



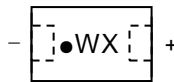
Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# BZT52C2V4LP THRU BZT52C39LP

**100 mW  
 Zener Diode  
 2.4 to 39 Volts**

## Features

- Ultra-Small Leadless Surface Mount Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Ideally Suited for Automated Assembly Processes
- 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

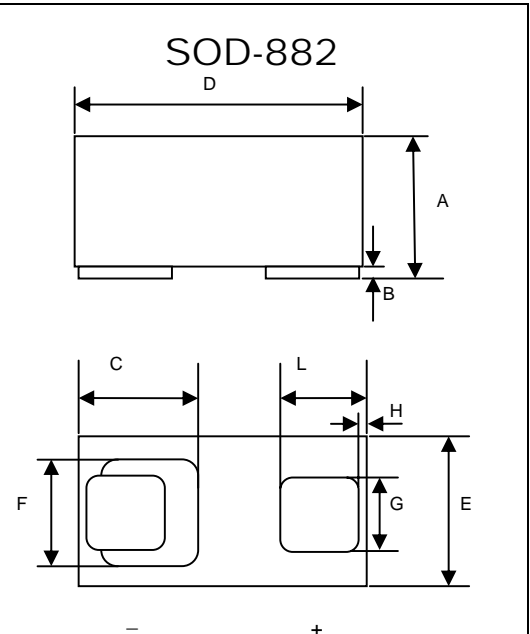
Symbol	Rating	Rating	Unit
P <sub>D</sub>	Power dissipation	100	mW
T <sub>J</sub>	Junction Temperature	-65 to +150	°C
T <sub>STG</sub>	Storage Temperature Range	-65 to +150	°C

## Absolute Maximum Ratings

Symbol	Rating	Rating	Unit
R <sub>thJA</sub>	Thermal Resistance Junction to Ambient	1250	°C/W

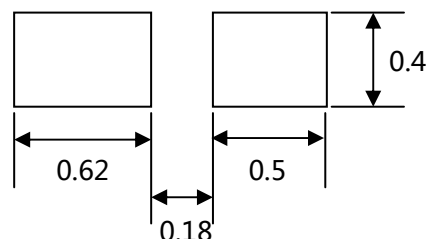
## Electrical Characteristics

Symbol	Rating	Rating	Unit
V <sub>F</sub>	Maximum Forward Voltage (I <sub>F</sub> =10mA <sub>dc</sub> )	0.9	V



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.003	0.01	0.07	
C	0.019 REF.		0.470 REF.		
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.017 REF.		0.420 REF.		
G	0.011	0.015	0.27	0.37	
H	0.001 REF.		0.030 REF.		
L	0.013	0.017	0.34	0.44	

Suggested Solder Pad Layout (mm)



**ELECTRICAL CHARACTERISTICS @25°C**

Type Number	Marking Code	ZENER VOLTAGE <sup>(1)</sup>				Maximum Zener Impedance <sup>(2)</sup>			Maximum Reverse Current $I_R$ (Max) @ $V_R$		Typical Temperature Coefficient @ $I_{ZTC}$ mV/°C		Test Current $I_{ZTC}$ mA
		$V_Z$ @ $I_{ZT}$			$I_{ZT}$	$Z_{ZT}$ @ $I_{ZT}$	$Z_{ZK}$ @ $I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	Min	Max.	
		Min.	Nom	Max.	mA	$\Omega$	mA	$\mu$ A	V				
BZT52C2V4LP	WX	2.2	2.4	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7LP	W1	2.5	2.7	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0LP	W2	2.8	3.0	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3LP	W3	3.1	3.3	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6LP	W4	3.4	3.6	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9LP	W5	3.7	3.9	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3LP	W6	4.0	4.3	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7LP	W7	4.4	4.7	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1LP	9Y	4.8	5.1	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6LP	9A	5.2	5.6	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZT52C6V2LP	9B	5.8	6.2	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8LP	9C	6.4	6.8	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5LP	9D	7.0	7.5	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2LP	9E	7.7	8.2	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1LP	9F	8.5	9.1	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10LP	9G	9.4	10	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11LP	9H	10.4	11	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12LP	9J	11.4	12	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13LP	9K	12.4	13	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15LP	9L	13.8	15	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16LP	9M	15.3	16	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18LP	9N	16.8	18	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20LP	9P	18.8	20	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22LP	9R	20.8	22	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24LP	9S	22.8	24	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C36LP	9W	34	36	38	2	90	350	0.5	0.1	25.2	36.5	45.5	5
BZT52C39LP	9X	37	39	41	2	130	350	0.5	0.1	27.3	36.8	49.8	5

(1) Short duration pulse test used to minimize self-heating effect.

