

Features

- Standard Vz Tolerance is $\pm 2\%$
- Planar Die Construction
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant t ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

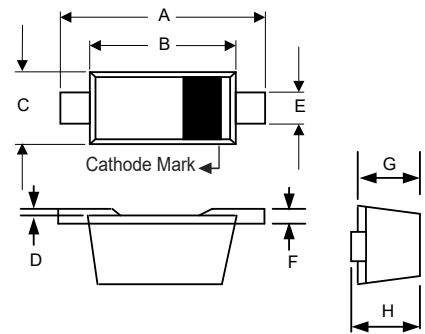
- Operating Junction Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Thermal Resistance(Note 1) : 833°C/W Junction to Ambient

Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	150mW	Note 1
Maximum Forward Voltage	V_F	0.9V	$I_F=10\text{mA}$

Note: 1. Valid provided that device terminals are kept at ambient temperature and mounted on Suggested Pad Layout.

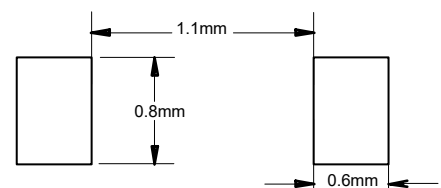
150 mWatt Zener Diodes 2.4 to 39 Volts

SOD-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	
D	0.000	0.003	0.00	0.07	
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	
H	0.020	0.026	0.50	0.65	

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⁾		Maximum Reverse Current		Typical Temperature Coefficient			Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT}	I _{ZK}	Z _{ZK}	I _R	V _R	Min	Max.	I _{ZTC}	
	Min.(V)	Nom(V)	Max.(V)	mA	Ω	mA	Ω	Max.(μA)	V	mV/°C		mA	
BZX584B2V4	2.35	2.4	2.45	5	100	1.0	600	50	1.0	-3.5	0	5	2V1
BZX584B2V7	2.65	2.7	2.75	5	100	1.0	600	20	1.0	-3.5	0	5	2V2
BZX584B3V0	2.94	3	3.06	5	95	1.0	600	10	1.0	-3.5	0	5	2V3
BZX584B3V3	3.23	3.3	3.37	5	95	1.0	600	5	1.0	-3.5	0	5	2V4
BZX584B3V6	3.53	3.6	3.67	5	90	1.0	600	5	1.0	-3.5	0	5	2V5
BZX584B3V9	3.82	3.9	3.98	5	90	1.0	600	3	1.0	-3.5	0	5	2V6
BZX584B4V3	4.21	4.3	4.39	5	90	1.0	600	3	1.0	-3.5	0	5	2V7
BZX584B4V7	4.61	4.7	4.79	5	80	1.0	500	3	2.0	-3.5	0.2	5	2Z1
BZX584B5V1	5.00	5.1	5.20	5	60	1.0	480	2	2.0	-2.7	1.2	5	2Z2
BZX584B5V6	5.49	5.6	5.71	5	40	1.0	400	1	2.0	-2.0	2.5	5	2Z3
BZX584B6V2	6.08	6.2	6.32	5	10	1.0	150	3	4.0	0.4	3.7	5	2Z4
BZX584B6V8	6.66	6.8	6.94	5	15	1.0	80	2	4.0	1.2	4.5	5	2Z5
BZX584B7V5	7.35	7.5	7.65	5	15	1.0	80	1	5.0	2.5	5.3	5	2Z6
BZX584B8V2	8.04	8.2	8.36	5	15	1.0	80	0.7	5.0	3.2	6.2	5	2Z7
BZX584B9V1	8.92	9.1	9.28	5	15	1.0	100	0.5	6.0	3.8	7.0	5	2Z8
BZX584B10	9.80	10	10.20	5	20	1.0	150	0.2	7.0	4.5	8.0	5	2Z9
BZX584B11	10.78	11	11.22	5	20	1.0	150	0.1	8.0	5.4	9.0	5	2Y1
BZX584B12	11.76	12	12.24	5	25	1.0	150	0.1	8.0	6.0	10.0	5	2Y2
BZX584B13	12.74	13	13.26	5	30	1.0	170	0.1	8.0	7.0	11.0	5	2Y3
BZX584B15	14.70	15	15.30	5	30	1.0	200	0.1	10.5	9.2	13.0	5	2Y4
BZX584B16	15.68	16	16.32	5	40	1.0	200	0.1	11.2	10.4	14.0	5	2Y5
BZX584B18	17.64	18	18.36	5	45	1.0	225	0.1	12.6	12.4	16.0	5	2Y6
BZX584B20	19.60	20	20.40	5	55	1.0	225	0.1	14.0	14.4	18.0	5	2Y7
BZX584B22	21.56	22	22.44	5	55	1.0	250	0.1	15.4	16.4	20.0	5	2Y8
BZX584B24	23.52	24	24.48	5	70	1.0	250	0.1	16.8	18.4	22.0	5	2Y9
BZX584B27	26.46	27	27.54	2	80	0.5	300	0.1	18.9	21.4	25.3	5	S5
BZX584B30	29.40	30	30.60	2	80	0.5	300	0.1	21.0	24.4	29.4	5	2X2
BZX584B33	32.34	33	33.66	2	80	0.5	325	0.1	23.1	27.4	33.4	5	2X3
BZX584B36	35.28	36	36.72	2	90	0.5	350	0.1	25.2	30.4	37.4	5	2X4
BZX584B39	38.22	39	39.78	2	130	0.5	350	0.1	27.3	33.4	41.2	5	2X5

