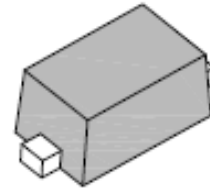


## 200mW Two Terminals SMD Zener Diodes

### Features

- Planar Die Construction
- 200mW Power Dissipation
- Zener Voltage 2.0v to 75v
- Zener Voltage Tolerance:  $\pm 5\%$
- Ideally Suited for Automated Assembly Processes
- RoHS Compliance



SOD-523



### Mechanical Data

<b>Case:</b>	SOD-523, molded plastic
<b>Epoxy:</b>	Plastic package has UL flammability 94V-0
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode
<b>Approx Weight:</b>	Approx. 0.0016 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
<b>P<sub>tot</sub></b>	Power Dissipation	200	mW	FR-5 Board at TA=25 °C
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	0.9	V	IF=10mA
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to +150	°C	

## 200mW Two Terminals SMD Zener Diodes

### BZT52C2V0WT - BZT52C75WT

#### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Part NO.	Marking Code	Nominal Zener Voltage @ I <sub>ZT</sub>			Test Current  I <sub>ZT</sub> (mA)	Max. Zener Impedance			Max. Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub>	
		V <sub>Z</sub> (V)				Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)
		Nom.	Min.	Max.						
BZT52C2V0WT	RD	2.0	1.8	2.15	5	100	-	-	120	0.5
BZT52C2V2WT	RE	2.2	2.08	2.33	5	100	-	-	120	0.7
BZT52C2V4WT	Z7	2.4	2.2	2.6	5	100	1000	1	120	1
BZT52C2V7WT	A8	2.7	2.5	2.9	5	100	1000	1	120	1
BZT52C3V0WT	B8	3.0	2.8	3.2	5	100	1000	1	50	1
BZT52C3V3WT	C8	3.3	3.1	3.5	5	95	1000	1	20	1
BZT52C3V6WT	D8	3.6	3.4	3.8	5	90	1000	1	10	1
BZT52C3V9WT	E8	3.9	3.7	4.1	5	90	1000	1	5	1
BZT52C4V3WT	F8	4.3	4.0	4.6	5	90	1000	1	5	1
BZT52C4V7WT	G8	4.7	4.4	5.0	5	80	800	1	2	1
BZT52C5V1WT	H8	5.1	4.8	5.4	5	60	500	1	2	1.5
BZT52C5V6WT	I8	5.6	5.2	6.0	5	40	200	1	1	2.5
BZT52C6V2WT	J8	6.2	5.8	6.6	5	10	100	1	1	3
BZT52C6V8WT	K8	6.8	6.4	7.2	5	15	160	1	0.5	3.5
BZT52C7V5WT	L8	7.5	7.0	7.9	5	15	160	1	0.5	4
BZT52C8V2WT	M8	8.2	7.7	8.7	5	15	160	1	0.5	5
BZT52C9V1WT	N8	9.1	8.5	9.6	5	15	160	1	0.5	6
BZT52C10WT	O8	10	9.4	10.6	5	20	160	1	0.1	7
BZT52C11WT	P8	11	10.4	11.6	5	20	160	1	0.1	8
BZT52C12WT	Q8	12	11.4	12.7	5	25	80	1	0.1	9
BZT52C13WT	R8	13.25	12.4	14.1	5	30	80	1	0.1	10
BZT52C15WT	S8	15	14.3	15.8	5	30	80	1	0.1	11
BZT52C16WT	T8	16.2	15.3	17.1	2	40	80	1	0.1	12
BZT52C18WT	U8	18	16.8	19.1	2	45	80	1	0.1	13
BZT52C20WT	V8	20	18.8	21.2	2	55	100	1	0.1	15
BZT52C22WT	W8	22	20.8	23.3	2	55	100	1	0.1	17
BZT52C24WT	X8	24.2	22.8	25.6	2	70	120	1	0.1	19
BZT52C27WT	Y8	27	25.1	28.9	2	80	300	1	0.1	21
BZT52C30WT	Z8	30	28	32	2	80	300	1	0.1	23
BZT52C33WT	A9	33	31	35	2	80	300	1	0.1	25
BZT52C36WT	B9	36	34	38	2	90	500	1	0.1	27
BZT52C39WT	C9	39	37	41	2	130	500	1	2	30

