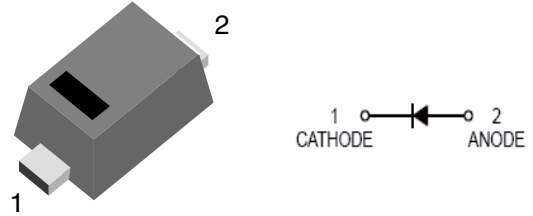


Zener Diode in SOD-523

Features

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



Mechanical Data

- **Case:** SOD-523 (plastic package).
Lead free; RoHS compliant
- **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

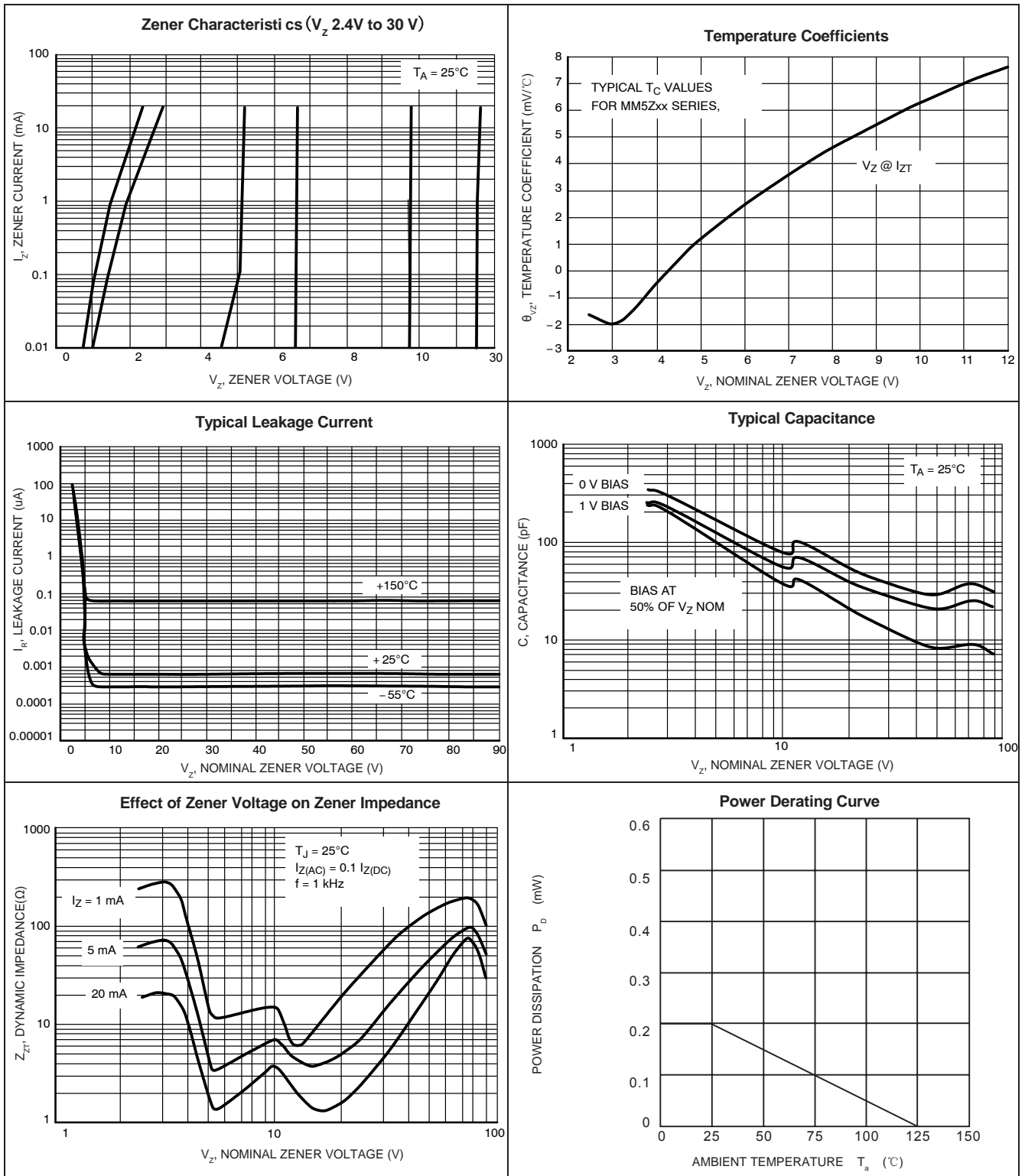
Electrical Characteristics

 (T_A = 25 °C unless otherwise specified)

