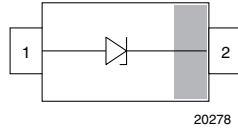


## Small Signal Zener Diodes



### 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  $\pm 5\%$
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
$V_Z$ range nom.	2.4 to 51	V
Test current $I_{ZT}$	2; 5	mA
$V_Z$ specification	Pulse current	
Int. construction	Single	

ORDERING INFORMATION			
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
BZX584Cxxx-V-G-series	BZX584Cxxx-V-G-series-08	3000 (8 mm tape on 7" reel)	15 000

#### Note

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

PACKAGE				
PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
SOD-523	1.4 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

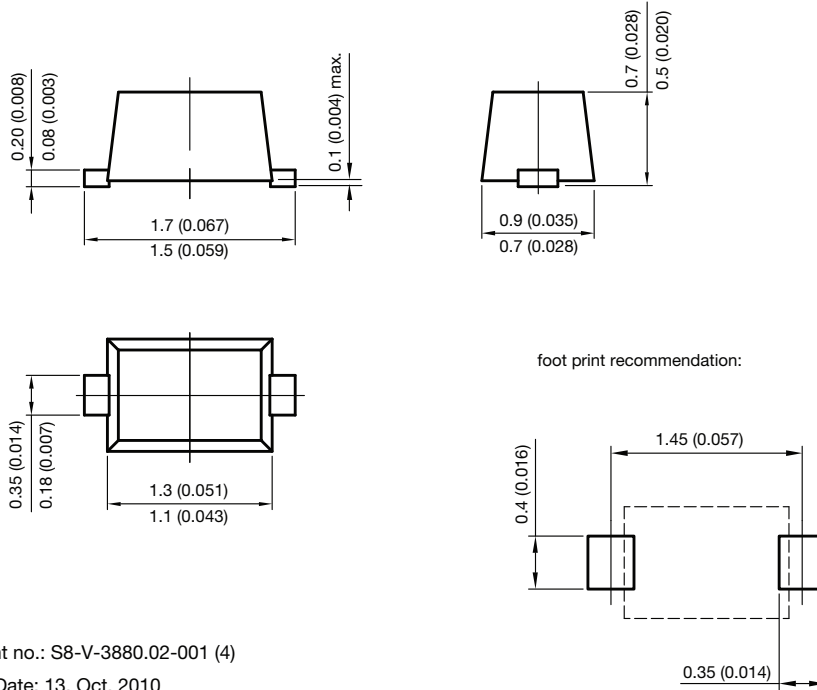
ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ °C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Power dissipation	Device on fiberglass substrate	$P_{tot}$	200	mW
Thermal resistance junction to ambient air	Device on fiberglass substrate	$R_{thJA}$	680	K/W
Junction temperature		$T_j$	150	°C
Storage temperature range		$T_{stg}$	- 65 to + 150	°C



ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)												
PART NUMBER	MARKING CODE	ZENER VOLTAGE RANGE			TEST CURRENT		REVERSE LAKEAGE CURRENT		DYNAMIC RESISTANCE		TEMPERATURE COEFFICIENT OF ZENER VOLTAGE	
		V <sub>Z</sub> at I <sub>ZT1</sub>			I <sub>ZT1</sub>	I <sub>ZT2</sub>	I <sub>R</sub> at V <sub>R</sub>		Z <sub>Z</sub> at I <sub>ZT1</sub>	Z <sub>ZK</sub> at I <sub>ZT2</sub>	α <sub>VZ</sub> at I <sub>ZT1</sub>	
		V			mA		μA	V	Ω		10 <sup>-4</sup> /°C	
		MIN.	NOM.	MAX.			MAX.		MAX.	MAX.	MIN.	MAX.
BZX584C2V4-V-G	.2	2.2	2.4	2.6	5	1	50	1	70 (≤ 100)	275 (≤ 600)	- 9	- 4
BZX584C2V7-V-G	.3	2.5	2.7	2.9	5	1	20	1	75 (≤ 100)	300 (≤ 600)	- 9	- 4
BZX584C3V0-V-G	.4	2.8	3.0	3.2	5	1	10	1	80 (≤ 95)	325 (≤ 600)	- 9	- 3
BZX584C3V3-V-G	.5	3.1	3.3	3.5	5	1	5	1	85 (≤ 95)	350 (≤ 600)	- 8	- 3
BZX584C3V6-V-G	.6	3.4	3.6	3.8	5	1	5	1	85 (≤ 90)	375 (≤ 600)	- 8	- 3
BZX584C3V9-V-G	.7	3.7	3.9	4.1	5	1	3	1	85 (≤ 90)	400 (≤ 600)	- 7	- 3
BZX584C4V3-V-G	.8	4	4.3	4.6	5	1	3	1	80 (≤ 90)	410 (≤ 600)	- 6	- 1
BZX584C4V7-V-G	.9	4.4	4.7	5	5	1	3	2	50 (≤ 80)	425 (≤ 500)	- 5	2
BZX584C5V1-V-G	.1	4.8	5.1	5.4	5	1	2	2	40 (≤ 60)	400 (≤ 480)	- 3	4
BZX584C5V6-V-G	.0	5.2	5.6	6	5	1	1	2	15 (≤ 40)	80 (≤ 400)	- 2	6
BZX584C6V2-V-G	.1	5.8	6.2	6.6	5	1	3	4	6 (≤ 10)	40 (≤ 150)	- 1	7
BZX584C6V8-V-G	.2	6.4	6.8	7.2	5	1	2	4	6 (≤ 15)	30 (≤ 80)	2	7
BZX584C7V5-V-G	.3	7	7.5	7.9	5	1	1	5	6 (≤ 15)	30 (≤ 80)	3	7
BZX584C8V2-V-G	.4	7.7	8.2	8.7	5	1	0.7	5	6 (≤ 15)	40 (≤ 80)	4	7
BZX584C9V1-V-G	.5	8.5	9.1	9.6	5	1	0.5	6	6 (≤ 15)	40 (≤ 100)	5	8
BZX584C10-V-G	.6	9.4	10	10.6	5	1	0.2	7	8 (≤ 20)	50 (≤ 150)	5	8
BZX584C11-V-G	.7	10.4	11	11.6	5	1	0.1	8	10 (≤ 20)	50 (≤ 150)	5	9
BZX584C12-V-G	.8	11.4	12	12.7	5	1	0.1	8	10 (≤ 25)	50 (≤ 150)	6	9
BZX584C13-V-G	.9	12.4	13	14.1	5	1	0.1	8	10 (≤ 30)	50 (≤ 170)	7	9
BZX584C15-V-G	.1	13.8	15	15.6	5	1	0.1	8	10 (≤ 30)	50 (≤ 200)	7	9
BZX584C16-V-G	.2	15.3	16	17.1	5	1	0.05	0.7 V <sub>Znom.</sub>	10 (≤ 40)	50 (≤ 200)	8	9.5
BZX584C18-V-G	.3	16.8	18	19.1	5	1	0.05	0.7 V <sub>Znom.</sub>	10 (≤ 45)	50 (≤ 225)	8	9.5
BZX584C20-V-G	.4	18.8	20	21.2	5	1	0.05	0.7 V <sub>Znom.</sub>	15 (≤ 55)	60 (≤ 225)	8	10
BZX584C22-V-G	.5	20.8	22	23.3	5	1	0.05	0.7 V <sub>Znom.</sub>	20 (≤ 55)	60 (≤ 250)	8	10
BZX584C24-V-G	.6	22.8	24	25.6	5	1	0.05	0.7 V <sub>Znom.</sub>	25 (≤ 70)	60 (≤ 250)	8	10
BZX584C27-V-G	.7	25.1	27	28.9	2	0.5	0.05	0.7 V <sub>Znom.</sub>	25 (≤ 80)	65 (≤ 300)	8	10
BZX584C30-V-G	.8	28	30	32	2	0.5	0.05	0.7 V <sub>Znom.</sub>	30 (≤ 80)	70 (≤ 300)	8	10
BZX584C33-V-G	.9	31	33	35	2	0.5	0.05	0.7 V <sub>Znom.</sub>	35 (≤ 80)	75 (≤ 325)	8	10
BZX584C36-V-G	.0	34	36	38	2	0.5	0.05	0.7 V <sub>Znom.</sub>	35 (≤ 90)	80 (≤ 350)	8	10
BZX584C39-V-G	.1	37	39	41	2	0.5	0.05	0.7 V <sub>Znom.</sub>	40 (≤ 130)	80 (≤ 350)	10	12
BZX584C43-V-G	.2	40	43	46	2	0.5	0.05	0.7 V <sub>Znom.</sub>	45 (≤ 150)	85 (≤ 375)	10	12
BZX584C47-V-G	.3	44	47	50	2	0.5	0.05	0.7 V <sub>Znom.</sub>	50 (≤ 170)	85 (≤ 375)	10	12
BZX584C51-V-G	.4	48	51	54	2	0.5	0.05	0.7 V <sub>Znom.</sub>	60 (≤ 180)	85 (≤ 400)	10	12



## PACKAGE DIMENSIONS in millimeters (inches): SOD-523



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