

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

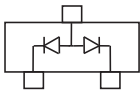
Maximum Ratings

- 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

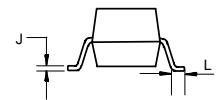
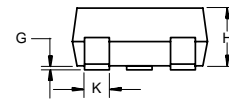
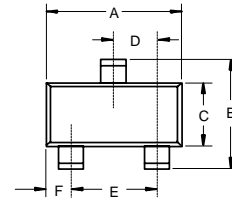
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



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

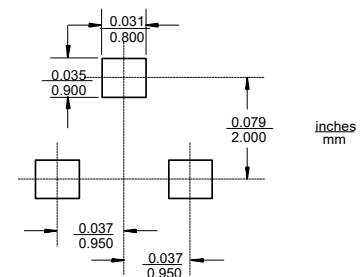
SOT-23



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 _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R			
	min.	typ.	max.	μA	V					min.	max.		
	V	V	V			mV/°C	mV/°C	mA					
AZ23C2V4HE3	2.28	2.4	2.56	5	100	600	1	50	1	-3.5	0	5	KD0
AZ23C2V7HE3	2.5	2.7	2.9	5	100	600	1	20	1	-3.5	0	5	KD1
AZ23C3V0HE3	2.8	3	3.2	5	95	600	1	10	1	-3.5	0	5	KD2
AZ23C3V3HE3	3.1	3.3	3.5	5	95	600	1	5	1	-3.5	0	5	KD3
AZ23C3V6HE3	3.4	3.6	3.8	5	90	600	1	5	1	-3.5	0	5	KD4
AZ23C3V9HE3	3.7	3.9	4.1	5	90	600	1	3	1	-3.5	0	5	KD5
AZ23C4V3HE3	4	4.3	4.6	5	90	600	1	3	1	-3.5	0	5	KD6
AZ23C4V7HE3	4.4	4.7	5	5	80	500	1	3	2	-3.5	0.2	5	KD7
AZ23C5V1HE3	4.8	5.1	5.4	5	60	480	1	2	2	-2.7	1.2	5	KD8
AZ23C5V6HE3	5.2	5.6	6	5	40	400	1	1	2	-2	2.5	5	KD9
AZ23C6V2HE3	5.8	6.2	6.6	5	10	150	1	3	4	0.4	3.7	5	KDA
AZ23C6V8HE3	6.4	6.8	7.2	5	15	80	1	2	4	1.2	4.5	5	KDB
AZ23C7V5HE3	7	7.5	7.9	5	15	80	1	1	5	2.5	5.3	5	KDC
AZ23C8V2HE3	7.7	8.2	8.7	5	15	80	1	0.7	5	3.2	6.2	5	KDD
AZ23C9V1HE3	8.5	9.1	9.6	5	15	100	1	0.5	6	3.8	7	5	KDE
AZ23C10HE3	9.4	10	10.6	5	20	150	1	0.2	7	4.5	8	5	KDF
AZ23C11HE3	10.4	11	11.6	5	20	150	1	0.1	8	5.4	9	5	KDG
AZ23C12HE3	11.4	12	12.7	5	25	150	1	0.1	8	6	10	5	KDH
AZ23C13HE3	12.4	13	14.1	5	30	170	1	0.1	8	7	11	5	KDI
AZ23C15HE3	13.8	15	15.6	5	30	200	1	0.1	10.5	9.2	13	5	KDJ
AZ23C16HE3	15.3	16	17.1	5	40	200	1	0.1	11.2	10.4	14	5	KDK
AZ23C18HE3	16.8	18	19.1	5	45	225	1	0.1	12.6	12.4	16	5	KDL
AZ23C20HE3	18.8	20	21.2	5	55	225	1	0.1	14	14.4	18	5	KDM
AZ23C22HE3	20.8	22	23.3	5	55	250	1	0.1	15.4	16.4	20	5	KDN
AZ23C24HE3	22.8	24	25.6	5	70	250	1	0.1	16.8	18.4	22	5	KDO
AZ23C27HE3	25.1	27	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2	KDP
AZ23C30HE3	28	30	32	2	80	300	0.5	0.1	21	24.4	29.4	2	KDQ
AZ23C33HE3	31	33	35	2	80	325	0.5	0.1	23.1	27.4	33.4	2	KDR
AZ23C36HE3	34	36	38	2	90	350	0.5	0.1	25.2	30.4	37.4	2	KDS
AZ23C39HE3	37	39	41	2	130	350	0.5	0.1	27.3	33.4	41.2	2	KDT