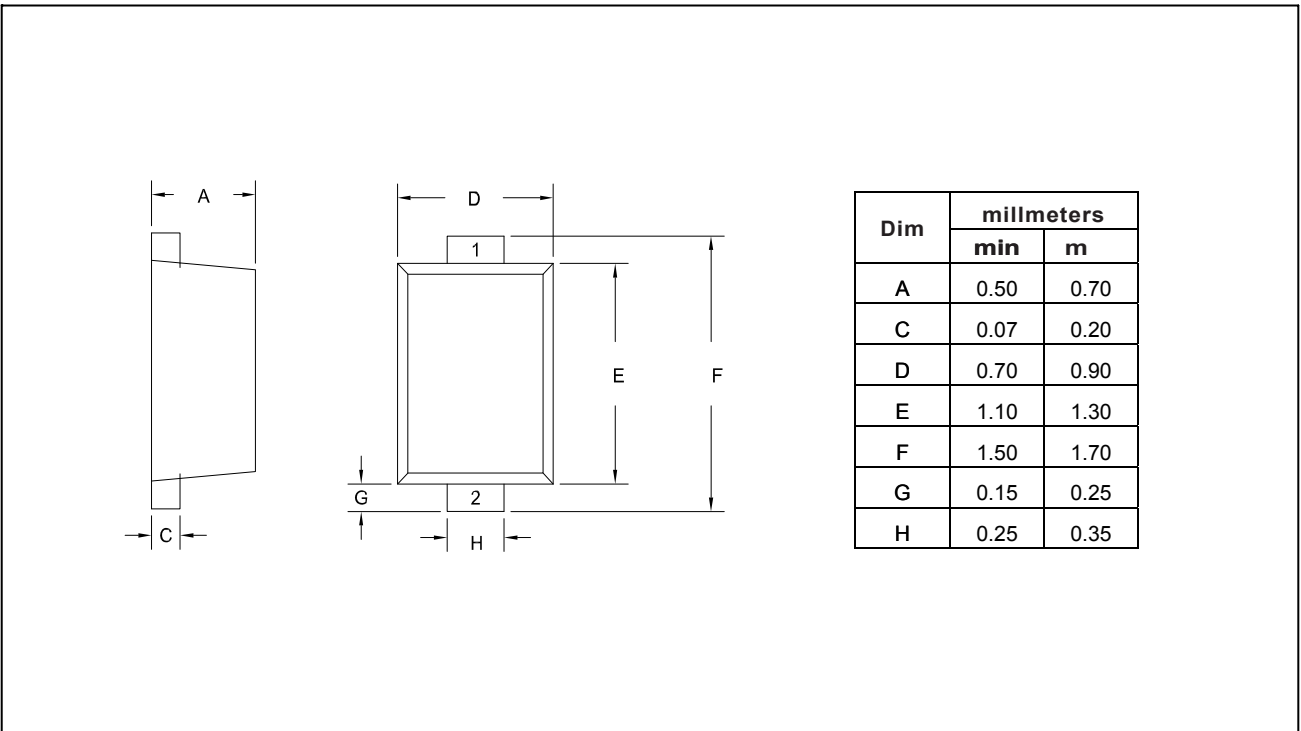
Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Impedance		Reverse Leakage Current	
		V _{znom} V	I _{ZT} mA	for V _{ZT} V	Z _{ZT} (Max.) Ω	at I _Z mA	I _R (Max.) μA	at V _R V
CZ5D2V4B	XY	2.4	5	2.352...2.448	100	5	120	1
CZ5D2V7B	XZ	2.7	5	2.646...2.754	110	5	120	1
CZ5D3V0B	FR	3.0	5	2.94...3.06	120	5	50	1
CZ5D3V3B	FX	3.3	5	3.234...3.366	130	5	20	1
CZ5D3V6B	FY	3.6	5	3.528...3.672	130	5	10	1
CZ5D3V9B	FZ	3.9	5	3.822...3.978	130	5	5	1
CZ5D4V3B	HA	4.3	5	4.214...4.386	130	5	5	1
CZ5D4V7B	HB	4.7	5	4.606...4.794	130	5	2	1
CZ5D5V1B	HC	5.1	5	4.998...5.202	130	5	2	1.5
CZ5D5V6B	HD	5.6	5	5.488...5.712	80	5	1	2.5
CZ5D6V2B	HE	6.2	5	6.076...6.324	50	5	1	3
CZ5D6V8B	HF	6.8	5	6.664...6.936	30	5	0.5	3.5
CZ5D7V5B	HH	7.5	5	7.35...7.65	30	5	0.5	4
CZ5D8V2B	HJ	8.2	5	8.036...8.364	30	5	0.5	5
CZ5D9V1B	HK	9.1	5	8.918...9.282	30	5	0.5	6
CZ5D10VB	HM	10	5	9.8...10.2	30	5	0.1	7
CZ5D11VB	HN	11	5	10.78...11.22	30	5	0.1	8
CZ5D12VB	HP	12	5	11.76...12.24	35	5	0.1	9
CZ5D13VB	HR	13	5	12.74...13.26	35	5	0.1	10
CZ5D15VB	HX	15	5	14.7...15.3	40	5	0.1	11
CZ5D16VB	HY	16	5	15.68...16.32	40	5	0.1	12
CZ5D18VB	HZ	18	5	17.64...18.36	45	5	0.1	13
CZ5D20VB	JA	20	5	19.6...20.4	50	5	0.1	15
CZ5D22VB	JB	22	5	21.56...22.44	55	5	0.1	17
CZ5D24VB	JC	24	5	23.52...24.48	60	5	0.1	19
CZ5D27VB	JD	27	5	26.46...27.54	70	2	0.1	21
CZ5D30VB	JE	30	5	29.4...30.6	80	2	0.1	23
CZ5D33VB	JF	33	5	32.34...33.66	80	2	0.1	25
CZ5D36VB	JH	36	5	35.28...36.72	90	2	0.1	27
CZ5D39VB	JJ	39	2.5	38.22...39.78	100	2	2	30
CZ5D43VB	JK	43	2.5	42.14...43.86	130	2	2	33
CZ5D47VB	JM	47	2.5	46.06...47.94	150	2	2	36
CZ5D51VB	YA	51	2.5	49.98...52.02	180	2	1	39
CZ5D56VB	YB	56	2.5	54.88...57.12	180	2	1	43
CZ5D62VB	YC	62	2.5	60.76...63.24	200	2	0.2	47
CZ5D68VB	YD	68	2.5	66.64...69.36	250	2	0.2	52
CZ5D75VB	YE	75	2.5	73.5...76.5	300	2	0.2	57

