

## Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Dual Zeners in Common Cathode Configuration
- $\Delta V_Z$  for Both Diodes in One Case is  $\leq 5\%$ .
- Ideally Suited for Automated Insertion
- 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)

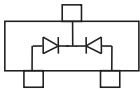
## Maximum Ratings

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

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	300	mW

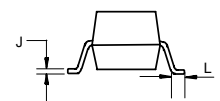
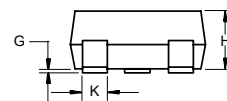
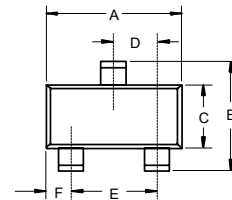
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Internal Structure



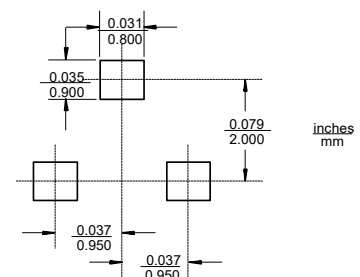
# 300 mW Zener Diode 2.4 to 47 Volts

## SOT-23



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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			Maximum Zener Impedance		Maximum Zener Impedance		Maximum Reverse Current $I_R(\text{Max}) @ V_R$		Marking Code
	$V_Z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_{ZK}$	$Z_{ZK} @ I_{ZK}$	$I_R$	$V_R$	
	Min.(V)	Nom(V)	Max.(V)	mA	$\Omega$	mA	$\Omega$	$\mu\text{A}$	V	
DZ23C2V4HE3	2.28	2.4	2.52	5.0	85	1.00	600	100.0	1.0	V0
DZ23C2V7HE3	2.57	2.7	2.84	5.0	83	1.00	600	75	1.0	KV1
DZ23C3V0HE3	2.85	3.0	3.15	5.0	95	1.00	600	50	1.0	KV2
DZ23C3V3HE3	3.14	3.3	3.47	5.0	95	1.00	600	25	1.0	KV3
DZ23C3V6HE3	3.42	3.6	3.78	5.0	95	1.00	600	15	1.0	KV4
DZ23C3V9HE3	3.71	3.9	4.10	5.0	95	1.00	600	10	1.0	KV5
DZ23C4V3HE3	4.09	4.3	4.52	5.0	95	1.00	600	5.0	1.0	KV6
DZ23C4V7HE3	4.47	4.7	4.94	5.0	78	1.00	500	5.0	2.0	V7
DZ23C5V1HE3	4.85	5.1	5.36	5.0	60	1.00	480	0.1	0.8	KV8
DZ23C5V6HE3	5.32	5.6	5.88	5.0	40	1.00	400	0.1	1.0	KV9
DZ23C6V2HE3	5.89	6.2	6.51	5.0	10	1.00	150	0.1	2.0	KVA
DZ23C6V8HE3	6.46	6.8	7.14	5.0	8	1.00	80	0.1	3.0	KVB
DZ23C7V5HE3	7.13	7.5	7.88	5.0	7	1.00	80	0.1	5.0	KVC
DZ23C8V2HE3	7.79	8.2	8.61	5.0	7	1.00	80	0.1	6.0	KVD
DZ23C9V1HE3	8.65	9.1	9.56	5.0	10	1.00	100	0.1	7.0	KVE
DZ23C10HE3	9.50	10	10.50	5.0	15	1.00	150	0.1	7.5	KVF
DZ23C11HE3	10.45	11	11.55	5.0	20	1.00	150	0.1	8.5	KVG
DZ23C12HE3	11.40	12	12.60	5.0	20	1.00	150	0.1	9.0	KVH
DZ23C13HE3	12.35	13	13.65	5.0	25	1.00	170	0.1	10.0	KVI
DZ23C14HE3	13.30	14	14.70	5.0	25	1.00	170	0.1	10.5	VA
DZ23C15HE3	14.25	15	15.75	5.0	30	1.00	200	0.1	11.0	V19
DZ23C16HE3	15.20	16	16.80	5.0	40	1.00	200	0.1	12.0	KVK
DZ23C17HE3	16.15	17	17.85	5.0	40	1.00	200	0.1	13.0	VB
DZ23C18HE3	17.10	18	18.90	5.0	50	1.00	225	0.1	14.0	KVL
DZ23C20HE3	19.00	20	21.00	5.0	50	1.00	225	0.1	15.0	KVM
DZ23C22HE3	20.90	22	23.10	5.0	55	1.00	250	0.1	17.0	KVN
DZ23C24HE3	22.80	24	25.20	5.0	80	1.00	250	0.1	18.0	KVO
DZ23C27HE3	25.65	27	28.35	5.0	80	1.00	300	0.1	20.0	KVP
DZ23C28HE3	26.60	28	29.40	5.0	80	1.00	300	0.1	22.0	VC
DZ23C30HE3	28.50	30	31.50	5.0	80	1.00	300	0.1	22.5	KVQ
DZ23C33HE3	31.35	33	34.65	5.0	80	1.00	325	0.1	25.0	KVR
DZ23C36HE3	34.20	36	37.80	5.0	90	1.00	350	0.1	27.0	KVS
DZ23C39HE3	37.05	39	40.95	5.0	90	1.00	350	0.1	29.0	KVT
DZ23C43HE3	40.85	43	45.15	5.0	100	1.00	700	0.1	32.0	KVU
DZ23C47HE3	44.65	47	49.35	5.0	100	1.00	750	0.1	35.0	KVV