Curve Characteristics

Fig. 1 - Power Derating Curve

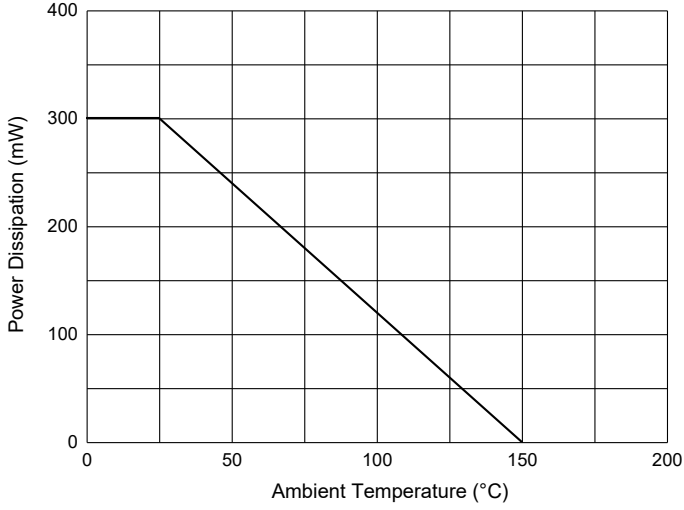


Fig. 2 - Typical Zener Breakdown Characteristics

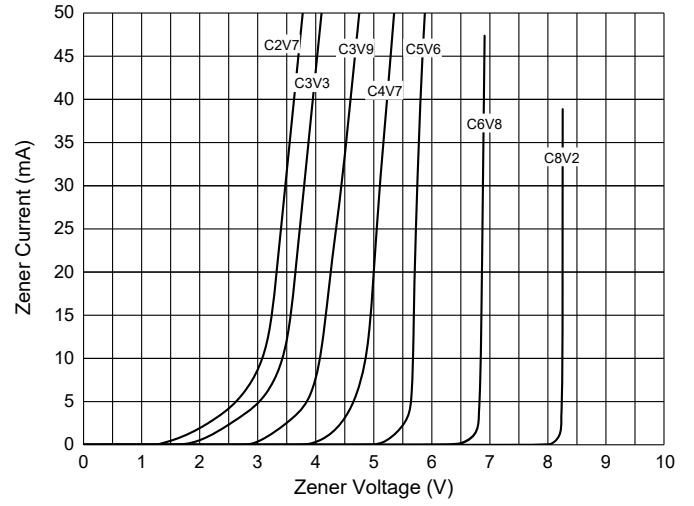
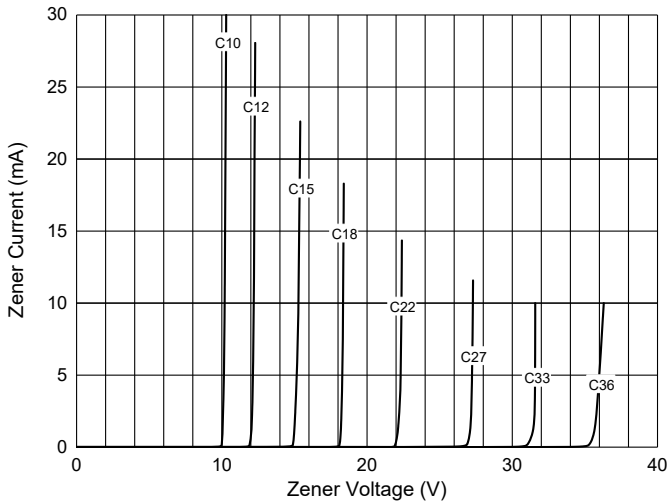


Fig. 3 - Typical Zener Breakdown Characteristics



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.