

Features

- Standard Vz Tolerance is $\pm 2\%$
- Planar Die Construction
- 400mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Halogen Free. "Green" Device (Note 1)
- 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)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Thermal Resistance : 313°C/W Junction to Ambient

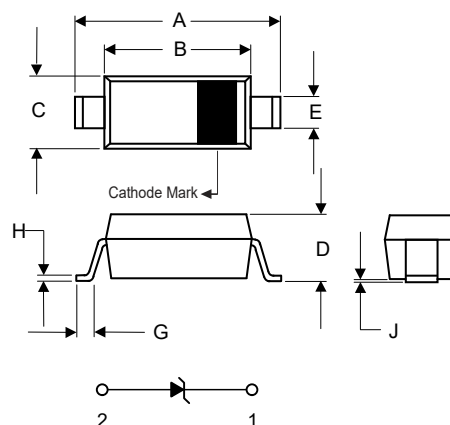
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	400mW	Note 2
Maximum Forward Current	I_{FM}	300mA	
Maximum Forward Voltage	V_F	0.9V	$I_F=10\text{mA}$

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

Note: 2. Device mounted on a printed-circuit board measuring $11 \times 25 \times 1.6 \text{ mm}$

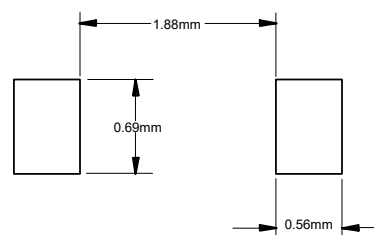
**400 mW
Zener Diode
3.0 to 51 Volts**

SOD-323



DIM	INCHES		MM		NOTE
	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			Maximum Zener Impedance		Maximum Zener Impedance		Maximum Reverse Current $I_R(\text{Max}) @ V_R$		Marking Code
	$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$	I_{ZT}	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	V_R	
	Min.(V)	Nom(V)	Max.(V)	Ω	mA	Ω	mA	μA	V	
BZT52B3V0BS	2.94	3.0	3.06	89	5.0	564	1.00	9.0	1.0	B2Z
BZT52B3V3BS	3.23	3.3	3.37	89	5.0	564	1.00	4.5	1.0	B3Z
BZT52B3V6BS	3.53	3.6	3.67	84	5.0	564	1.00	4.5	1.0	B4Z
BZT52B3V9BS	3.82	3.9	3.98	84	5.0	564	1.00	2.7	1.0	B5Z
BZT52B4V3BS	4.21	4.3	4.39	84	5.0	564	1.00	2.7	1.0	B6Z
BZT52B4V7BS	4.61	4.7	4.79	75	5.0	564	1.00	2.7	2.0	B7Z
BZT52B5V1BS	5.00	5.1	5.20	60	5.0	480	1.00	2.0	2.0	B8Z
BZT52B5V6BS	5.49	5.6	5.71	40	5.0	400	1.00	1.0	2.0	B9Z
BZT52B6V2BS	6.08	6.2	6.32	10	5.0	150	1.00	3.0	4.0	BAZ
BZT52B6V8BS	6.66	6.8	6.94	15	5.0	141	1.00	2.0	4.0	BBZ
BZT52B7V5BS	7.35	7.5	7.65	15	5.0	80	1.00	1.0	5.0	BCZ
BZT52B8V2BS	8.04	8.2	8.36	15	5.0	80	1.00	0.7	5.0	BDZ
BZT52B9V1BS	8.92	9.1	9.28	15	5.0	100	1.00	0.5	6.0	BEZ
BZT52B10BS	9.80	10	10.20	20	5.0	150	1.00	0.2	7.0	BFZ
BZT52B11BS	10.78	11	11.22	20	5.0	150	1.00	0.1	8.0	BGZ
BZT52B12BS	11.76	12	12.24	25	5.0	150	1.00	0.1	8.0	BHZ
BZT52B13BS	12.74	13	13.26	30	5.0	170	1.00	0.1	8.0	BJZ
BZT52B15BS	14.70	15	15.30	30	5.0	200	1.00	0.1	10.5	BKZ
BZT52B16BS	15.68	16	16.32	40	5.0	200	1.00	0.1	11.2	BLZ
BZT52B18BS	17.64	18	18.36	45	5.0	225	1.00	0.1	12.6	BMZ
BZT52B20BS	19.60	20	20.40	55	5.0	225	1.00	0.1	14.0	BNZ
BZT52B22BS	21.56	22	22.44	51	5.0	235	1.00	0.045	15.4	BPZ
BZT52B24BS	23.52	24	24.48	65	5.0	235	1.00	0.045	16.8	BRZ
BZT52B27BS	26.46	27	27.54	75	5.0	282	0.50	0.045	18.9	BSZ
BZT52B30BS	29.40	30	30.60	75	5.0	282	0.50	0.045	21.0	BTZ
BZT52B33BS	32.34	33	33.66	75	5.0	306	0.50	0.045	23.0	BUZ
BZT52B36BS	35.28	36	36.72	84	5.0	329	0.50	0.045	25.2	BVZ
BZT52B39BS	38.22	39	39.78	122	5.0	329	0.50	0.045	27.3	BWZ
BZT52B43BS	42.14	43	43.86	141	5.0	353	0.50	0.045	30.1	BXZ
BZT52B47BS	46.06	47	47.94	160	5.0	353	0.50	0.045	33.0	BYZ
BZT52B51BS	49.98	51	52.02	169	2.0	376	0.50	0.045	35.7	BZZ

