

Features

- AEC-Q101 Qualified
- Dual Zeners in Common Anode Configuration
- Ideally Suited for Automated Assembly Processes
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- ESD(HBM): 30KV

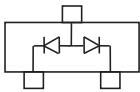
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 417°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	300	mW

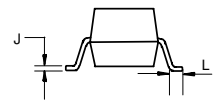
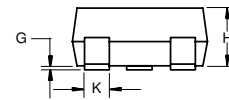
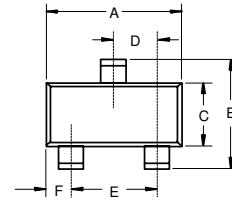
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



**300 mW
Zener Diode
3.6 to 39 Volts**

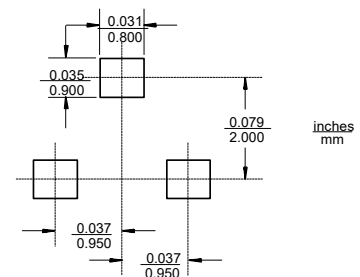
SOT-23



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage			Test Current	Maximum Zener Impedance	Maximum Zener Impedance		Maximum Reverse Current		Typical Temperature Coefficient		Test Current	Device Marking
	V _Z @ I _{ZT}					I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		T _C @ I _{ZTC}		
	min. V	typ. V	max. V	μA	V				min. mV/°C	max. mV/°C			
				mA	Ω	mA			mA				
AZ23B3V6HE3	3.53	3.6	3.67	5	90	600	1	5	1	-3.5	0	5	2D4
AZ23B3V9HE3	3.82	3.9	3.98	5	90	600	1	3	1	-3.5	0	5	2D5
AZ23B4V3HE3	4.21	4.3	4.39	5	90	600	1	3	1	-3.5	0	5	2D6
AZ23B4V7HE3	4.61	4.7	4.79	5	80	500	1	3	2	-3.5	0.2	5	2D7
AZ23B5V1HE3	5.0	5.1	5.2	5	60	480	1	2	2	-2.7	1.2	5	2D8
AZ23B5V6HE3	5.49	5.6	5.71	5	40	400	1	1	2	-2	2.5	5	2D9
AZ23B6V2HE3	6.08	6.2	6.32	5	10	150	1	3	4	0.4	3.7	5	2DA
AZ23B6V8HE3	6.66	6.8	6.94	5	15	80	1	2	4	1.2	4.5	5	2DB
AZ23B7V5HE3	7.35	7.5	7.65	5	15	80	1	1	5	2.5	5.3	5	2DC
AZ23B8V2HE3	8.04	8.2	8.36	5	15	80	1	0.7	5	3.2	6.2	5	2DD
AZ23B9V1HE3	8.92	9.1	9.28	5	15	100	1	0.5	6	3.8	7	5	2DE
AZ23B10HE3	9.8	10	10.2	5	20	150	1	0.2	7	4.5	8	5	2DF
AZ23B11HE3	10.78	11	11.22	5	20	150	1	0.1	8	5.4	9	5	2DG
AZ23B12HE3	11.76	12	12.24	5	25	150	1	0.1	8	6	10	5	2DH
AZ23B13HE3	12.74	13	13.3	5	30	170	1	0.1	8	7	11	5	2DI
AZ23B15HE3	14.7	15	15.3	5	30	200	1	0.1	10.5	9.2	13	5	2DJ
AZ23B16HE3	15.68	16	16.3	5	40	200	1	0.1	11.2	10.4	14	5	2DK
AZ23B18HE3	17.6	18	18.4	5	45	225	1	0.1	12.6	12.4	16	5	2DL
AZ23B20HE3	19.6	20	20.4	5	55	225	1	0.1	14	14.4	18	5	2DM
AZ23B22HE3	21.56	22	22.44	5	55	250	1	0.1	15.4	16.4	20	5	2DN
AZ23B24HE3	23.52	24	24.5	5	70	250	1	0.1	16.8	18.4	22	5	2DO
AZ23B27HE3	26.46	27	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2	2DP
AZ23B30HE3	29.4	30	30.6	2	80	300	0.5	0.1	21	24.4	29.4	2	2DQ
AZ23B33HE3	32.34	33	33.7	2	80	325	0.5	0.1	23.1	27.4	33.4	2	2DR
AZ23B36HE3	35.28	36	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2	2DS
AZ23B39HE3	38.22	39	39.8	2	130	350	0.5	0.1	27.3	33.4	41.2	2	2DT

