

Features

- Dual Zeners in Common Anode Configuration
- ΔV_z for Both Diodes in One Case is $\leq 5\%$.
- 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

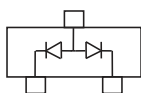
Maximum Ratings

- Operating Junction Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Thermal Resistance : 417°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	300	mW

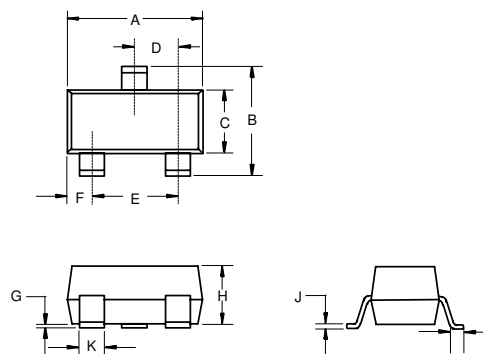
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



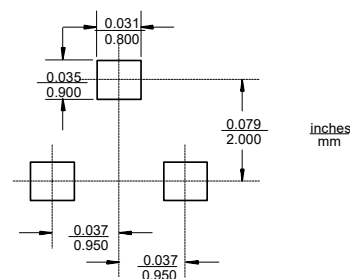
300 mW
Zener Diode
2.7 to 51 Volts

SOT-23



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 ⁽²⁾	Maximum Zener Impedance ⁽³⁾		Maximum Zener Impedance ⁽³⁾		Min reverse Voltage ⁽²⁾		Typical Temperature coefficient	Marking Code
	V _Z @ I _{ZT}	I _{ZT}	Z _{VT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R	V _R	T _c	
	V	mA	Ω	Ω	mA	μA	V	%/°C	
AZ23C2V7	2.5-2.9	5	83	500	1	0.1	-	-0.065	KD1
AZ23C3V0	2.8-3.2	5	95	500	1	0.1	-	-0.060	KD2
AZ23C3V3	3.1-3.5	5	95	500	1	0.1	-	-0.055	KD3
AZ23C3V6	3.4-3.8	5	95	500	1	0.1	-	-0.055	KD4
AZ23C3V9	3.7-4.1	5	95	500	1	0.1	-	-0.050	KD5
AZ23C4V3	4.0-4.6	5	95	500	1	0.1	-	-0.035	KD6
AZ23C4V7	4.4-5.0	5	78	500	1	0.1	-	-0.015	KD7
AZ23C5V1	4.8-5.4	5	60	480	1	0.1	0.8	+0.005	KD8
AZ23C5V6	5.2-6.0	5	40	400	1	0.1	1.0	+0.020	KD9
AZ23C6V2	5.8-6.6	5	10	200	1	0.1	2.0	+0.030	KDA
AZ23C6V8	6.4-7.2	5	8.0	150	1	0.1	3.0	+0.045	KDB
AZ23C7V5	7.0-7.9	5	7.0	50	1	0.1	5.0	+0.050	KDC
AZ23C8V2	7.7-8.7	5	7.0	50	1	0.1	6.0	+0.055	KDD
AZ23C9V1	8.5-9.6	5	10	50	1	0.1	7.0	+0.065	KDE
AZ23C10	9.4-10.6	5	15	70	1	0.1	7.5	+0.065	KDF
AZ23C11	10.4-11.6	5	20	70	1	0.1	8.5	+0.070	KDG
AZ23C12	11.4-12.7	5	20	90	1	0.1	9.0	+0.075	KDH
AZ23C13	12.4-14.1	5	25	110	1	0.1	10.0	+0.080	KDI
AZ23C15	13.8-15.6	5	30	110	1	0.1	11.0	+0.080	KDJ
AZ23C16	15.3-17.1	5	40	170	1	0.1	12.0	+0.090	KDK
AZ23C18	16.8-19.1	5	50	170	1	0.1	14.0	+0.090	KDL
AZ23C20	18.8-21.2	5	50	220	1	0.1	15.0	+0.090	KDM
AZ23C22	20.8-23.3	5	55	220	1	0.1	17.0	+0.090	KDN
AZ23C24	22.8-25.6	5	80	220	1	0.1	18.0	+0.090	KDO
AZ23C27	25.1-28.9	5	80	250	1	0.1	20.0	+0.090	KDP
AZ23C30	28-32	5	80	250	1	0.1	22.5	+0.090	KDQ
AZ23C33	31-35	5	80	250	1	0.1	25.0	+0.090	KDR
AZ23C36	34-38	5	90	250	1	0.1	27.0	+0.090	KDS
AZ23C39	37-41	5	90	300	1	0.1	29.0	+0.110	KDT
AZ23C43	40-46	5	100	700	1	0.1	32.0	+0.110	D30
AZ23C47	44-50	5	100	750	1	0.1	35.0	+0.110	D31
AZ23C51	48-54	5	100	750	1	0.1	38.0	+0.110	D32

