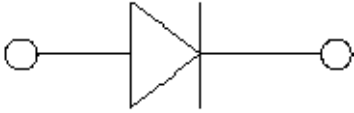


## Zener Diodes



### Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Zener Voltage 5.1V-47V

### Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Power Dissipation*(note)	P <sub>D</sub>	mW	400
Storage Temperature Range	T <sub>stg</sub>	°C	-55~+150
Junction Temperature	T <sub>J</sub>	°C	-55~+150
Maximum Forward Voltage @I <sub>F</sub> =10mA	V <sub>F</sub>	V	0.9
Maximum Regulator Current	I <sub>ZM</sub>	mA	P <sub>D</sub> /V <sub>Z</sub>
Thermal Resistance Junction to Ambient Air*(note)	R <sub>θJA</sub>	°C/W	312

\*Note: Device mounted on PCB

### ■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZT52B5V1BS THRU BZT52B47BS	F2	Approximate 0.004	3000	30000	120000	7" reel



# BZT52B5V1BS THRU BZT52B47BS

## ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

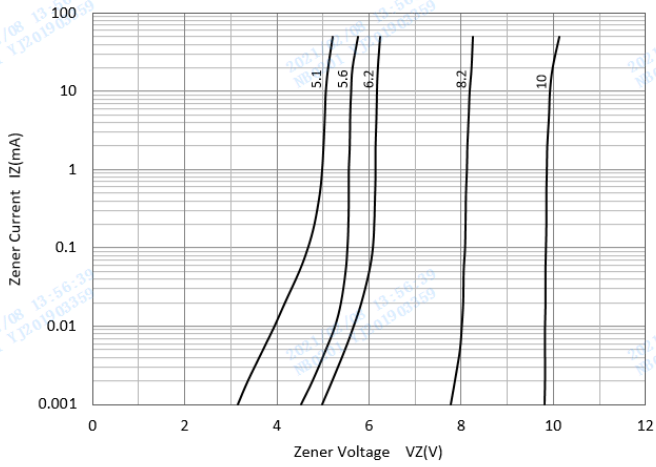
Type Number	Device Marking	V <sub>z</sub> at I <sub>zT</sub> (V)			Z <sub>zT</sub> (Ω)		Z <sub>zk</sub> (Ω)		I <sub>R</sub> (μA)@V <sub>R</sub>		Typical Temperature Coefficient@ IZTC mV/°C	
		min.	typ.	max.	I <sub>zT</sub> (mA)	max.	I <sub>zk</sub> (mA)	max.	max	V <sub>R</sub> (V)	Min	Max
BZT52B5V1BS	B8Z	5	5.1	5.2	5	60	1	480	2	2	-2.7	1.2
BZT52B5V6BS	B9Z	5.49	5.6	5.71	5	40	1	400	1	2	-2	2.5
BZT52B6V2BS	BAZ	6.08	6.2	6.32	5	10	1	150	3	4	0.4	3.7
BZT52B6V8BS	BBZ	6.66	6.8	6.94	5	15	1	141	2	4	1.2	4.5
BZT52B7V5BS	BCZ	7.35	7.5	7.65	5	15	1	80	1	5	2.5	5.3
BZT52B8V2BS	BDZ	8.04	8.2	8.36	5	15	1	80	0.7	5	3.2	6.2
BZT52B9V1BS	BEZ	8.92	9.1	9.28	5	15	1	100	0.5	6	3.8	7
BZT52B10BS	BFZ	9.8	10	10.2	5	20	1	150	0.2	7	4.5	8
BZT52B11BS	BGZ	10.78	11	11.22	5	20	1	150	0.1	8	5.4	9
BZT52B12BS	BHZ	11.76	12	12.24	5	25	1	150	0.1	8	6	10
BZT52B13BS	BJZ	12.74	13	13.26	5	30	1	170	0.1	8	7	11
BZT52B15BS	BKZ	14.7	15	15.3	5	30	1	200	0.1	10.5	9.2	13
BZT52B16BS	BLZ	15.68	16	16.32	5	40	1	200	0.1	11.2	10.4	14
BZT52B18BS	BMZ	17.64	18	18.36	5	45	1	225	0.1	12.6	12.4	16
BZT52B20BS	BNZ	19.6	20	20.4	5	55	1	225	0.1	14	14.4	18
BZT52B22BS	BPZ	21.56	22	22.44	5	51	1	235	0.045	15.4	16.4	20
BZT52B24BS	BRZ	23.52	24	24.48	5	65	1	235	0.045	16.8	18.4	22
BZT52B27BS	BSZ	26.46	27	27.54	5	75	0.5	282	0.045	18.9	21.4	25.3
BZT52B30BS	BTZ	29.4	30	30.6	5	75	0.5	282	0.045	21	24.4	29.4
BZT52B33BS	BUZ	32.34	33	33.7	5	80	1	325	0.1	25	27.4	33.4
BZT52B36BS	BVZ	35.28	36	36.72	5	84	0.5	329	0.045	25.2	30.4	37.4
BZT52B39BS	BWZ	38.22	39	39.78	5	122	0.5	329	0.045	27.3	33.4	41.2
BZT52B43BS	BXZ	42.14	43	43.86	5	141	0.5	353	0.045	30.1	37.6	46.6
BZT52B47BS	BYZ	46.06	47	48.94	5	160	0.5	353	0.045	33	42	51.8