Curve Characteristics

Fig. 1 - Power Derating Curve

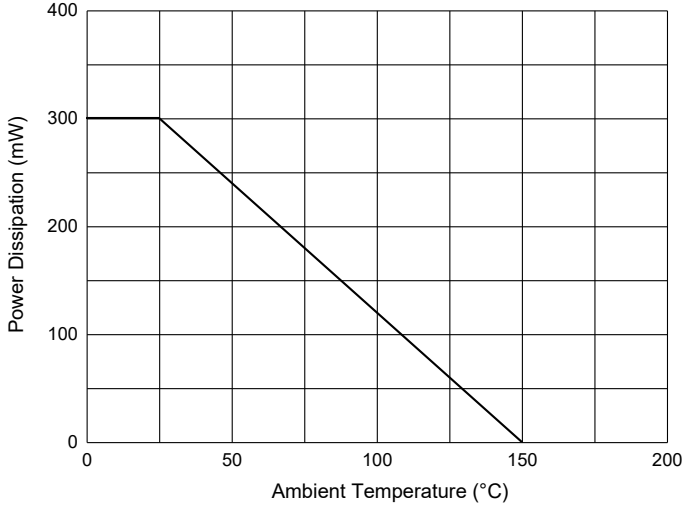


Fig. 2 - Typical Zener Breakdown Characteristics

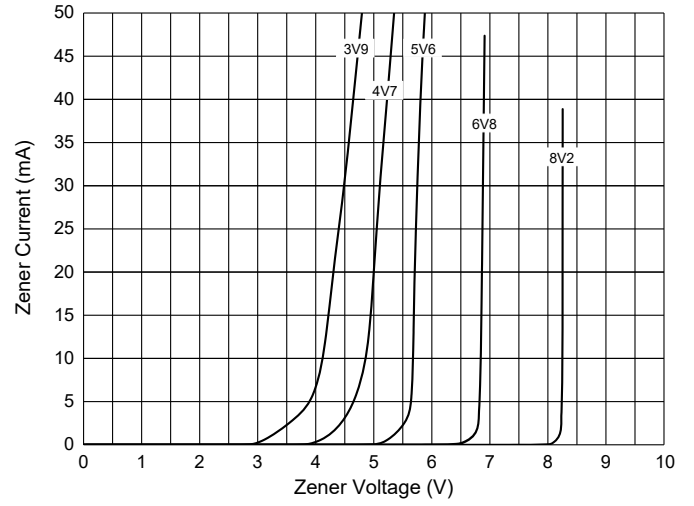
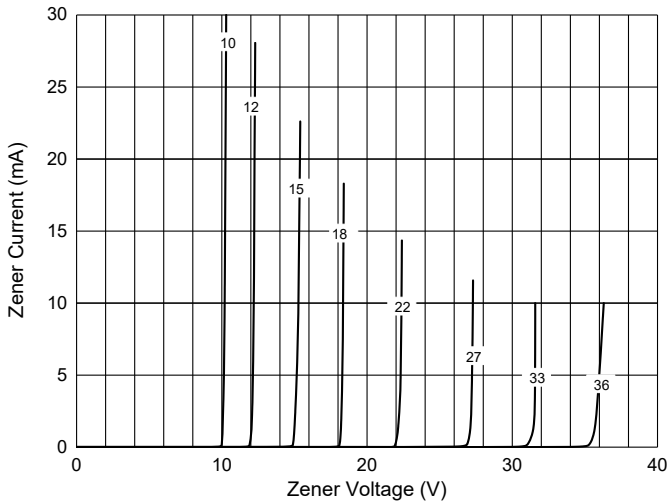


Fig. 3 - Typical Zener Breakdown Characteristics



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.