

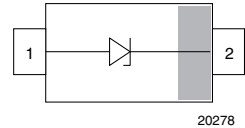
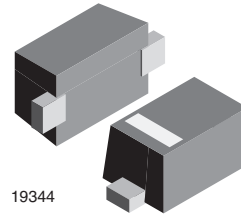
## Small Signal Zener Diodes

### Features

- With the BZX584C...-V-G-Series Vishay offers a Z-diode in the tiny SOD-523 plastic package. Made for space sensitive applications the BZX584C...-V-G-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  
**GREEN**  
(5-2008)\*\*



### Mechanical Data

**Case:** SOD-523

**Weight:** approx. 1.4 mg

**Molding compound flammability rating:**  
UL 94 V-0

**Terminals:** high temperature soldering guaranteed:  
260 °C/10 s at terminals

**Packaging codes/options:**

08/3K per 7" reel (8 mm tape), 15K/box

### Parts Table

Part	Ordering code	Type marking	Remarks
BZX584Cxxx-V-G	BZX584Cxxx-V-G-08	See table on page 2	Tape and reel

Note:

xxx stands for any part number/voltage group, as shown in the table of page 2

### Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Power dissipation		$P_{tot}$	200 <sup>1)</sup>	mW

Note:

<sup>1)</sup> Device on fiberglass substrate

### Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		$R_{thJA}$	680 <sup>1)</sup>	K/W
Junction temperature		$T_j$	150	°C
Storage temperature range		$T_{stg}$	- 65 to + 150	°C

Note:

<sup>1)</sup> Device on fiberglass substrate

\*\* Please see document "Vishay Material Category Policy": [www.vishay.com/doc?99902](http://www.vishay.com/doc?99902)

# BZX584C-V-G-Series

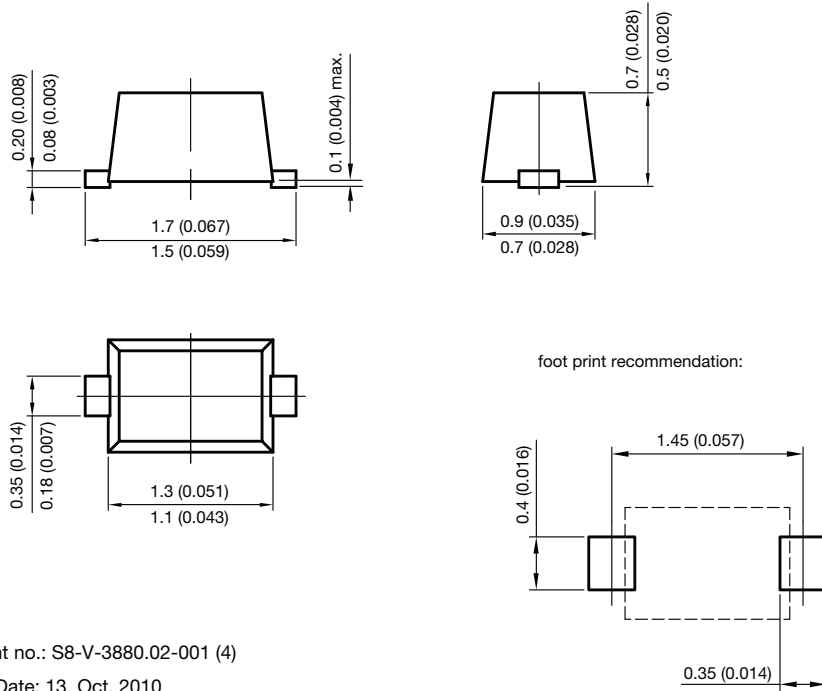


Vishay Semiconductors

## Electrical Characteristics

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

**Package Dimensions** in millimeters (inches): **SOD-523**



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