

## Zener Diodes

### BZT52C2V0T ~ BZT52C75VT

#### ■ Features

- Wide Zener Voltage Range Selection, 2.0V to 75V
- Surface Device Type Mounting



SOD-523



Top View

#### PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

#### ■ Absolute Maximum Ratings (TA = 25°C unless otherwise noted)

Parameter	Symbol	Rating	Unit
Forward Voltage @ IF=10mA	VF	1.0	V
Power Dissipation	PD	200	mW
Thermal Resistance Junction to Ambient	RθJA	625	°C/W
Junction Temperature	TJ	150	°C
Storage Temperature range	Tstg	-55 to 150	

## Zener Diodes

### BZT52C2V0T ~ BZT52C75VT

■ Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise specified)

Device Type	Device Marking	V <sub>Z</sub> @ I <sub>ZT</sub> (Volts)			I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> (Ω) Max	I <sub>ZK</sub> (mA)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω) Max	I <sub>R</sub> @ V <sub>R</sub> (μA) Max	V <sub>R</sub> (Volts)
		Min	Nom	Max						
BZT52C2V0T	5 ±	1.90	2.0	2.10	5	100	1	564	120	0.5
BZT52C2V2T	5 ⊥	2.09	2.2	2.31	5	100	1	564	120	0.7
BZT52C2V4T	50	2.2	2.4	2.6	5	100	1	1000	50	1
BZT52C2V7T	51	2.5	2.7	2.9	5	100	1	1000	20	1
BZT52C3V0T	52	2.8	3.0	3.2	5	100	1	1000	10	1
BZT52C3V3T	53	3.1	3.3	3.5	5	95	1	1000	5	1
BZT52C3V6T	54	3.4	3.6	3.8	5	90	1	1000	5	1
BZT52C3V9T	55	3.7	3.9	4.1	5	90	1	1000	3	1
BZT52C4V3T	56	4.0	4.3	4.6	5	90	1	1000	3	1
BZT52C4V7T	57	4.4	4.7	5.0	5	80	1	800	3	2
BZT52C5V1T	58	4.8	5.1	5.4	5	60	1	500	2	2
BZT52C5V6T	59	5.2	5.6	6.0	5	40	1	200	1	2
BZT52C6V2T	5A	5.8	6.2	6.6	5	10	1	100	3	4
BZT52C6V8T	5B	6.4	6.8	7.2	5	15	1	160	2	4
BZT52C7V5T	5C	7.0	7.5	7.9	5	15	1	160	1	5
BZT52C8V2T	5D	7.7	8.2	8.7	5	15	1	160	0.7	5
BZT52C9V1T	5E	8.5	9.1	9.6	5	15	1	160	0.2	7
BZT52C10VT	5F	9.4	10	10.6	5	20	1	160	0.1	8
BZT52C11VT	5G	10.4	11	11.6	5	20	1	160	0.1	8
BZT52C12VT	5H	11.4	12	12.7	5	25	1	80	0.1	8
BZT52C13VT	5J	12.4	13	14.1	5	30	1	80	0.1	8
BZT52C15VT	5K	14.3	15	15.8	5	30	1	80	0.05	10.5
BZT52C16VT	5L	15.3	16	17.1	5	40	1	80	0.05	11.2
BZT52C18VT	5M	16.8	18	19.1	5	45	1	80	0.05	12.6
BZT52C20VT	5N	18.8	20	21.2	5	55	1	100	0.05	14
BZT52C22VT	5P	20.8	22	23.3	5	55	1	100	0.05	15.4
BZT52C24VT	5R	22.8	24	25.6	5	70	1	120	0.05	16.8
BZT52C27VT	5S	25.1	27	28.9	2	80	0.5	300	0.05	18.9
BZT52C30VT	5T	28	30	32	2	80	0.5	300	0.05	21
BZT52C33VT	5U	31	33	35	2	80	0.5	300	0.05	23.2
BZT52C36VT	5V	34	36	38	2	90	0.5	500	0.05	25.2
BZT52C39VT	5X	37	39	41	2	130	0.5	500	0.05	27.3
BZT52C43VT	5Y	40	43	46	2	150	0.5	500	0.05	30.1
BZT52C47VT	5Z	44	47	50	2	170	0.5	500	0.05	32.9
BZT52C51VT	5 -	48	51	54	2	180	0.5	500	0.05	35.7
BZT52C56VT	5 =	52	56	60	2	200	0.5	500	0.05	39.2
BZT52C62VT	5 ≡	58	62	66	2	215	0.5	500	0.05	43.4
BZT52C68VT	5 >	64	68	72	2	240	0.5	500	0.05	47.6
BZT52C75VT	5 <	70	75	79	2	255	0.5	500	0.05	52.5