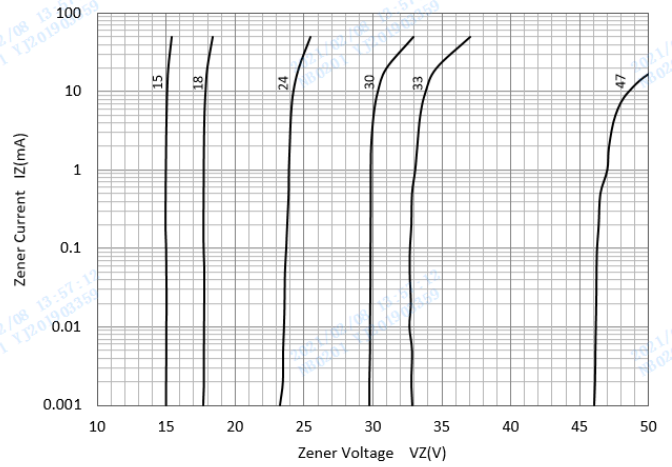
# BZT52B5V1BS THRU BZT52B47BS

## ■ Characteristics (Typical)

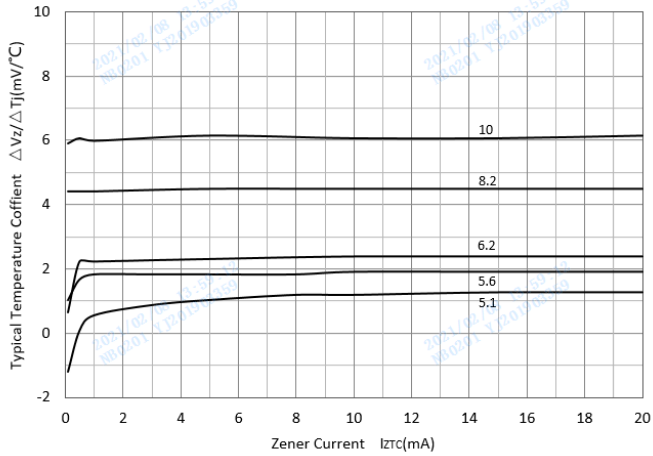
Zener Breakdown Characteristics



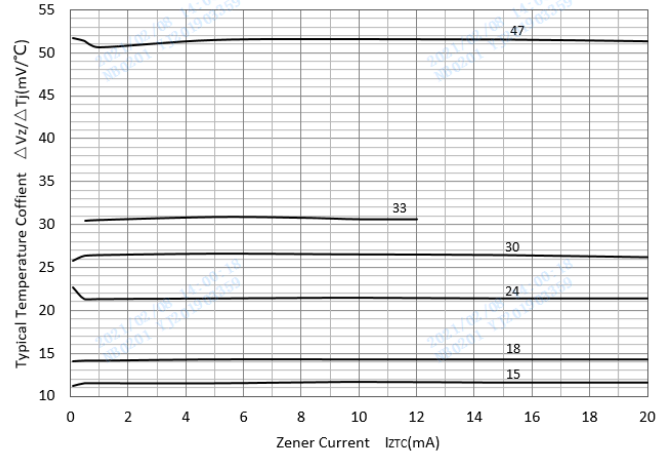
Zener Breakdown Characteristics



Temperature coefficient



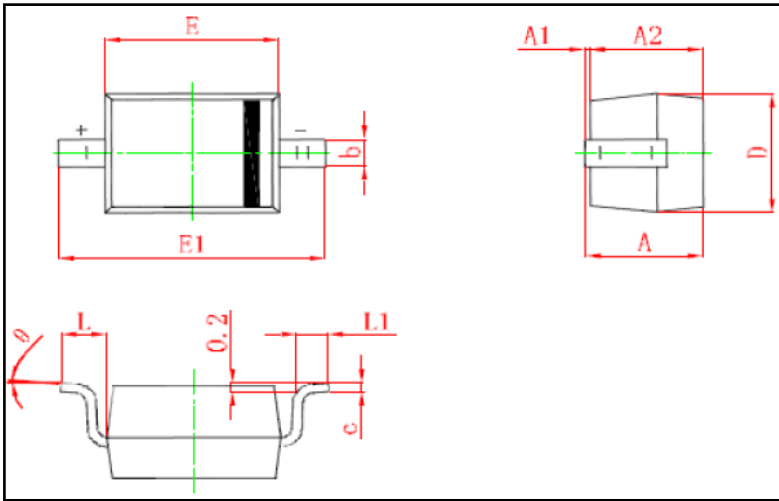
Temperature coefficient





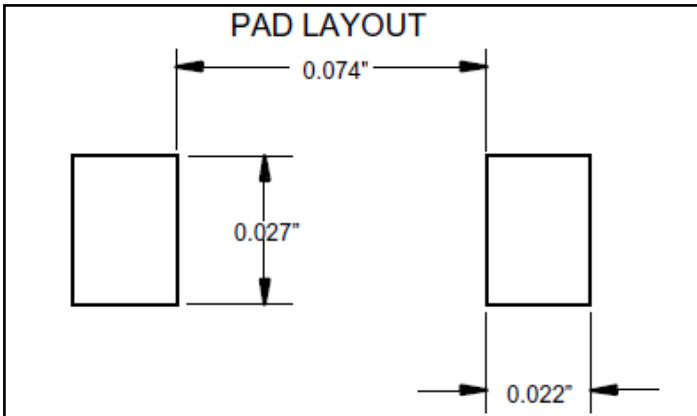
# BZT52B5V1BS THRU BZT52B47BS

## ■ SOD-323 Package Outline Dimensions



Symbol	Min. (mm)	Max. (mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.400
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

## ■ SOD-323 Soldering Footprint





## BZT52B5V1BS THRU BZT52B47BS

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