¹⁾ Tested with pulses tp = 20 ms.

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



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CZ5D2V4B thru CZ5D75VB	SOD-523	Tape and reel	4000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

CAUTION / WARNING

Information in this document is believed to be accurate and reliable. However, RDSEMI does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information.

Users should independently evaluate the suitability of and test each product selected for their own applications, and RDSEMI assumes no liability what's ever relating to the choice, selection or use of the RDSEMI products and services described herein.

RDSEMI reserves the right to change or update, without notice, any information contained in this publication; to change, without notice, the design, construction, processing, or specification of any product; and to discontinue or limit production or distribution of any product.

Information in this document supersedes and replaces all information previously supplied.

Products are not designed, authorized or warranted to be suitable for use in medical, military, aircraft, space or life support equipment, nor in applications where failure or malfunction of an RDSEMI product can reasonably be expected to result in personal injury, death or severe property or environmental damage. RDSEMI accepts no liability for inclusion and/or use of RDSEMI products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from national authorities.

Resale of RDSEMI products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by RDSEMI for the RDSEMI product or service described herein and shall not create or extend in any manner whatsoever, any liability of RDSEMI.

RDSEMI expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. RDSEMI only obligations are those in the RDSEMI Standard Terms and Conditions of Sale and in no case will RDSEMI be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.

Specifications are subject to change without notice
© Copyright 2020, DaJing Semiconductor
All rights reserved