

Features

- Planar Die Construction
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes
- Halogen Free. "Green" Device (Note 1)
- 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 :833°C/W Junction to Ambient

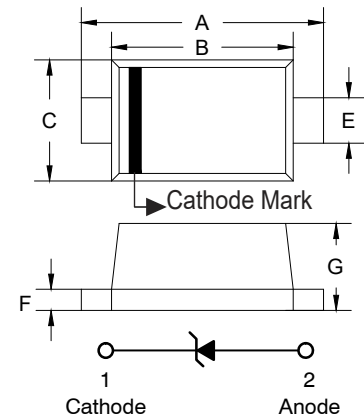
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	150mW	Note 2
Maximum Forward Voltage	V_F	0.9V	$I_F=10mA$

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

⊃ [⚡ K2 ⚡ Valid Provided That Device Terminals are Kept at Ambient Temperature.

150 mWatt Zener Diodes 2.4 to 39 Volts

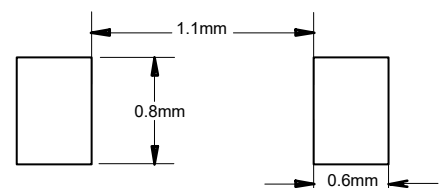
SOD-523



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.043	0.051	1.10	1.30	
C	0.030	0.033	0.75	0.85	
E	0.010	0.014	0.25	0.35	
F	0.003	0.008	0.08	0.20	
G	0.020	0.026	0.50	0.65	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage ⁽³⁾			Maximum Zener Impedance ⁽⁴⁾		Maximum Zener Impedance ⁽⁴⁾		Maximum Reverse Current		Typical Temperature Coefficient @ I _{ZT}		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT}	I _{ZK}	Z _{ZK}	I _R	V _R	Min	Max.	
	Min.(V)	Nom(V)	Max.(V)	mA	Ω	mA	Ω	Max.(μA)	V	mV/°C		
BZX584C2V4	2.20	2.4	2.60	5	100	1.0	600	50	1.0	-3.5	0	Z11
BZX584C2V7	2.5	2.7	2.9	5	100	1.0	600	20	1.0	-3.5	0	Z12
BZX584C3V0	2.8	3.0	3.2	5	95	1.0	600	10	1.0	-3.5	0	Z13
BZX584C3V3	3.1	3.3	3.5	5	95	1.0	600	5	1.0	-3.5	0	Z14
BZX584C3V6	3.4	3.6	3.8	5	90	1.0	600	5	1.0	-3.5	0	Z15
BZX584C3V9	3.7	3.9	4.1	5	90	1.0	600	3	1.0	-3.5	0	Z16
BZX584C4V3	4.0	4.3	4.6	5	90	1.0	600	3	1.0	-3.5	0	Z17
BZX584C4V7	4.4	4.7	5.0	5	80	1.0	500	3	2.0	-3.5	0.2	Z1
BZX584C5V1	4.8	5.1	5.4	5	60	1.0	480	2	2.0	-2.7	1.2	Z2
BZX584C5V6	5.2	5.6	6.0	5	40	1.0	400	1	2.0	-2.0	2.5	Z3
BZX584C6V2	5.8	6.2	6.6	5	10	1.0	150	3	4.0	0.4	3.7	Z4
BZX584C6V8	6.4	6.8	7.2	5	15	1.0	80	2	4.0	1.2	4.5	Z5
BZX584C7V5	7.0	7.5	7.9	5	15	1.0	80	1	5.0	2.5	5.3	Z6
BZX584C8V2	7.7	8.2	8.7	5	15	1.0	80	0.7	5.0	3.2	6.2	Z7
BZX584C9V1	8.5	9.1	9.6	5	15	1.0	100	0.5	6.0	3.8	7.0	Z8
BZX584C10	9.4	10	10.6	5	20	1.0	150	0.2	7.0	4.5	8.0	Z9
BZX584C11	10.4	11	11.6	5	20	1.0	150	0.1	8.0	5.4	9.0	Y1
BZX584C12	11.4	12	12.7	5	25	1.0	150	0.1	8.0	6.0	10.0	Y2
BZX584C13	12.4	13	14.1	5	30	1.0	170	0.1	8.0	7.0	11.0	Y3
BZX584C15	13.8	15	15.8	5	30	1.0	200	0.1	10.5	9.2	13.0	Y4
BZX584C16	15.3	16	17.1	5	40	1.0	200	0.1	11.2	10.4	14.0	Y5
BZX584C18	16.8	18	19.1	5	45	1.0	225	0.1	12.6	12.4	16.0	Y6
BZX584C20	18.8	20	21.2	5	55	1.0	225	0.1	14.0	14.4	18.0	Y7
BZX584C22	20.8	22	23.3	5	55	1.0	250	0.1	15.4	16.4	20.0	Y8
BZX584C24	22.8	24	25.6	5	70	1.0	250	0.1	16.8	18.4	22.0	Y9
BZX584C27	25.1	27	28.9	2	80	0.5	300	0.1	18.9	21.4	25.3	Y10
BZX584C30	28.0	30	32.0	2	80	0.5	300	0.1	21.0	24.4	29.4	Y11
BZX584C33	31.0	33	35.0	2	80	0.5	325	0.1	23.1	27.4	33.4	Y12
BZX584C36	34.0	36	38.0	2	90	0.5	350	0.1	25.2	30.4	37.4	Y13
BZX584C39	37.0	39	41.0	2	130	0.5	350	0.1	27.3	33.4	41.2	Y14