Note :

2. Short duration test pulse used to minimize self-heating effect.
3. f=1KHz.

Curve Characteristics

Fig. 1 - Power Derating Curve

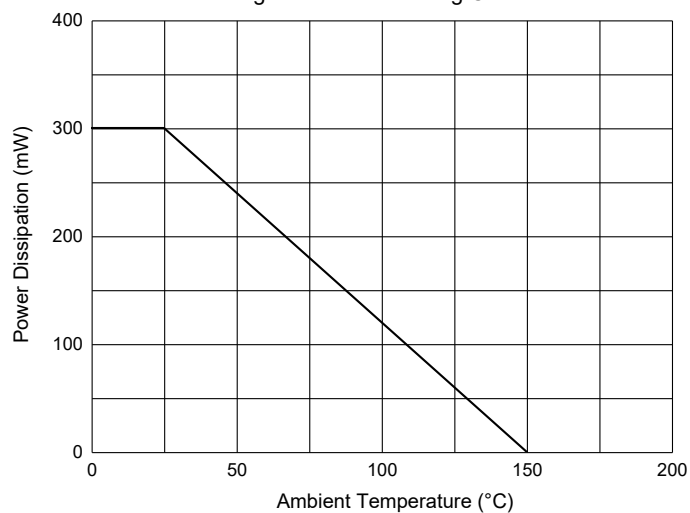


Fig. 2 - Typical Zener Breakdown Characteristics

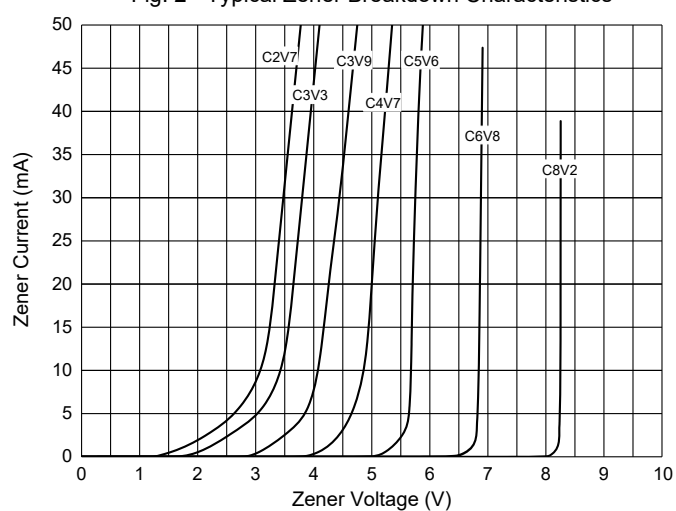
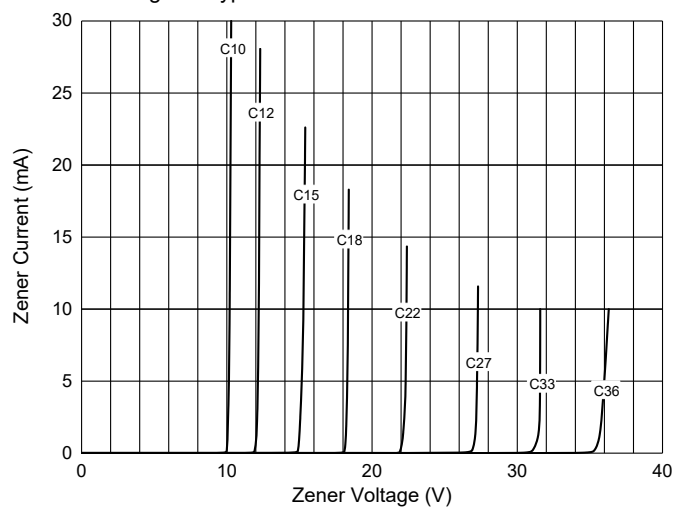


Fig. 3 - Typical Zener Breakdown Characteristics



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.