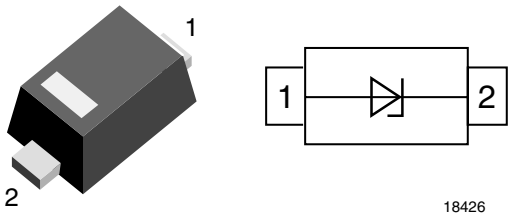
Small Signal Zener Diodes

Features

- With the BZX584C..-02V series vishay offers a Z-Diode in the tiny SOD-523 plastic package. Made for space sensitive applications the BZX584C..-02V series has a zener voltage tolerance of ± 5 %.
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

RoHS COMPLIANT



Mechanical Data

Case: SOD-523

Weight: approx. 1.6 mg

Packaging codes/options:

GS08/3 k per 7" reel (8 mm tape), 15 k/box

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation		P_{tot}	200 [1]	mW

Note:
[1] Device on fiberglass substrate

Thermal Characteristics

T_{amb} = 25 °C, unless otherwise specified

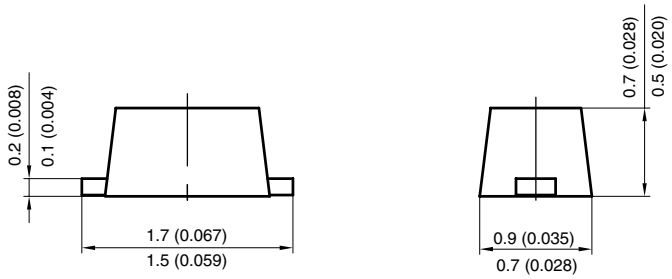
Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	680 [1]	K/W
Thermal resistance junction to soldering point		R_{thJS}	100	K/W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	- 65 to + 150	°C

