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Micro Commercial Components

Micro Commercial Components
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BZT52C2V4 THRU BZT52C51

500 mW Zener Diode 2.4 to 51 Volts

Features

- Planar Die Construction
- 500mW Power Dissipation on Ceramic PCB
- General Purpose Medium Current
- Ideally Suited for Automated Assembly Processes
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

Absolute Maximum Ratings

Symbol	Rating	Rating	Unit
P_D	Power dissipation	500	mW
T_J	Junction Temperature	-65 to +150	℃
T_{STG}	Storage Temperature Range	-65 to +150	℃

Absolute Maximum Ratings

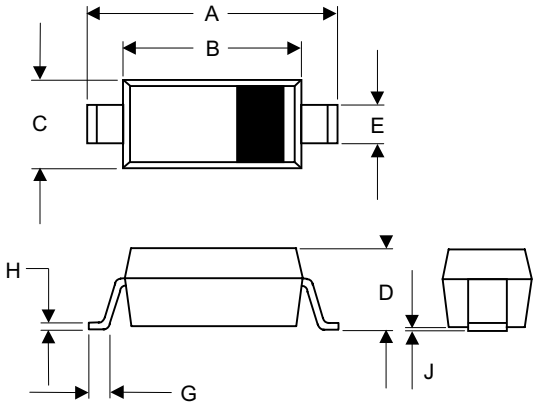
Symbol	Rating	Rating	Unit
R_{thJA}	Thermal Resistance Junction to Ambient*	250	℃/W

* Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25 mm^2

Electrical Characteristics

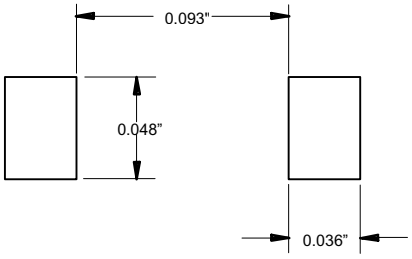
Symbol	Rating	Rating	Unit
V_F	Maximum Forward Voltage (I_F=10mAdc)	0.9	V

SOD-123



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS @25°C

Type	ZENER VOLTAGE V_Z (1) VOLTS			Maximum Zener Impedance (2) Z_{ZT}(OHMS)		Maximum Zener Impedance (2) Z_{ZK} (OHMS)		REVERSE CURRENT I_R (Max) @ V_R		Typical Temperature Coefficent @ I_{ZTC}		Marking
	Min.	Nom	Max.	I_{ZT}(mA)	Max.	I_{ZK}(mA)	Max.	uA	V	mV/℃		
BZT52C2V4	2.28	2.4	2.56	5	100	1.0	600	50	1.0	-3.5	0	WX
BZT52C2V7	2.5	2.7	2.9	5	100	1.0	600	20	1.0	-3.5	0	W1
BZT52C3V0	2.8	3.0	3.2	5	95	1.0	600	10	1.0	-3.5	0	W2
BZT52C3V3	3.1	3.3	3.5	5	95	1.0	600	5	1.0	-3.5	0	W3
BZT52C3V6	3.4	3.6	3.8	5	90	1.0	600	5	1.0	-3.5	0	W4
BZT52C3V9	3.7	3.9	4.1	5	90	1.0	600	3	1.0	-3.5	0	W5
BZT52C4V3	4.0	4.3	4.6	5	90	1.0	600	3	1.0	-3.5	0	W6
BZT52C4V7	4.4	4.7	5.0	5	80	1.0	500	3	2.0	-3.5	0.2	W7
BZT52C5V1	4.8	5.1	5.4	5	60	1.0	480	2	2.0	-2.7	1.2	W8
BZT52C5V6	5.2	5.6	6.0	5	40	1.0	400	1	2.0	-2.0	2.5	W9
BZT52C6V2	5.8	6.2	6.6	5	10	1.0	150	3	4.0	0.4	3.7	WA
BZT52C6V8	6.4	6.8	7.2	5	15	1.0	80	2	4.0	1.2	4.5	WB
BZT52C7V5	7.0	7.5	7.9	5	15	1.0	80	1	5.0	2.5	5.3	WC
BZT52C8V2	7.7	8.2	8.7	5	15	1.0	80	0.7	5.0	3.2	6.2	WD
BZT52C9V1	8.5	9.1	9.6	5	15	1.0	100	0.5	6.0	3.8	7.0	WE
BZT52C10	9.4	10	10.6	5	20	1.0	150	0.2	7.0	4.5	8.0	WF
BZT52C11	10.4	11	11.6	5	20	1.0	150	0.1	8.0	5.4	9.0	WG
BZT52C12	11.4	12	12.7	5	25	1.0	150	0.1	8.0	6.0	10.0	WH
BZT52C13	12.4	13	14.1	5	30	1.0	170	0.1	8.0	7.0	11.0	WI
BZT52C15	13.8	15	15.6	5	30	1.0	200	0.1	10.5	9.2	13.0	WJ
BZT52C16	15.3	16	17.1	5	40	1.0	200	0.1	11.2	10.4	14.0	WK
BZT52C18	16.8	18	19.1	5	45	1.0	225	0.1	12.6	12.4	16.0	WL
BZT52C20	18.8	20	21.2	5	55	1.0	225	0.1	14.0	14.4	18.0	WM
BZT52C22	20.8	22	23.3	5	55	1.0	250	0.1	15.4	16.4	20.0	WN
BZT52C24	22.8	24	25.6	5	70	1.0	250	0.1	16.8	18.4	22.0	WO
BZT52C27	25.1	27	28.9	2	80	0.5	300	0.1	18.9	21.4	25.3	WP
BZT52C30	28	30	32	2	80	0.5	300	0.1	21.0	24.4	29.4	WQ
BZT52C33	31	33	35	2	80	0.5	325	0.1	23.1	27.4	33.4	WR
BZT52C36	34	36	38	2	90	0.5	350	0.1	25.2	30.4	37.4	WS
BZT52C39	37	39	41	2	130	0.5	350	0.1	27.3	33.4	41.2	WT
BZT52C43	40	43	46	5	100	1.0	700	0.1	32.0	10.0	12.0	WU
BZT52C47	44	47	50	5	100	1.0	750	0.1	35.0	10.0	12.0	WV
BZT52C51	48	51	54	5	100	1.0	750	0.1	38.0	10.0	12.0	WW