## 200mW Two Terminals SMD Zener Diodes

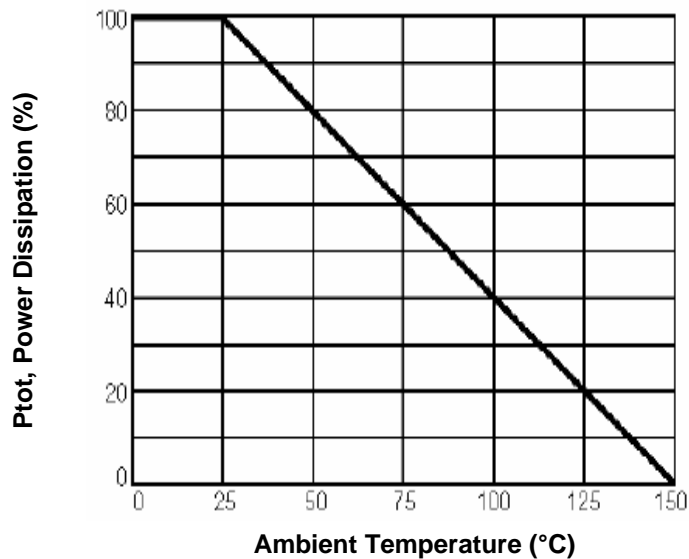
### BZT52C2V0WT - BZT52C75WT

Part NO.	Marking Code	Nominal Zener Voltage @ I <sub>ZT</sub>			Test Current  I <sub>ZT</sub> (mA)	Max. Zener Impedance			Max. Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub>	
		V <sub>Z</sub> (V)				Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)
		Nom.	Min.	Max.						
BZT52C43WT	D9	43	40	46	1	150	500	1	2	33
BZT52C47WT	E9	47	44	50	1	170	500	1	2	36
BZT52C51WT	F9	51	48	54	1	180	500	1	1	39
BZT52C56WT	G9	56	52	60	1	200	500	1	1	43
BZT52C62WT	H9	62	58	66	1	215	500	1	0.2	47
BZT52C68WT	I9	68	64	72	1	240	500	1	0.2	52
BZT52C75WT	J9	75	70	79	1	255	500	1	0.2	57

**Note:** Tested with pulses  $t_p=20\text{ms}$

### Typical Characteristics Curves

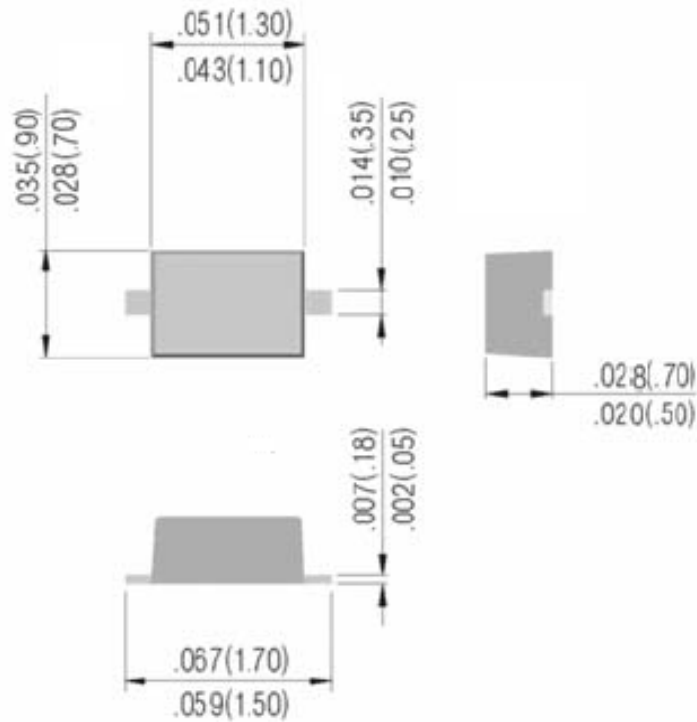
Fig.1- Steady State Power Derating



## 200mW Two Terminals SMD Zener Diodes

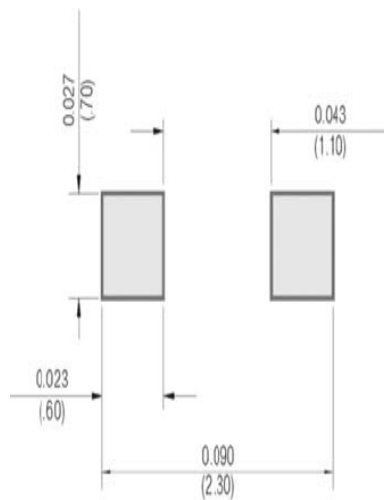
### BZT52C2V0WT - BZT52C75WT

#### Dimensions in inch (mm)



#### SOD-523

#### Mounting Pad Layout in inch (mm)



## 200mW Two Terminals SMD Zener Diodes

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### BZT52C2V0WT - BZT52C75WT

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