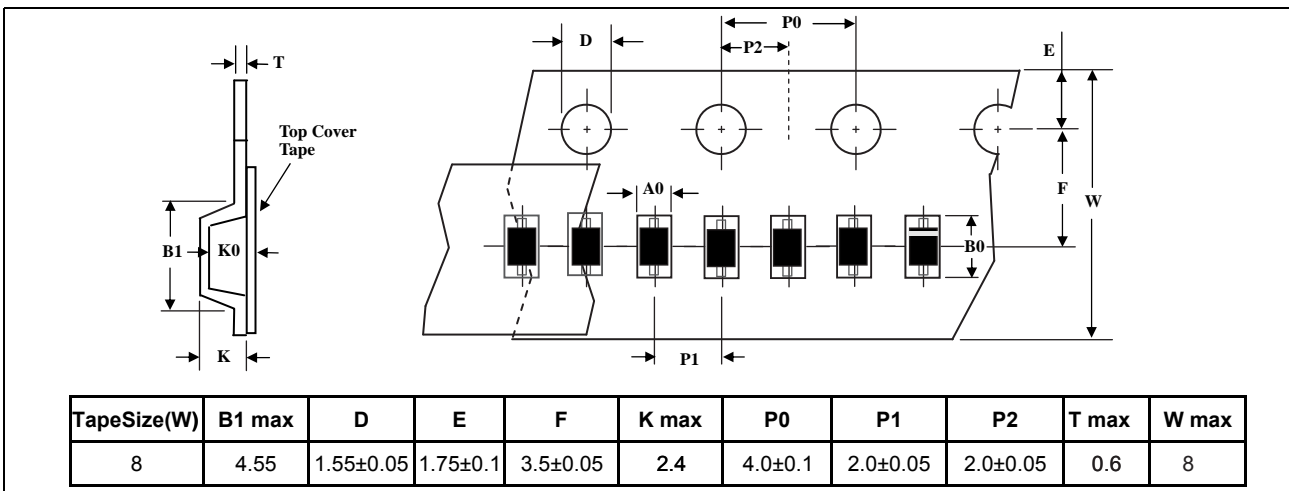
Package Dimensions



PAD Dimensions



PAD Dimensions



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
CZ5D2V4C thur CZ5D75C	SOD-523	Tape and reel	8000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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