



Silicon Planar Zener Diodes: BZX584B Series

Rev.1.2

FEATURE

- ✧ Total power dissipation: max 200mW.
- ✧ Small plastic package suitable for surface mounted design.
- ✧ Voltage range includes breakdown voltages from 5.1V to 43V
- ✧ High temperature soldering: 260°C/10s at terminals.



SOD-523



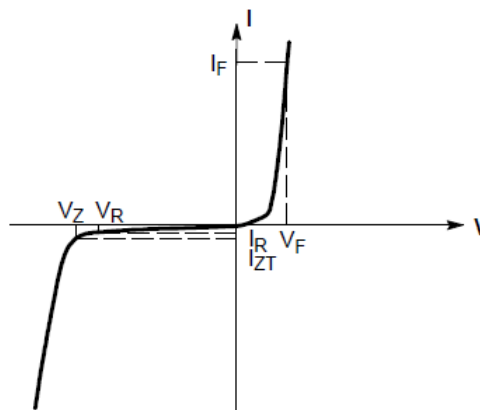
Symbol

ABSOLUTE MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Parameter	Symbol	Max Value	Unit
Total power dissipation @ $T_A=25^\circ\text{C}$	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

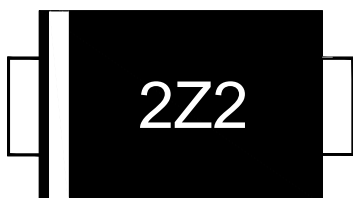
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Symbol	Parameter
V_Z	Reverse zener voltage at I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum zener impedance at I_{ZT}
I_R	Reverse leakage current at V_R
V_R	Reverse voltage
I_F	Forward current
V_F	Forward voltage at I_F



Zener voltage regulator

MARKING



2Z2: Device Marking Code

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

 Maximum $V_F=0.9\text{V}$ at $I_F=10\text{mA}$

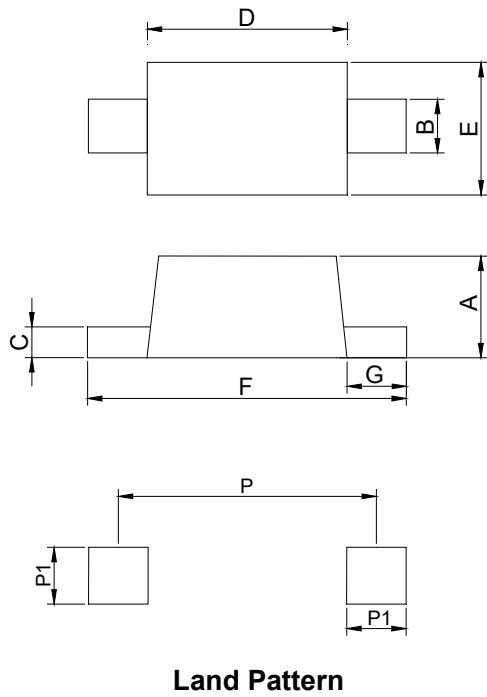
Type number	Zener voltage range at $I_{ZT}^{1)}$				Maximum zener impedance			Maximum reverse leakage current		Marking
	Nom (Volts)	Min (Volts)	Max (Volts)	I_{ZT} (mA)	Z_{ZT} (Ω)	Z_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (Volts)	
BZX584B5V1	5.1	5.00	5.20	5.0	60	480	1.0	2	2.0	2Z2
BZX584B5V6	5.6	5.49	5.71	5.0	40	400	1.0	1	2.0	2Z3
BZX584B6V2	6.2	6.08	6.32	5.0	10	150	1.0	3	4.0	2Z4
BZX584B6V8	6.8	6.66	6.94	5.0	15	80	1.0	2	4.0	2Z5
BZX584B7V5	7.5	7.35	7.65	5.0	15	80	1.0	1	5.0	2Z6
BZX584B8V2	8.2	8.04	8.36	5.0	15	80	1.0	0.7	5.0	2Z7
BZX584B9V1	9.1	8.92	9.28	5.0	15	100	1.0	0.5	6.0	2Z8
BZX584B10	10	9.80	10.20	5.0	20	150	1.0	0.2	7.0	2Z9
BZX584B11	11	10.78	11.22	5.0	20	150	1.0	0.1	8.0	2Y1
BZX584B12	12	11.76	12.24	5.0	25	150	1.0	0.1	8.0	2Y2
BZX584B13	13	12.74	13.26	5.0	30	170	1.0	0.1	8.0	2Y3
BZX584B15	15	14.70	15.30	5.0	30	200	1.0	0.1	10.5	2Y4
BZX584B16	16	15.68	16.32	5.0	40	200	1.0	0.1	11.2	2Y5
BZX584B18	18	17.64	18.36	5.0	45	225	1.0	0.1	12.6	2Y6
BZX584B20	20	19.60	20.40	5.0	55	225	1.0	0.1	14.0	2Y7
BZX584B22	22	21.56	22.44	5.0	55	250	1.0	0.1	15.4	2Y8
BZX584B24	24	23.52	24.48	5.0	70	250	1.0	0.1	16.8	2Y9
BZX584B27	27	26.46	27.54	2.0	80	300	0.5	0.1	18.9	2Y10
BZX584B30	30	29.40	30.60	2.0	80	300	0.5	0.1	21.0	2Y11
BZX584B33	33	32.34	33.66	2.0	80	325	0.5	0.1	23.1	2Y12
BZX584B36	36	35.28	36.72	2.0	90	350	0.5	0.1	25.2	2Y13
BZX584B39	39	38.22	39.78	2.0	130	350	0.5	0.1	27.3	2Y14
BZX584B43	43	42.14	43.86	2.0	100	700	1.0	0.1	32	2Y15