Notes:

1. The Zener Voltage (V<sub>Z</sub>) is tested under pulse condition of 10mS.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed to I<sub>ZT</sub> or I<sub>ZK</sub>.

## Zener Diodes

### BZT52C2V0T ~ BZT52C75VT

■ Typical Characteristics

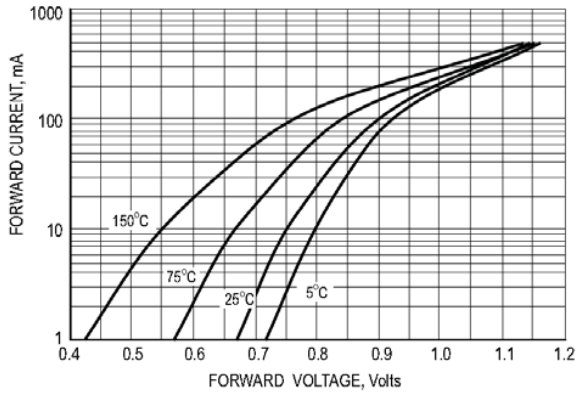


Fig.1 TYPICAL FORWARD VOLTAGE

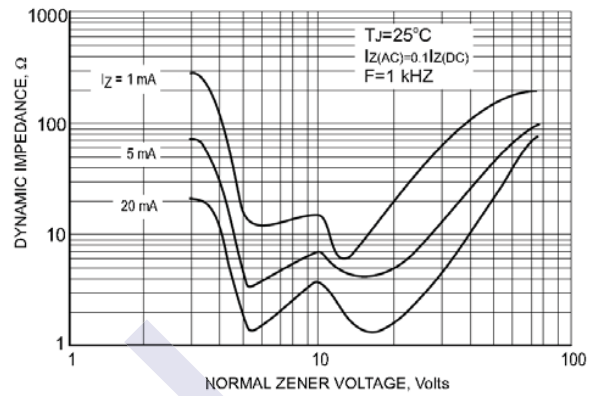


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

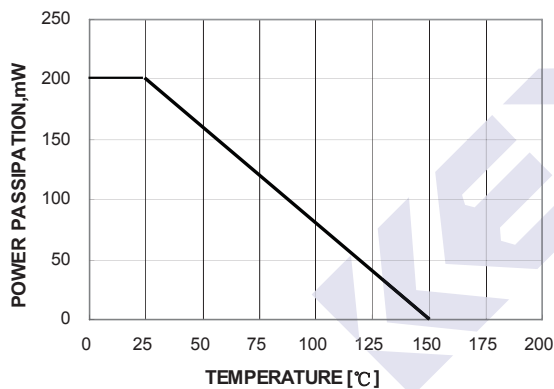


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