(1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25 mm^2
(2) f=1KHz

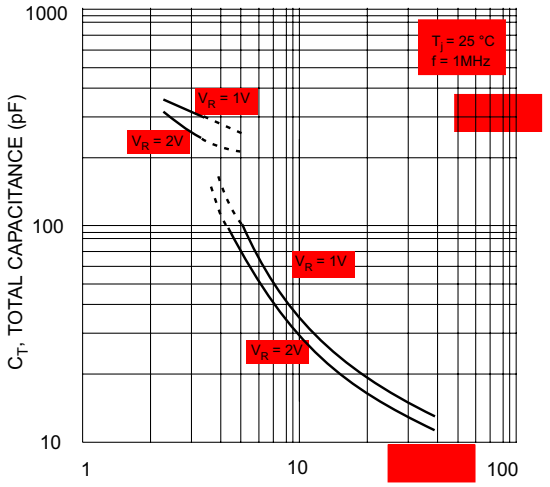


Fig. 1 Total Capacitance vs Nominal Zener Voltage

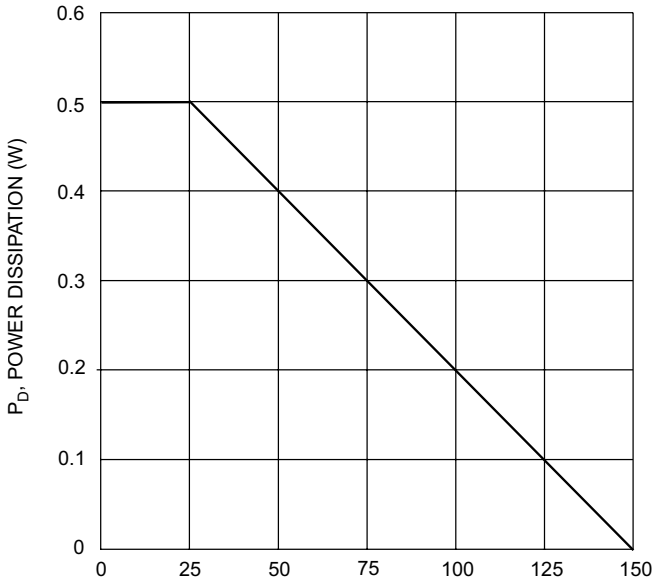


Fig. 2 Power Dissipation vs Ambient Temperature

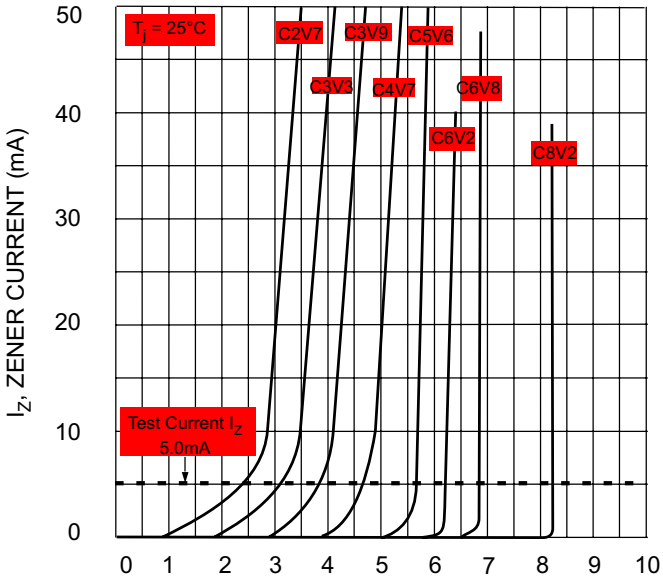