Note : 3. Tested with pulses, period = 5ms, pulse width=300us
4. f=1KHz

Curve Characteristics

Fig. 1 - Power Derating Curve

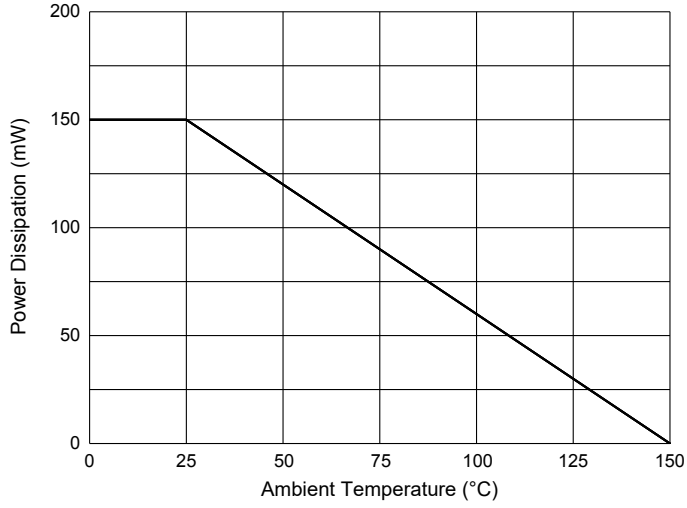


Fig. 2 - Typical Zener Breakdown Characteristics

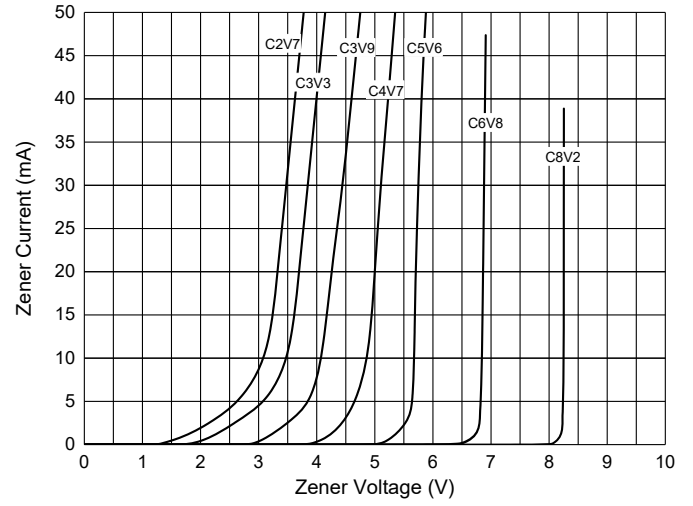
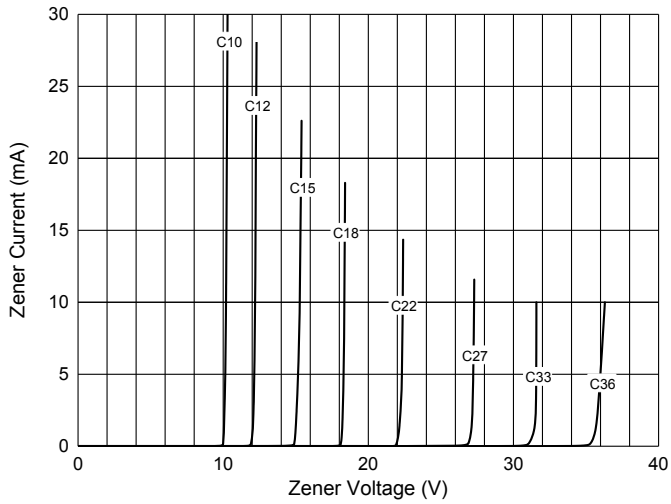


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:8Kpcs/Reel
Part Number-T3P	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.