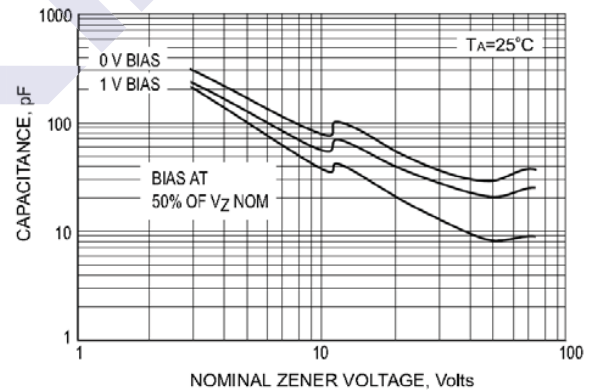


Fig.4 TYPICAL CAPACITANCE

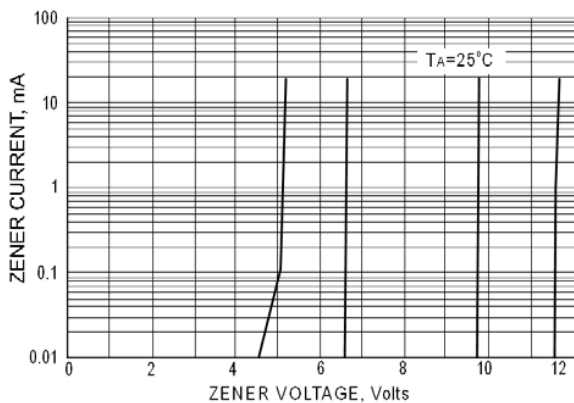


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

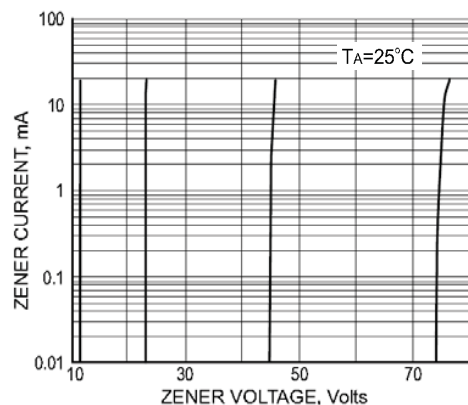
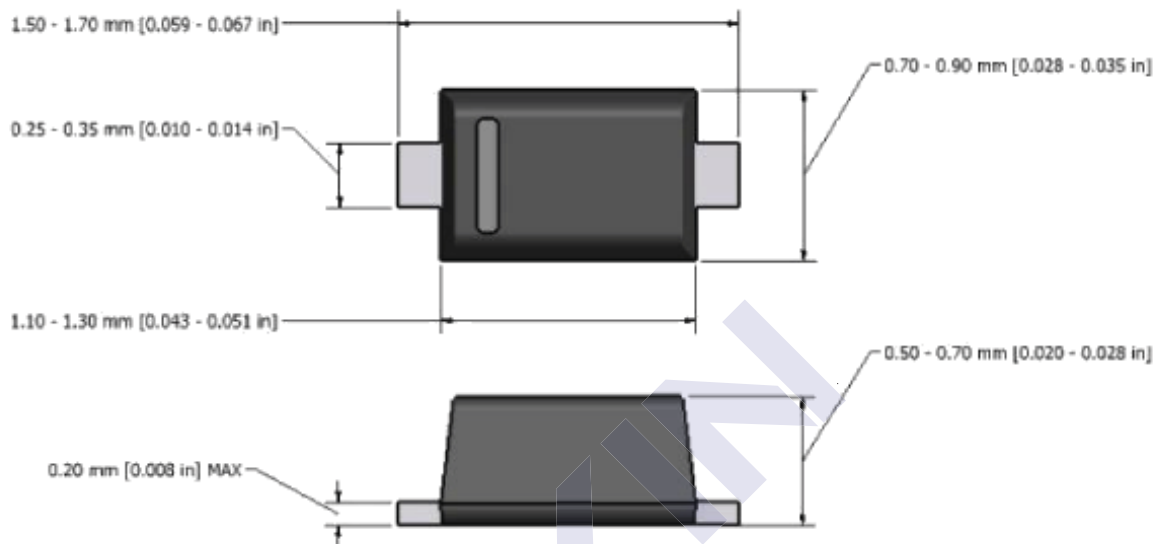


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

## Zener Diodes

### BZT52C2V0T ~ BZT52C75VT

#### ■ Package Outline Dimensions (SOD-523)



**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

#### ■ The Recommended Mounting Pad Size