 1) V_Z is tested with pulses(10ms)

ORDERING INFORMATION

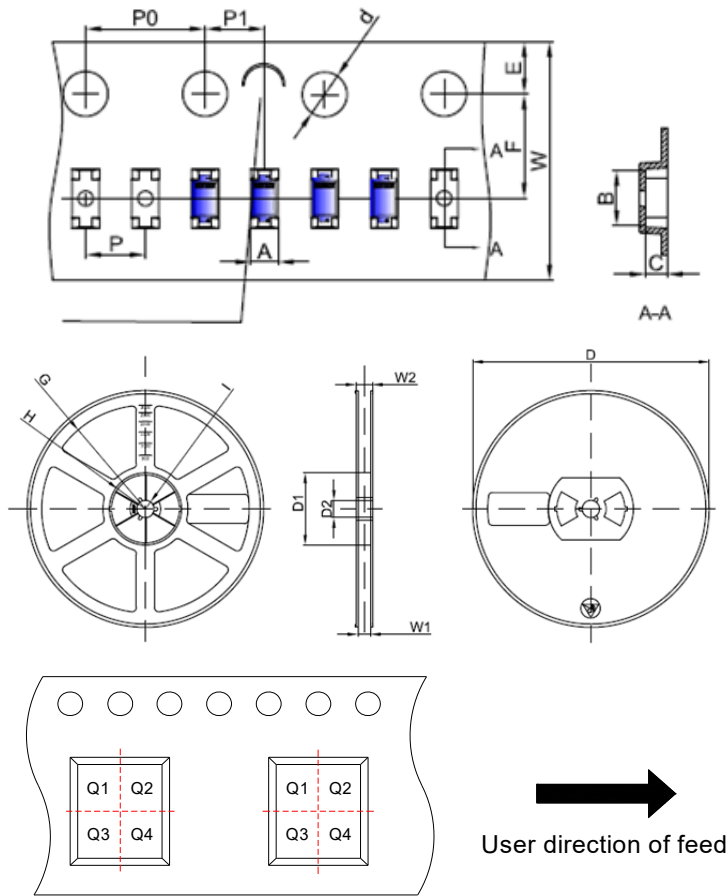
BZX Zener Diode Series	584 $P_D:200\text{mW}$	B B:2% V_Z Voltage tolerance	5V1 Voltage:5.1V
----------------------------------	----------------------------------	--	----------------------------

PACKAGE MECHANICAL DATA



Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	0.50	0.61	0.77	0.020	0.024	0.030
B	0.25	0.30	0.40	0.010	0.012	0.016
C	0.07	0.13	0.20	0.003	0.005	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
F	1.50	1.60	1.70	0.059	0.063	0.067
G	0.15	0.20	0.25	0.006	0.008	0.010
P1	0.60			0.024		
P	1.42			0.056		

TAPE AND REEL SPECIFICATION-SOD-523



Pin 1 quadrant:Q1&Q2

Packaging Description:

SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 8,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
A	0.95	0.037
B	1.92	0.076
C	0.73	0.029
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	2.00	0.079
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

ORDERING INFORMATION

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCRIPTION
BZX584B Series	SOD-523	8,000	7 inch reel pack

RATINGS AND CHARACTERISTICS CURVES ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Fig.1 Power dissipation vs ambient temperature

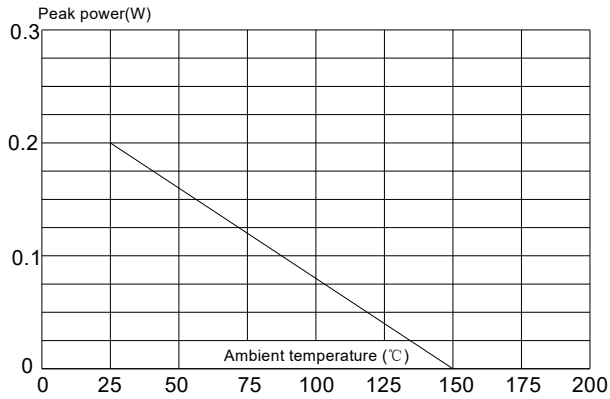


Fig.2 Zener breakdown characteristics

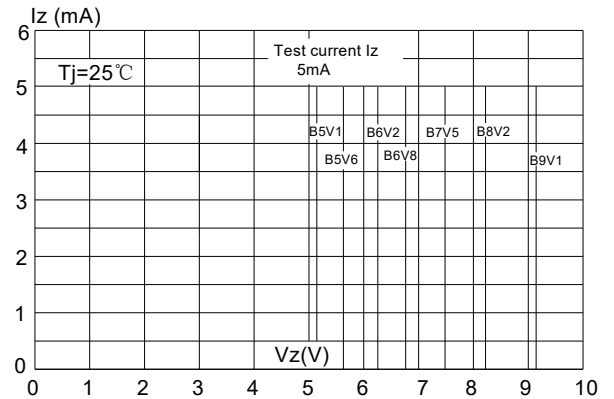


Fig.3 Zener breakdown characteristics

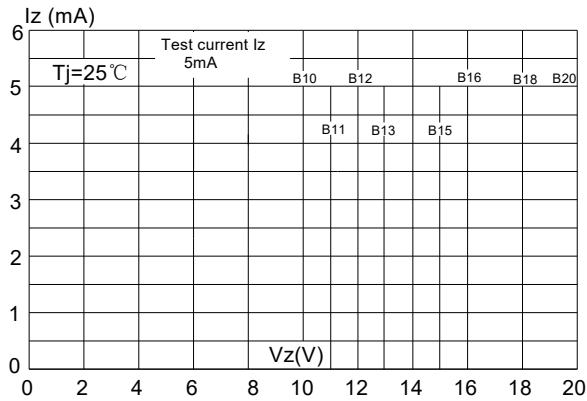
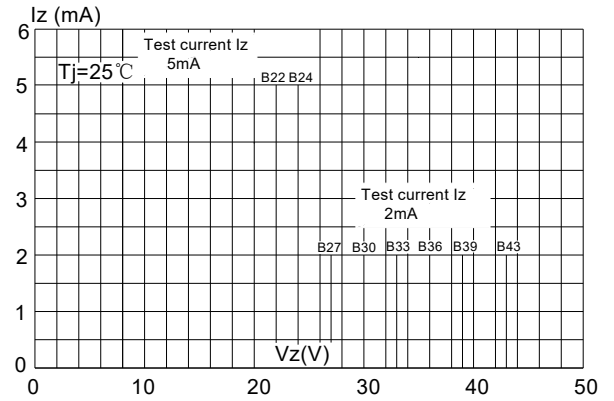


Fig.4 Zener breakdown characteristics




JieJie products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable JieJie product documentation. Warranties granted by JieJie shall be deemed void for products used for any purpose not expressly set forth in applicable JieJie documentation. JieJie shall not be liable for any claims or damages arising out of products used in applications not expressly intended by JieJie as set forth in applicable JieJie documentation. The sale and use of JieJie products is subject to JieJie terms and conditions of sale, unless otherwise agreed by JieJie.

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 1.2nd version which is made in 26-May-2026. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright ©2026 Jiangsu JieJie Microelectronics Co., Ltd. Printed All rights reserved.