Curve Characteristics

Fig. 1 - Power Derating Curve

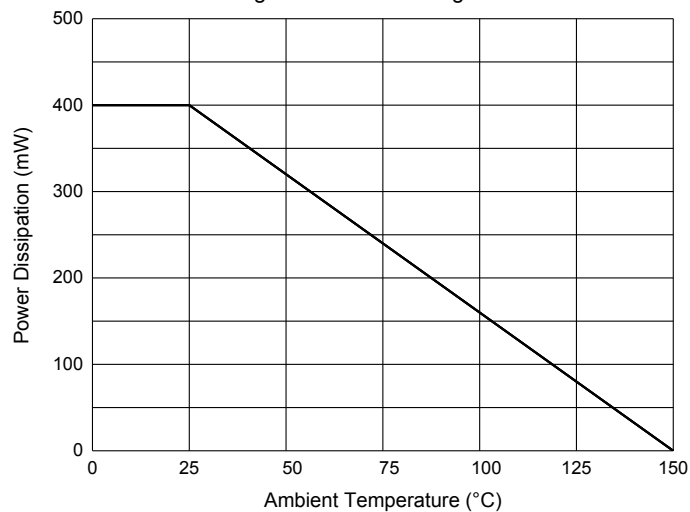


Fig. 2 - Typical Zener Breakdown Characteristics

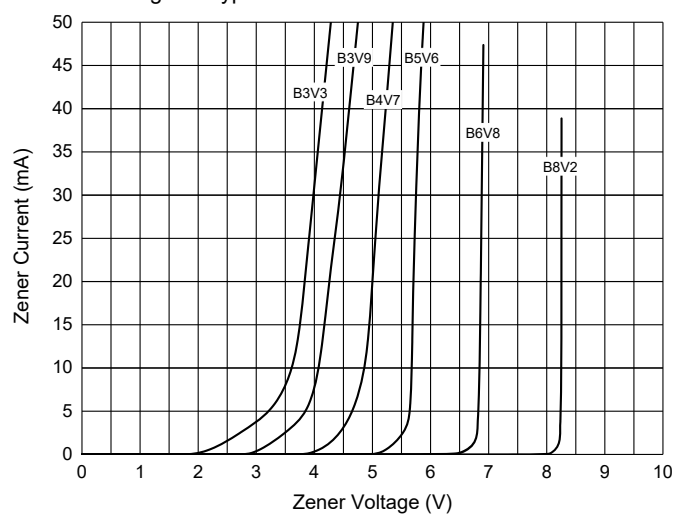
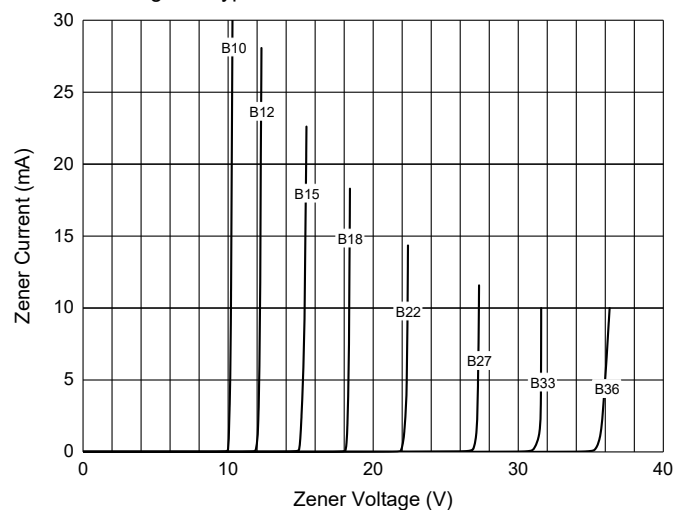


Fig. 3 - Typical Zener Breakdown Characteristics



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.