**Curve Characteristics**

Fig. 1 - Power Derating Curve

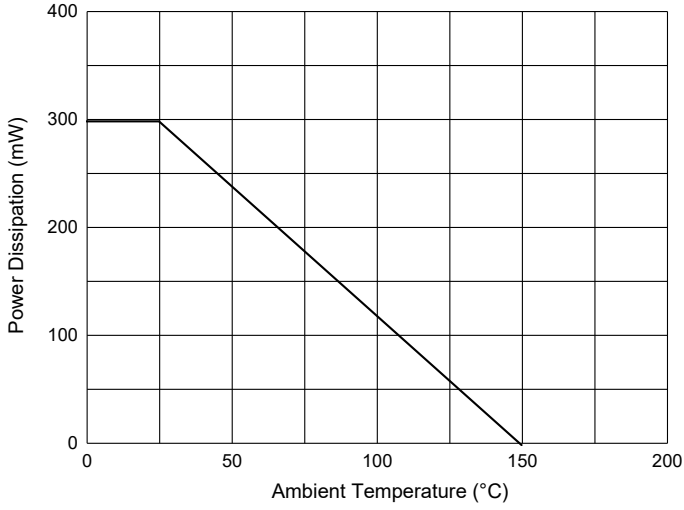


Fig. 2 - Typical Zener Breakdown Characteristics

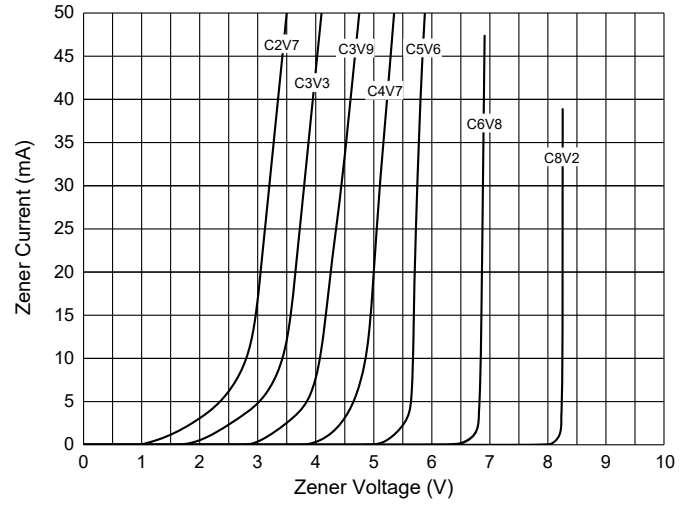
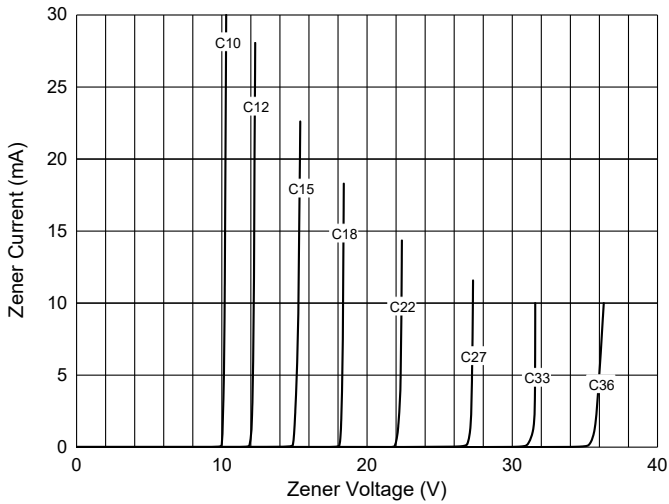


Fig. 3 - Typical Zener Breakdown Characteristics



## Ordering Information

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

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