Note : 2. Tested with pulses, period = 5ms, pulse width=300us
3. f=1KHz

Curve Characteristics

Fig. 1 - Power Derating Curve

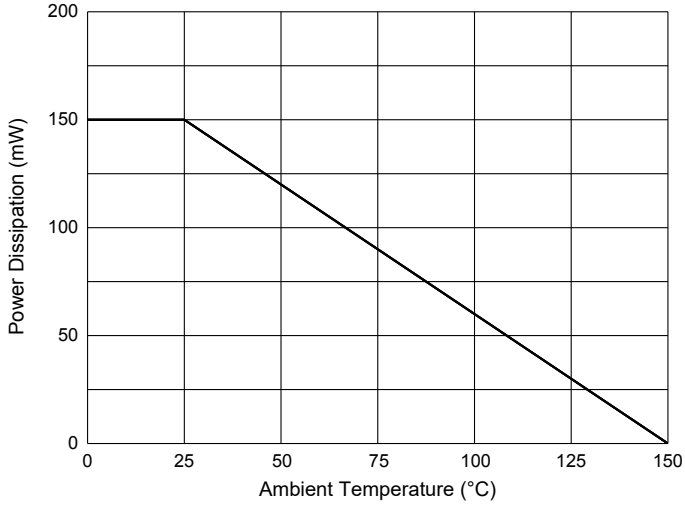


Fig. 2 - Typical Zener Breakdown Characteristics

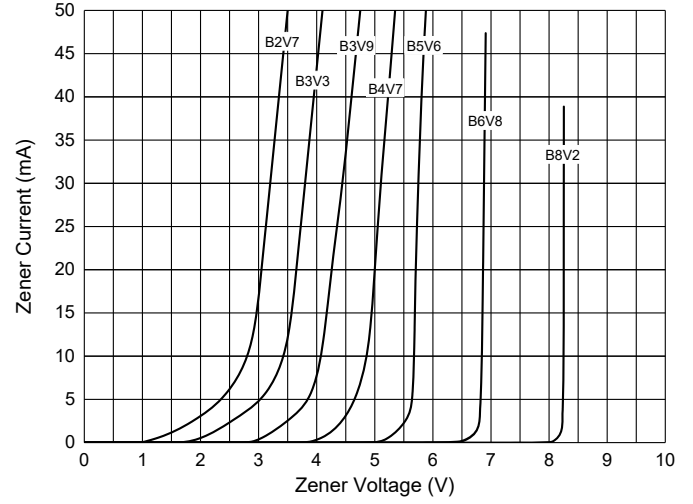
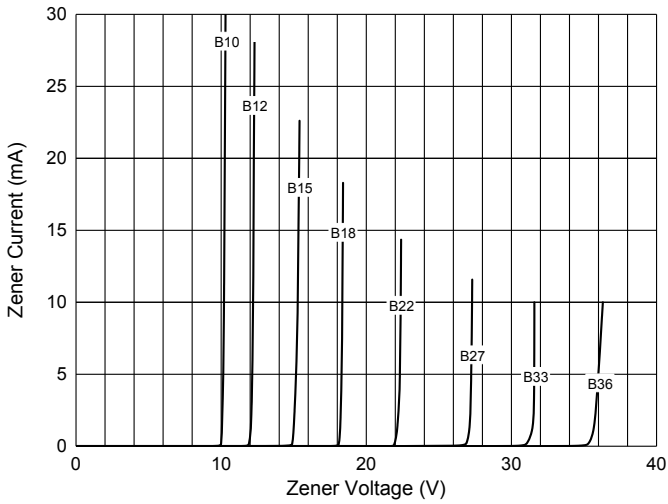


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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.

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.