



**THE DATASHEET OF
AZ23C3V9-TP**



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

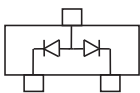
Maximum Ratings

- 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

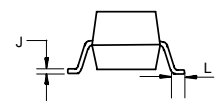
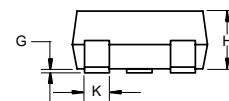
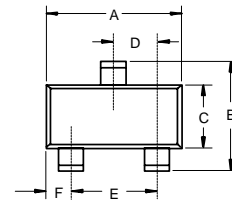
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



300 mW Zener Diode 2.7 to 51 Volts

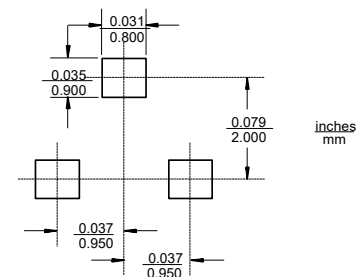
SOT-23



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 ⁽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 _{ZT} @ 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

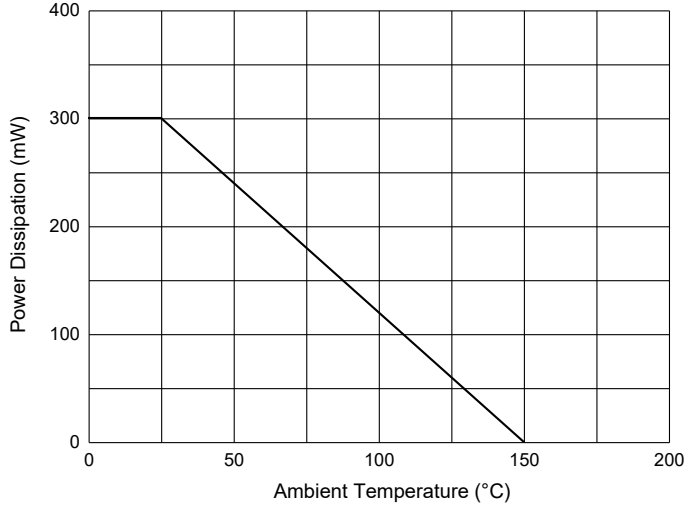


Fig. 2 - Typical Zener Breakdown Characteristics

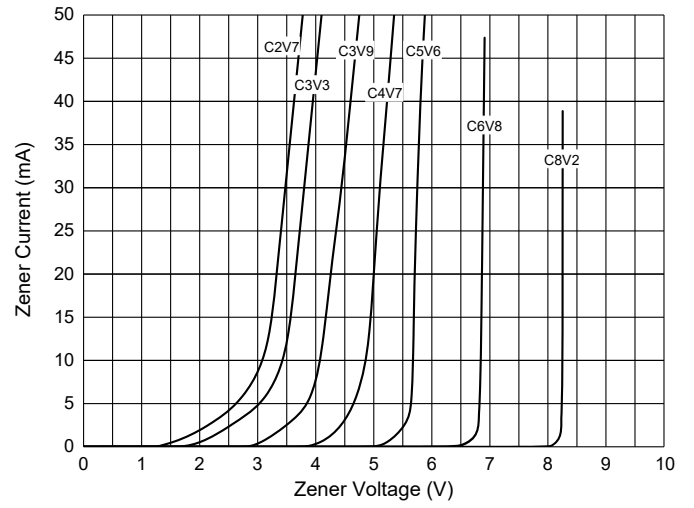
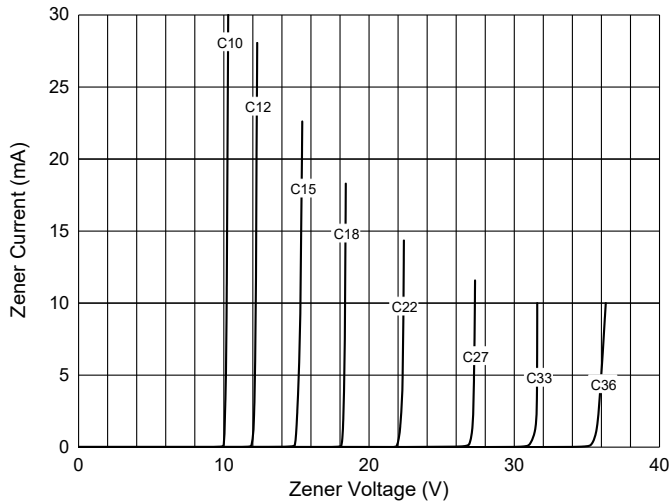


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

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

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