Note:
[1] Device on fiberglass substrate

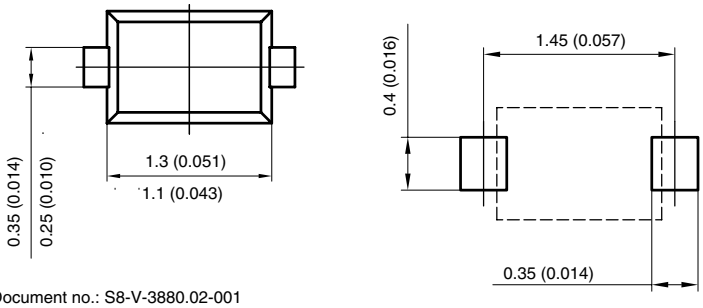
Electrical Characteristics

Part number	Marking code	Zener voltage range		Dynamic resistance		Test current	Temp. coefficient of zener voltage		Test current	Reverse leakage current	
		V_Z at 5 mA		r_{zj} at I_{ZT1}	r_{zj} at I_{ZT2}	I_{ZT1}	α_{VZ} at 5 mA		I_{ZT2}	I_R	at V_R
		V		Ω		mA	10^{-4}/°C		mA	µA	V
		min	max				min	max			
BZX584C2V4-02V	2	2.2	2.6	70 (≤ 100)	275 (≤ 600)	5	- 9	- 4	1	50	1
BZX584C2V7-02V	3	2.5	2.9	75 (≤ 100)	300 (≤ 600)	5	- 9	- 4	1	20	1
BZX584C3V0-02V	4	2.8	3.2	80 (≤ 95)	325 (≤ 600)	5	- 9	- 3	1	10	1
BZX584C3V3-02V	5	3.1	3.5	85 (≤ 95)	350 (≤ 600)	5	- 8	- 3	1	5	1
BZX584C3V6-02V	6	3.4	3.8	85 (≤ 90)	375 (≤ 600)	5	- 8	- 3	1	5	1
BZX584C3V9-02V	7	3.7	4.1	85 (≤ 90)	400 (≤ 600)	5	- 7	- 3	1	3	1
BZX584C4V3-02V	8	4	4.6	80 (≤ 90)	410 (≤ 600)	5	- 6	- 1	1	3	1
BZX584C4V7-02V	9	4.4	5	50 (≤ 80)	425 (≤ 500)	5	- 5	+ 2	1	3	2
BZX584C5V1-02V	1	4.8	5.4	40 (≤ 60)	400 (≤ 480)	5	- 3	+ 4	1	2	2
BZX584C5V6-02V	0	5.2	6	15 (≤ 40)	80 (≤ 400)	5	- 2	+ 6	1	1	2
BZX584C6V2-02V	ı	5.8	6.6	6 (≤ 10)	40 (≤ 150)	5	- 1	+ 7	1	3	4
BZX584C6V8-02V	2	6.4	7.2	6 (≤ 15)	30 (≤ 80)	5	+ 2	+ 7	1	2	4
BZX584C7V5-02V	3	7	7.9	6 (≤ 15)	30 (≤ 80)	5	+ 3	+ 7	1	1	5
BZX584C8V2-02V	⊥	7.7	8.7	6 (≤ 15)	40 (≤ 80)	5	+ 4	+ 7	1	0.7	5
BZX584C9V1-02V	S	8.5	9.6	6 (≤ 15)	40 (≤ 100)	5	+ 5	+ 8	1	0.5	6
BZX584C10-02V	R	9.4	10.6	8 (≤ 20)	50 (≤ 150)	5	+ 5	+ 8	1	0.2	7
BZX584C11-02V	P	10.4	11.6	10 (≤ 20)	50 (≤ 150)	5	+ 5	+ 9	1	0.1	8
BZX584C12-02V	7	11.4	12.7	10 (≤ 25)	50 (≤ 150)	5	+ 6	+ 9	1	0.1	8
BZX584C13-02V	5	12.4	14.1	10 (≤ 30)	50 (≤ 170)	5	+ 7	+ 9	1	0.1	8
BZX584C15-02V	4	13.8	15.6	10 (≤ 30)	50 (≤ 200)	5	+ 7	+ 9	1	0.1	8
BZX584C16-02V	ı	15.3	17.1	10 (≤ 40)	50 (≤ 200)	5	+ 8	+ 9.5	1	0.05	0.7 V_{Znom}
BZX584C18-02V	2	16.8	19.1	10 (≤ 45)	50 (≤ 225)	5	+ 8	+ 9.5	1	0.05	0.7 V_{Znom}
BZX584C20-02V	4	18.8	21.2	15 (≤ 55)	60 (≤ 225)	5	+ 8	+ 10	1	0.05	0.7 V_{Znom}
BZX584C22-02V	ſ	20.8	23.3	20 (≤ 55)	60 (≤ 250)	5	+ 8	+ 10	1	0.05	0.7 V_{Znom}
BZX584C24-02V	2	22.8	25.6	25 (≤ 70)	60 (≤ 250)	5	+ 8	+ 10	1	0.05	0.7 V_{Znom}
BZX584C27-02V	7	25.1	28.9	25 (≤ 80)	65 (≤ 300)	2	+ 8	+ 10	0.5	0.05	0.7 V_{Znom}
BZX584C30-02V	K	28	32	30 (≤ 80)	70 (≤ 300)	2	+ 8	+ 10	0.5	0.05	0.7 V_{Znom}
BZX584C33-02V	9	31	35	35 (≤ 80)	75 (≤ 325)	2	+ 8	+ 10	0.5	0.05	0.7 V_{Znom}
BZX584C36-02V	9	34	38	35 (≤ 90)	80 (≤ 350)	2	+ 8	+ 10	0.5	0.05	0.7 V_{Znom}
BZX584C39-02V	Я	37	41	40 (≤ 130)	80 (≤ 350)	2	+ 10	+ 12	0.5	0.05	0.7 V_{Znom}
BZX584C43-02V	ſ	40	46	45 (≤ 150)	85 (≤ 375)	2	+ 10	+ 12	0.5	0.05	0.7 V_{Znom}
BZX584C47-02V	L	44	50	50 (≤ 170)	85 (≤ 375)	2	+ 10	+ 12	0.5	0.05	0.7 V_{Znom}
BZX584C51-02V	M	48	54	60 (≤ 180)	85 (≤ 400)	2	+ 10	+ 12	0.5	0.05	0.7 V_{Znom}

Package Dimensions in millimeters (inches): SOD-523



Foot print recommendation:



Document no.: S8-V-3880.02-001
Rev. f - Date: 25. January. 2005
16864

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