Fig. 3 Zener Breakdown Characteristics

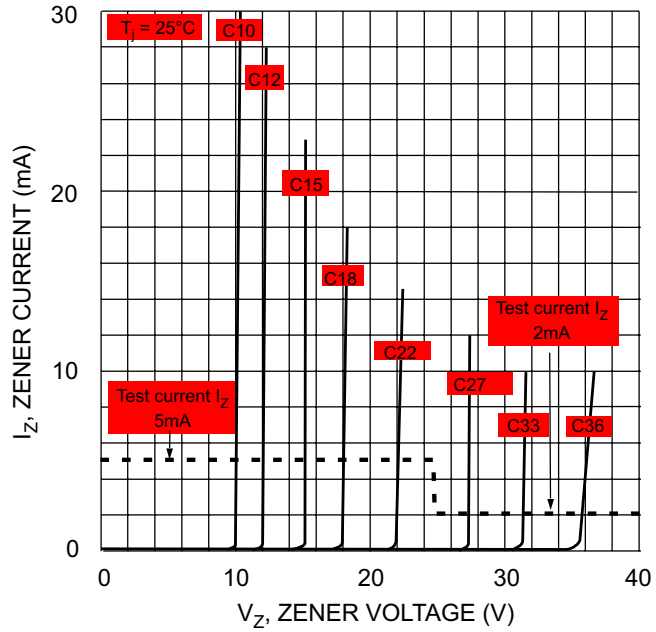


Fig. 4 Zener Breakdown Characteristics

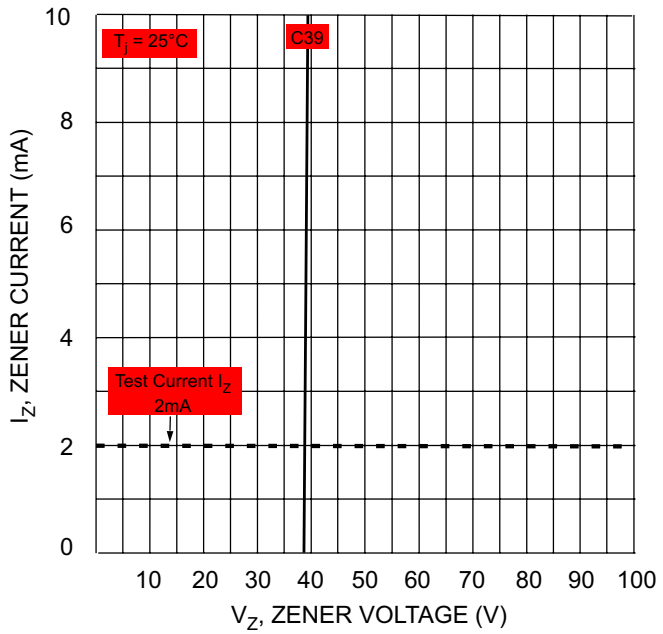


Fig. 5 Zener Breakdown Characteristics

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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