

## Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes
- 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)

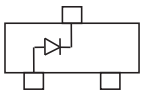
## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 357°C/W Junction to Ambient

Parameter	Symbol	Rating	Conditions
Power Dissipation	$P_D$	350mW	Note 2
Peak Forward Surge Current	$I_{FSM}$	2.0A	Note 3
Maximum Forward Voltage	$V_F$	0.9V	$I_F=10mA$

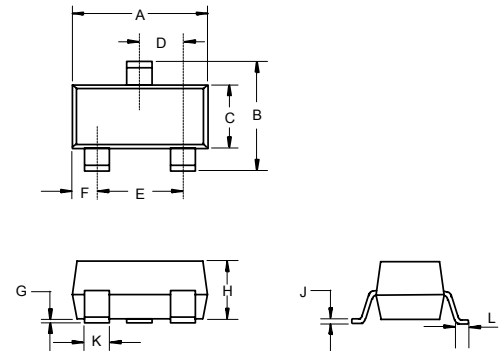
- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.  
 2. Mounted on 5.0mm<sup>2</sup> (.013mm thick) Land Areas.  
 3. Measured on 8.3ms, Single Half Sine-wave or Equivalent Square Wave

## Internal Structure



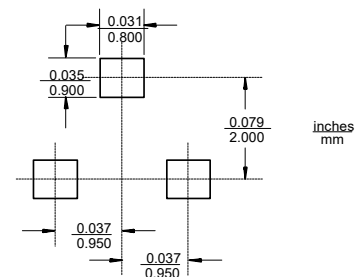
**350 mWatt  
Zener Diodes  
2.4 to 47 Volts**

## 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 <sup>(4,5)</sup>			Maximum Zener Impedance <sup>(6)</sup>				Maximum Reverse Current I <sub>R</sub> @ V <sub>R</sub>		Typical Temperature Coefficient		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>ZK</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>	@I <sub>ZT</sub>		
	Min.(V)	Nom(V)	Max.(V)	mA	Ω	mA	Ω	μA	V	Min.(mV/°C)	Max.(mV/°C)	
BZX84C2V4HE3	2.28	2.40	2.52	5	100	1	600	50	1.0	-3.5	0	Z11
BZX84C2V7HE3	2.50	2.70	2.90	5	100	1	600	20	1.0	-3.5	0	Z12
BZX84C3V0HE3	2.80	3.00	3.20	5	95	1	600	10	1.0	-3.5	0	Z13
BZX84C3V3HE3	3.10	3.30	3.50	5	95	1	600	5	1.0	-3.5	0	Z14
BZX84C3V6HE3	3.40	3.60	3.80	5	90	1	600	5	1.0	-3.5	0	Z15
BZX84C3V9HE3	3.70	3.90	4.10	5	90	1	600	3	1.0	-3.5	0	Z16
BZX84C4V3HE3	4.00	4.30	4.60	5	90	1	600	3	1.0	-3.5	0	Z17
BZX84C4V7HE3	4.40	4.70	5.00	5	80	1	500	3	2.0	-3.5	0.2	Z1
BZX84C5V1HE3	4.80	5.10	5.40	5	60	1	480	2	2.0	-2.7	1.2	Z2
BZX84C5V6HE3	5.20	5.60	6.00	5	40	1	400	1	2.0	-2	2.5	Z3
BZX84C6V2HE3	5.80	6.20	6.60	5	10	1	150	3	4.0	0.4	3.7	Z4
BZX84C6V8HE3	6.40	6.80	7.20	5	15	1	80	2	4.0	1.2	4.5	Z5
BZX84C7V5HE3	7.00	7.50	7.90	5	15	1	80	1	5.0	2.5	5.3	Z6
BZX84C8V2HE3	7.70	8.20	8.70	5	15	1	80	0.7	5.0	3.2	6.2	Z7
BZX84C9V1HE3	8.50	9.10	9.60	5	15	1	100	0.5	6.0	3.8	7.0	Z8
BZX84C10HE3	9.40	10.00	10.60	5	20	1	150	0.2	7.0	4.5	8.0	Z9
BZX84C11HE3	10.40	11.00	11.60	5	20	1	150	0.1	8.0	5.4	9.0	Y1
BZX84C12HE3	11.40	12.00	12.70	5	25	1	150	0.1	8.0	6.0	10	Y2
BZX84C13HE3	12.40	13.00	14.10	5	30	1	170	0.1	8.0	7.0	11	Y3
BZX84C15HE3	13.80	15.00	15.60	5	30	1	200	0.1	10.5	9.2	13	Y4
BZX84C16HE3	15.30	16.00	17.10	5	40	1	200	0.1	11.2	10.4	14	Y5
BZX84C18HE3	16.80	18.00	19.10	5	45	1	225	0.1	12.6	12.4	16	Y6
BZX84C20HE3	18.80	20.00	21.20	5	55	1	225	0.1	14.0	14.4	18	Y7
BZX84C22HE3	20.80	22.00	23.30	5	55	1	250	0.1	15.4	16.4	20	Y8
BZX84C24HE3	22.80	24.00	25.60	5	70	1	250	0.1	16.8	18.4	22	Y9
BZX84C27HE3	25.10	27.00	28.90	2	80	1	300	0.1	18.9	21.4	25.3	Y10
BZX84C30HE3	28.00	30.00	32.00	2	80	1	300	0.1	21.0	24.4	29.4	Y11
BZX84C33HE3	31.00	33.00	35.00	2	80	1	325	0.1	23.1	27.4	33.4	Y12
BZX84C36HE3	34.00	36.00	38.00	2	90	1	350	0.1	25.2	30.4	37.4	Y13
BZX84C39HE3	37.00	39.00	41.00	2	130	1	350	0.1	27.3	33.4	41.2	Y14
BZX84C43HE3	40.85	43.00	45.15	5	150	1	375	0.1	30.10	37.6	50.6	Y15
BZX84C47HE3	44.65	47.00	49.35	5	170	1	375	0.1	32.90	42	55.8	Y16

