

Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes
- General Purpose Medium Current
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**300 mW
Zener Diode
2.4 to 47 Volts**

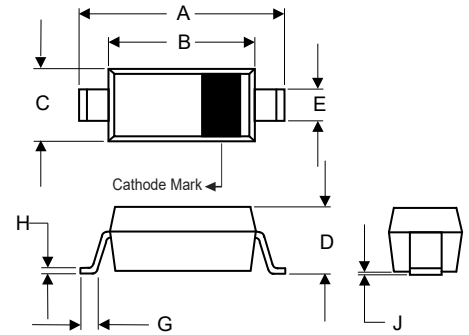
Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance :625°C/W Junction to Ambient

Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	300mW	
Maximum Forward Voltage	V_F	0.9V	$I_F=10mA$

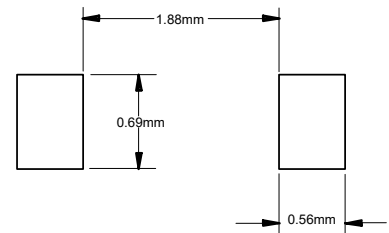
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

SOD-323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage ⁽²⁾			Maximum Zener Impedance ⁽³⁾		Maximum Zener Impedance ⁽³⁾		Reverse Current		Typical Temperature Coefficient @ I _{ZTC}		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT}	I _{ZK}	Z _{ZK}	I _R (Max)	V _R	Min.	Max.	
	Min.(V)	Nom(V)	Max.(V)	mA	Ω	mA	Ω	μA	V	mV/°C		
BZT52C2V4SHE3	2.28	2.4	2.56	5	100	1.0	600	50	1.0	-3.5	0	WX
BZT52C2V7SHE3	2.5	2.7	2.9	5	100	1.0	600	20	1.0	-3.5	0	W1
BZT52C3V0SHE3	2.8	3.0	3.2	5	95	1.0	600	10	1.0	-3.5	0	W2
BZT52C3V3SHE3	3.1	3.3	3.5	5	95	1.0	600	5	1.0	-3.5	0	W3
BZT52C3V6SHE3	3.4	3.6	3.8	5	90	1.0	600	5	1.0	-3.5	0	W4
BZT52C3V9SHE3	3.7	3.9	4.1	5	90	1.0	600	3	1.0	-3.5	0	W5
BZT52C4V3SHE3	4.0	4.3	4.6	5	90	1.0	600	3	1.0	-3.5	0	W6
BZT52C4V7SHE3	4.4	4.7	5.0	5	80	1.0	500	3	2.0	-3.5	0.2	W7
BZT52C5V1SHE3	4.8	5.1	5.4	5	60	1.0	480	2	2.0	-2.7	1.2	W8
BZT52C5V6SHE3	5.2	5.6	6.0	5	40	1.0	400	1	2.0	-2.0	2.5	W9
BZT52C6V2SHE3	5.8	6.2	6.6	5	10	1.0	150	3	4.0	0.4	3.7	WA
BZT52C6V8SHE3	6.4	6.8	7.2	5	15	1.0	80	2	4.0	1.2	4.5	WB
BZT52C7V5SHE3	7.0	7.5	7.9	5	15	1.0	80	1	5.0	2.5	5.3	WC
BZT52C8V2SHE3	7.7	8.2	8.7	5	15	1.0	80	0.7	5.0	3.2	6.2	WD
BZT52C9V1SHE3	8.5	9.1	9.6	5	15	1.0	100	0.5	6.0	3.8	7.0	WE
BZT52C10SHE3	9.4	10	10.6	5	20	1.0	150	0.2	7.0	4.5	8.0	WF
BZT52C11SHE3	10.4	11	11.6	5	20	1.0	150	0.1	8.0	5.4	9.0	WG
BZT52C12SHE3	11.4	12	12.7	5	25	1.0	150	0.1	8.0	6.0	10.0	WH
BZT52C13SHE3	12.4	13	14.1	5	30	1.0	170	0.1	8.0	7.0	11.0	WI
BZT52C15SHE3	13.8	15	15.6	5	30	1.0	200	0.1	10.5	9.2	13.0	WJ
BZT52C16SHE3	15.3	16	17.1	5	40	1.0	200	0.1	11.2	10.4	14.0	WK
BZT52C18SHE3	16.8	18	19.1	5	45	1.0	225	0.1	12.6	12.4	16.0	WL
BZT52C20SHE3	18.8	20	21.2	5	55	1.0	225	0.1	14.0	14.4	18.0	WM
BZT52C22SHE3	20.8	22	23.3	5	55	1.0	250	0.1	15.4	16.4	20.0	WN
BZT52C24SHE3	22.8	24	25.6	5	70	1.0	250	0.1	16.8	18.4	22.0	WO
BZT52C27SHE3	25.1	27	28.9	2	80	0.5	300	0.1	18.9	21.4	25.3	WP
BZT52C30SHE3	28	30	32	2	80	0.5	300	0.1	21.0	24.4	29.4	WQ
BZT52C33SHE3	31	33	35	2	80	0.5	325	0.1	23.1	27.4	33.4	WR
BZT52C36SHE3	34	36	38	2	90	0.5	350	0.1	25.2	30.4	37.4	WS
BZT52C39SHE3	37	39	41	2	130	0.5	350	0.1	27.3	33.4	41.2	WT
BZT52C43SHE3	40	43	46	2	100	0.5	700	0.1	32.0	10.0	12.0	WU
BZT52C47SHE3	44	47	50	2	100	0.5	750	0.1	35.0	10.0	12.0	WV

