

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

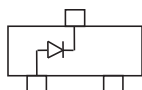
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	350mW	Note 2
Peak Forward Surge Current	I_{FSM}	2.0A	Note 3
Maximum Forward Voltage	V_F	0.9V	$I_F=10mA$

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 5.0mm² (.013mm thick) Land Areas.

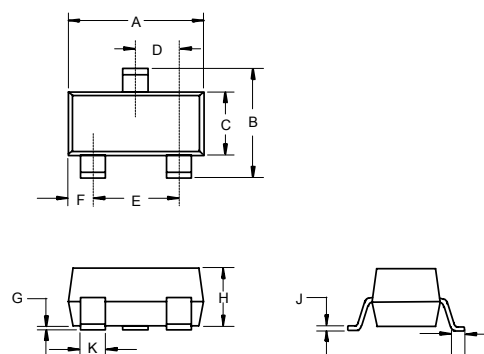
3. Measured on 8.3ms, Single Half Sine-wave or Equivalent Square Wave

Internal Structure



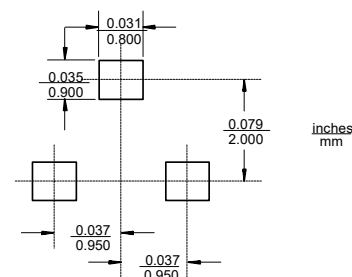
**350 mWatt
Zener Diodes
2.4 to 36 Volts**

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 ^(4,5)			Maximum Zener Impedance ⁽⁶⁾				Maximum Reverse Current I _R (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	Ω	mA	Ω	μA	V	
BZX84B4V3HE3	4.21	4.30	4.39	5	90	1	600	3.0	1.0	Z17
BZX84B4V7HE3	4.61	4.70	4.79	5	80	1	500	3.0	2.0	Z1
BZX84B5V1HE3	5.00	5.10	5.20	5	60	1	480	2.0	2.0	Z22
BZX84B5V6HE3	5.49	5.60	5.71	5	40	1	400	1.0	2.0	Z23
BZX84B6V2HE3	6.08	6.20	6.32	5	10	1	150	3.0	4.0	Z24
BZX84B6V8HE3	6.66	6.80	6.94	5	15	1	80	2.0	4.0	Z25
BZX84B7V5HE3	7.35	7.50	7.65	5	15	1	80	1.0	5.0	Z26
BZX84B8V2HE3	8.04	8.20	8.36	5	15	1	80	0.7	5.0	Z27
BZX84B9V1HE3	8.92	9.10	9.28	5	15	1	100	0.5	6.0	Z28
BZX84B10HE3	9.80	10.00	10.20	5	20	1	150	0.2	7.0	Z29
BZX84B11HE3	10.78	11.00	11.22	5	20	1	150	0.1	8.0	WH
BZX84B12HE3	11.76	12.00	12.24	5	25	1	150	0.1	8.0	2Y2
BZX84B13HE3	12.74	13.00	13.26	5	30	1	170	0.1	8.0	2Y3
BZX84B15HE3	14.70	15.00	15.30	5	30	1	200	0.1	10.5	2Y4
BZX84B16HE3	15.68	16.00	16.32	5	40	1	200	0.1	11.2	2Y5
BZX84B18HE3	17.64	18.00	18.36	5	45	1	225	0.1	12.6	2Y6
BZX84B20HE3	19.60	20.00	20.40	5	55	1	225	0.1	14.0	WO
BZX84B22HE3	21.56	22.00	22.44	5	55	1	250	0.1	15.4	Y8
BZX84B24HE3	23.52	24.00	24.48	5	70	1	250	0.1	16.8	Y9
BZX84B27HE3	26.46	27.00	27.54	5	80	1	300	0.1	18.9	Y10
BZX84B30HE3	29.40	30.00	30.60	5	80	1	300	0.1	21.0	WT
BZX84B33HE3	32.34	33.00	33.66	5	80	1	325	0.1	23.1	Y12
BZX84B36HE3	35.28	36.00	36.72	5	90	1	350	0.1	25.2	Y13

Note :

4. Suffix 'B' is +/- 2% tolerance from BZX84B4V3HE3~BZX84B36HE3.

5. Zener Voltage (V_Z) Measurement. Guarantee the Zener Voltage When Measured at 90 Seconds While Maintaining the Lead Temperature (T_L) at 25°C from the Diode Body.

6. Zener Impedance (Z_Z) 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_{ZT} or I_{ZK}) is Superimposed on I_{ZT} or I_{ZK}.