Note :

- Standard zener voltage tolerance is +/- 5% with a 'C' suffix from BZX84C2V4HE3~BZX84C47HE3
- Zener Voltage (V<sub>Z</sub>) Measurement. Guarantess the Zener Voltage When Measured at 90 Seconds While Maintaining the Lead Temperature (T<sub>L</sub>) at 25°C from the Diode Body.
- Zener Impedance (Z<sub>Z</sub>) Derivation. The zener Impedance is Derived from the 60 Cycle AC Voltage, Which Results When an AC Current Having an rms Value Equal to 10% of the DC Zener Current (I<sub>ZT</sub> or I<sub>ZK</sub>) is Superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>.

**Curve Characteristics**

Fig. 1 - Power Derating Curve

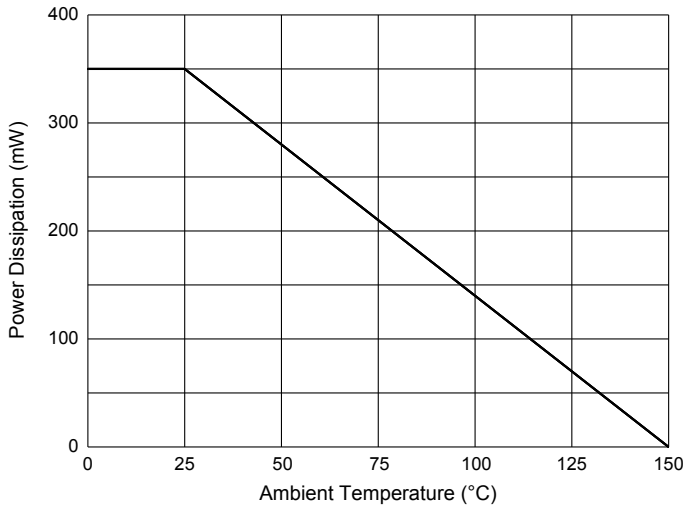


Fig. 2 - Typical Zener Breakdown Characteristics

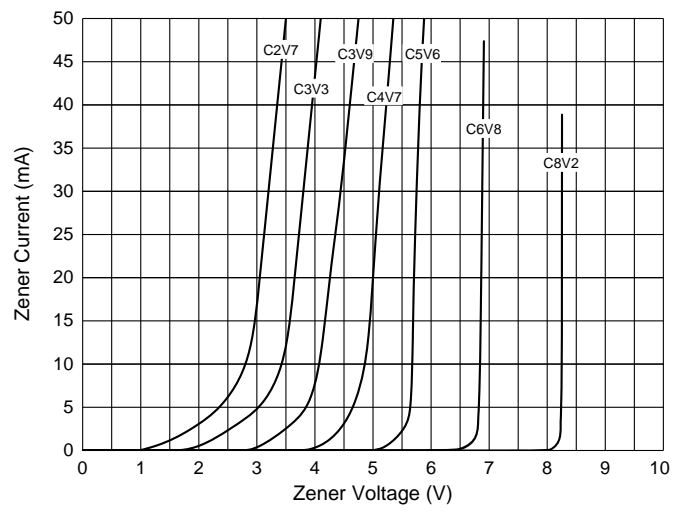
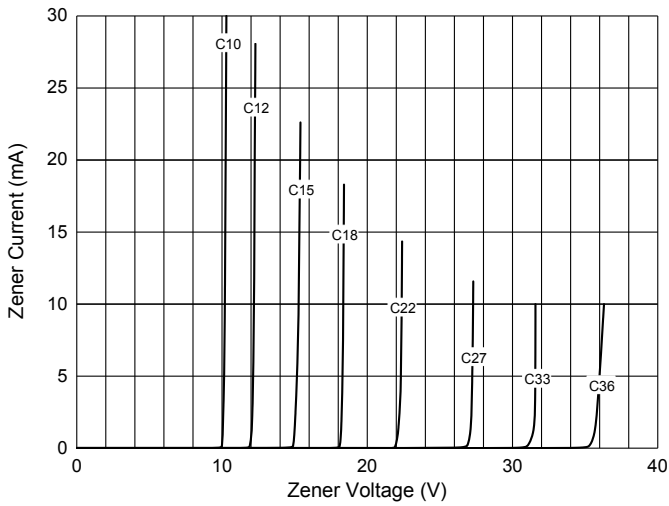


Fig. 3 - Typical Zener Breakdown Characteristics



## 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.

单击下面可查看定价，库存，交付和生命周期等信息

[>>MCC\(美微科\)](#)