

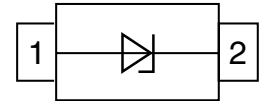
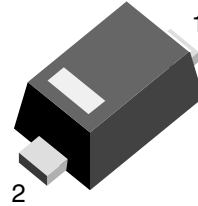
Small Signal Zener Diodes

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 $\pm 5\%$.
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT



18426

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

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

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

Note:

¹⁾ Device on fiberglass substrate

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, 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	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

Note:

¹⁾ Device on fiberglass substrate

BZX584C-02V Series

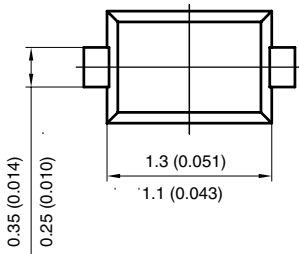


Vishay Semiconductors

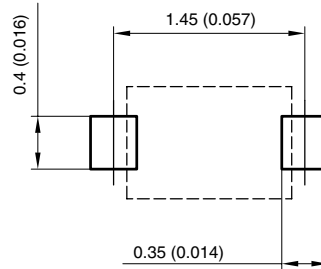
Electrical Characteristics

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	$10^{-4}/^{\circ}\text{C}$		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	1	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	4	7.7	8.7	6 (≤ 15)	40 (≤ 80)	5	+4	+7	1	0.7	5
BZX584C9V1-02V	5	8.5	9.6	6 (≤ 15)	40 (≤ 100)	5	+5	+8	1	0.5	6
BZX584C10-02V	6	9.4	10.6	8 (≤ 20)	50 (≤ 150)	5	+5	+8	1	0.2	7
BZX584C11-02V	7	10.4	11.6	10 (≤ 20)	50 (≤ 150)	5	+5	+9	1	0.1	8
BZX584C12-02V	8	11.4	12.7	10 (≤ 25)	50 (≤ 150)	5	+6	+9	1	0.1	8
BZX584C13-02V	9	12.4	14.1	10 (≤ 30)	50 (≤ 170)	5	+7	+9	1	0.1	8
BZX584C15-02V	0	13.8	15.6	10 (≤ 30)	50 (≤ 200)	5	+7	+9	1	0.1	8
BZX584C16-02V	1	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	3	18.8	21.2	15 (≤ 55)	60 (≤ 225)	5	+8	+10	1	0.05	$0.7 V_{Znom}$
BZX584C22-02V	4	20.8	23.3	20 (≤ 55)	60 (≤ 250)	5	+8	+10	1	0.05	$0.7 V_{Znom}$
BZX584C24-02V	5	22.8	25.6	25 (≤ 70)	60 (≤ 250)	5	+8	+10	1	0.05	$0.7 V_{Znom}$
BZX584C27-02V	6	25.1	28.9	25 (≤ 80)	65 (≤ 300)	2	+8	+10	0.5	0.05	$0.7 V_{Znom}$
BZX584C30-02V	7	28	32	30 (≤ 80)	70 (≤ 300)	2	+8	+10	0.5	0.05	$0.7 V_{Znom}$
BZX584C33-02V	8	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	0	37	41	40 (≤ 130)	80 (≤ 350)	2	+10	+12	0.5	0.05	$0.7 V_{Znom}$
BZX584C43-02V	1	40	46	45 (≤ 150)	85 (≤ 375)	2	+10	+12	0.5	0.05	$0.7 V_{Znom}$
BZX584C47-02V	2	44	50	50 (≤ 170)	85 (≤ 375)	2	+10	+12	0.5	0.05	$0.7 V_{Znom}$
BZX584C51-02V	3	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:



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