Note : 2. Standard Zener voltage tolerance is ±5%
3.f=1KHz

Curve Characteristics

Fig. 1 - Power Derating Curve

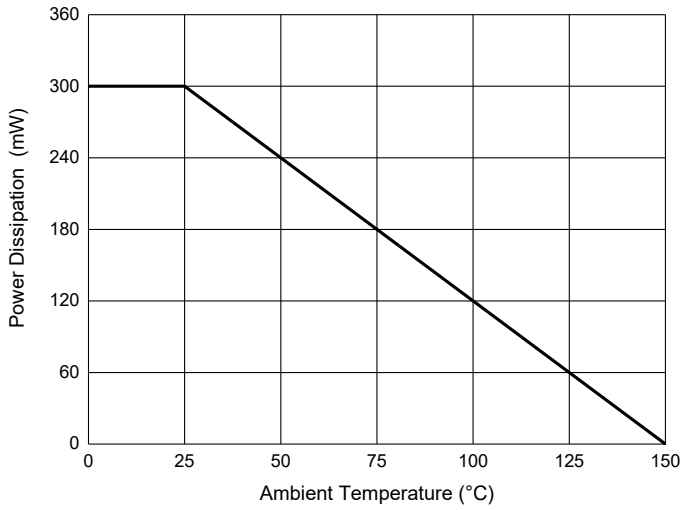


Fig. 2 - Typical Zener Breakdown Characteristics

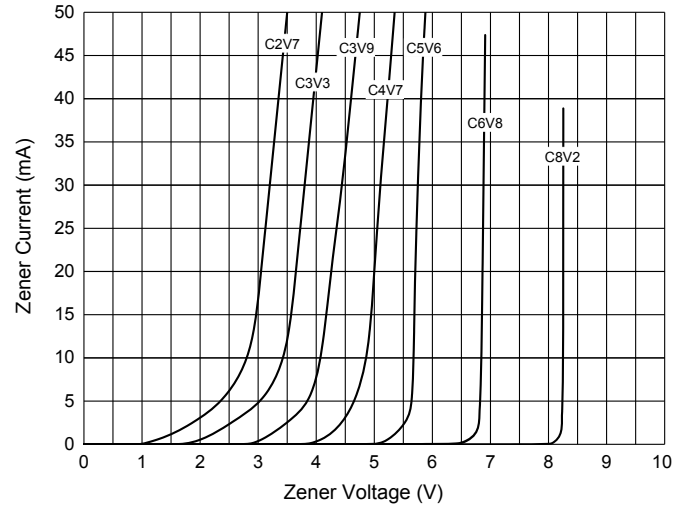
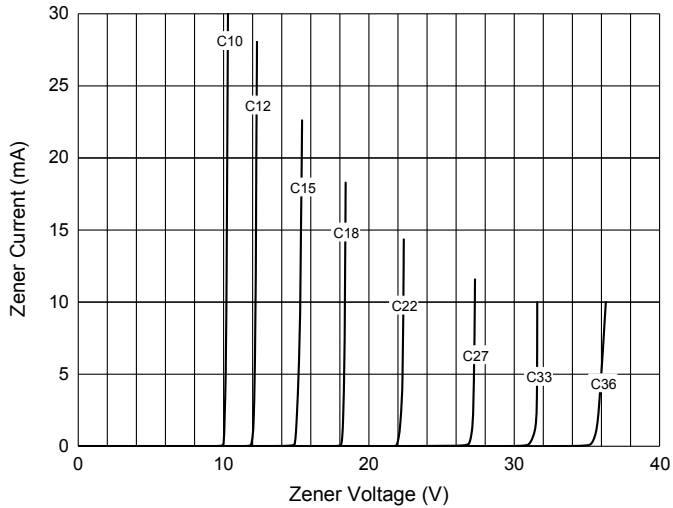


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

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

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. **Micro Commercial Components Corp**. products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

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.