(2) f=1KHz

## Typical characteristics

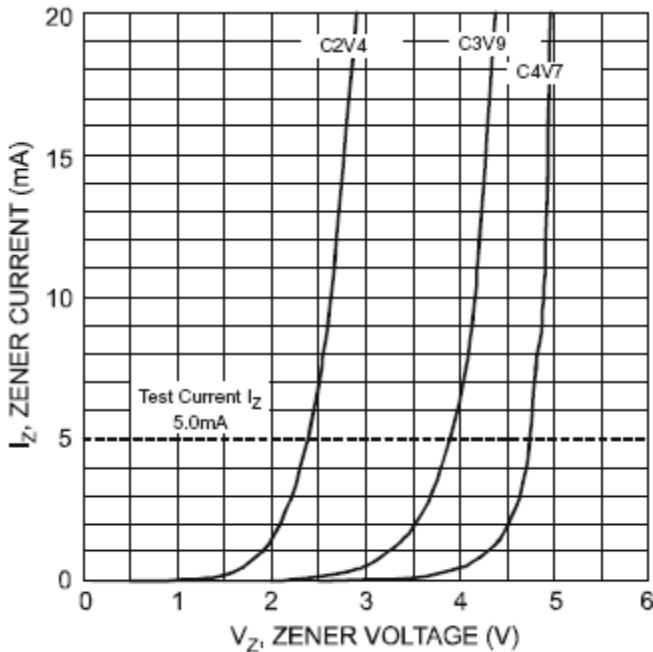


Fig. 1 Typical Zener Breakdown Characteristics

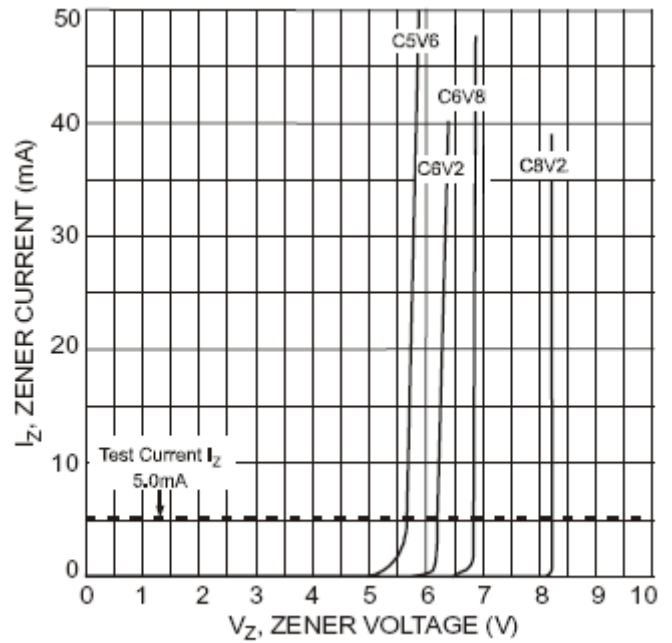


Fig. 2 Typical Zener Breakdown Characteristics

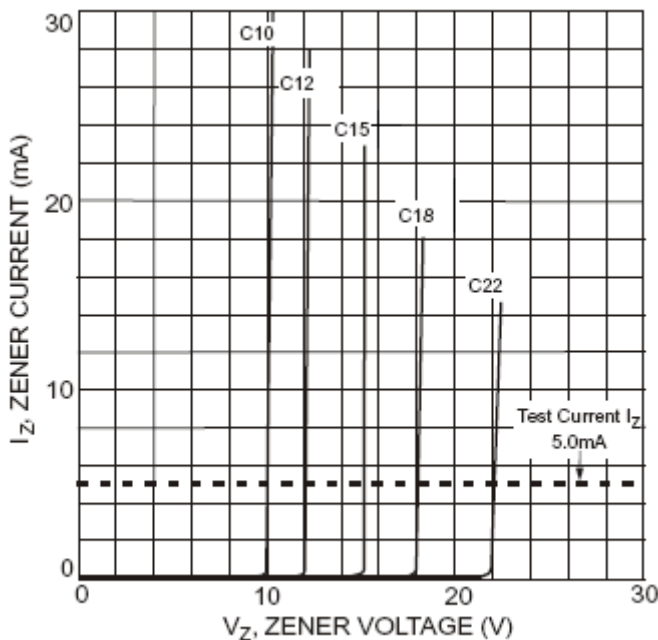


Fig. 3 Typical Zener Breakdown Characteristics

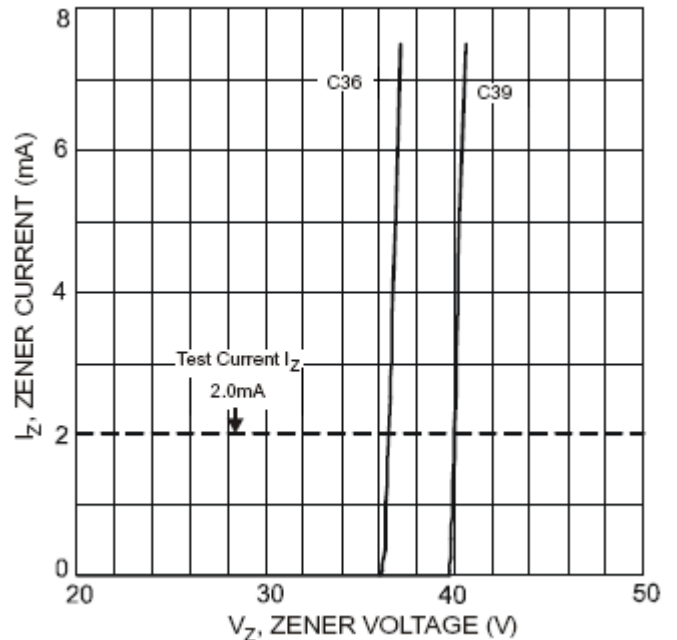


Fig. 4 Typical Zener Breakdown Characteristics



Micro Commercial Components

### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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

#### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

#### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

#### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.