Curve Characteristics

Fig. 1 - Power Derating Curve

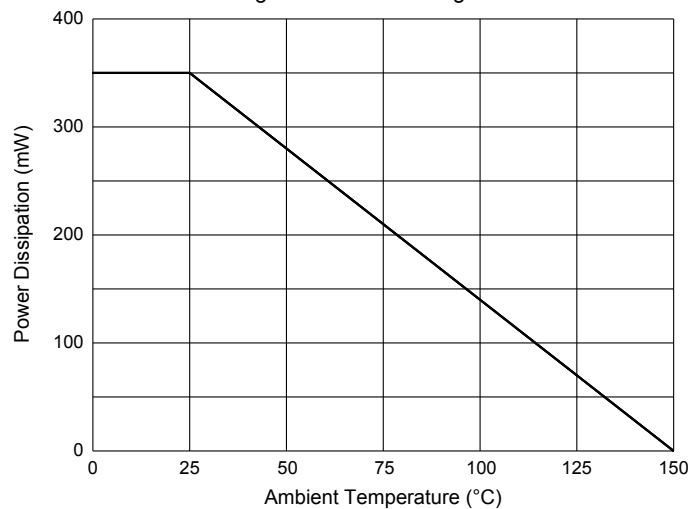


Fig. 2 - Typical Zener Breakdown Characteristics

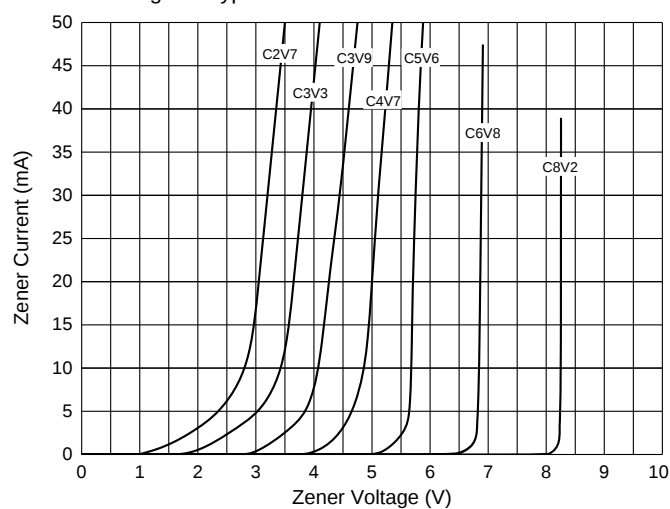
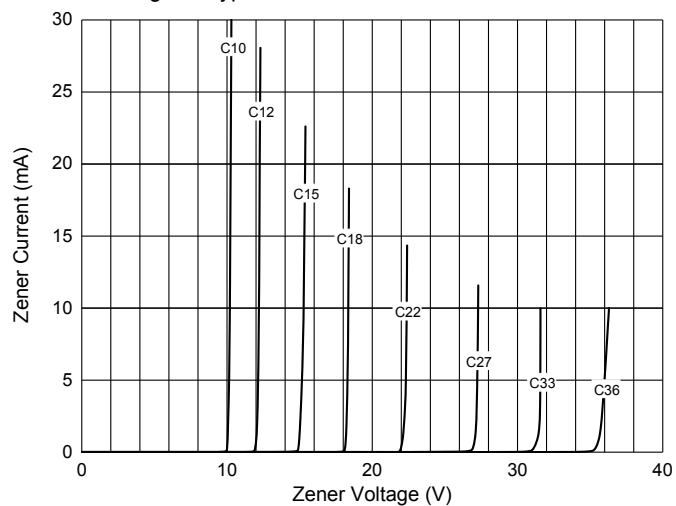


Fig. 3 - Typical Zener Breakdown Characteristics



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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[BZX84B16HE3-TP](#) [BZX84B36HE3-TP](#) [BZX84B5V6HE3-TP](#) [BZX84B6V8HE3-TP](#) [BZX84B10HE3-TP](#)
[BZX84B11HE3-TP](#) [BZX84B12HE3-TP](#) [BZX84B13HE3-TP](#) [BZX84B15HE3-TP](#) [BZX84B18HE3-TP](#) [BZX84B6V2HE3-](#)
[TP](#) [BZX84B7V5HE3-TP](#) [BZX84B8V2HE3-TP](#) [BZX84B9V1HE3-TP](#) [BZX84B4V3HE3-TP](#) [BZX84B4V7HE3-TP](#)
[BZX84B5V1HE3-TP](#) [BZX84B20HE3-TP](#) [BZX84B22HE3-TP](#) [BZX84B24HE3-TP](#) [BZX84B27HE3-TP](#) [BZX84B30HE3-](#)
[TP](#) [BZX84B33HE3-TP](#)