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

200 mWatt Zener Diodes 2.4V to 39 Volts

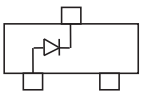
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 625°C/W Junction to Ambient

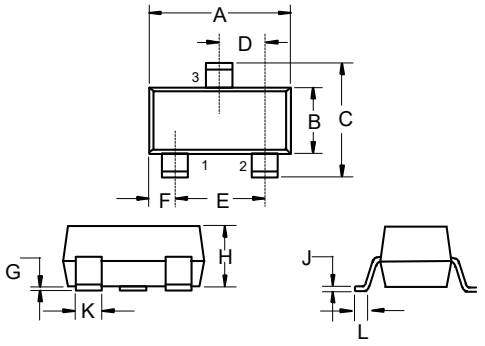
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	200mW	Note 2
Peak Forward Surge Current	I_{FSM}	2.0A	Note 3
Maximum Forward Voltage	V_F	1.2V	I_F=100mA

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^2 (0.013mm thick) Land Areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

Internal Structure

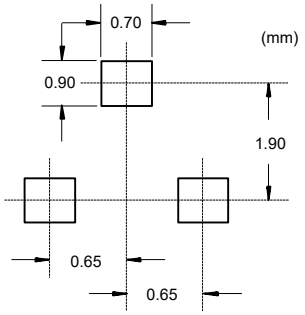


SOT-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

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 @ 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	
BZX84C2V4W	2.28	2.4	2.52	5	100	1	600	50	1	KRB
BZX84C2V7W	2.5	2.7	2.9	5	100	1	600	20	1	KRC
BZX84C3V0W	2.8	3	3.2	5	95	1	600	10	1	KRD
BZX84C3V3W	3.1	3.3	3.5	5	95	1	600	5.0	1	KRE
BZX84C3V6W	3.4	3.6	3.8	5	90	1	600	5.0	1	KRF
BZX84C3V9W	3.7	3.9	4.1	5	90	1	600	3.0	1	KRG
BZX84C4V3W	4	4.3	4.6	5	90	1	600	3.0	1	KRH
BZX84C4V7W	4.4	4.7	5	5	80	1	500	3.0	2	KR1
BZX84C5V1W	4.8	5.1	5.4	5	60	1	480	2.0	2.0	KR2
BZX84C5V6W	5.2	5.6	6	5	40	1	400	1.0	2.0	KR3
BZX84C6V2W	5.8	6.2	6.6	5	10	1	150	3.0	4.0	KR4
BZX84C6V8W	6.4	6.8	7.2	5	15	1	80	2.0	4.0	KR5
BZX84C7V5W	7	7.5	7.9	5	15	1	80	1.0	5	KR6
BZX84C8V2W	7.7	8.2	8.7	5	15	1	80	0.7	5	KR7
BZX84C9V1W	8.5	9.1	9.6	5	15	1	100	0.5	6	KR8
BZX84C10W	9.4	10	10.6	5	20	1	150	0.2	7.0	KR9
BZX84C11W	10.4	11	11.6	5	20	1	150	0.1	8.0	KP1
BZX84C12W	11.4	12	12.7	5	25	1	150	0.1	8.0	KP2
BZX84C13W	12.4	13	14.1	5	30	1	170	0.1	8.0	KP3
BZX84C15W	13.8	15	15.6	5	30	1	200	0.1	10.5	KP4
BZX84C16W	15.3	16	17.1	5	40	1	200	0.1	11.2	KP5
BZX84C18W	16.8	18	19.1	5	45	1	225	0.1	12.6	KP6
BZX84C20W	18.8	20	21.2	5	55	1	225	0.1	14.0	KP7
BZX84C22W	20.8	22	23.3	5	55	1	250	0.1	15.4	KP8
BZX84C24W	22.8	24	25.6	5	70	1	250	0.1	16.8	KP9
BZX84C27W	25.1	27	28.9	5	80	1	300	0.1	18.9	KPA
BZX84C30W	28	30	32	5	80	1	300	0.1	21.0	KPB
BZX84C33W	31	33	35	5	80	1	325	0.1	23.1	KPC
BZX84C36W	34	36	38	5	90	1	350	0.1	25.2	KPD
BZX84C39W	37	39	41	5	130	1	350	0.1	27.3	KPE

Note:

4. Tolerance and Type Number Designation. The type Numbers Listed Have a Standard Tolerance on The Nominal Zener Voltage of ±5%.
5. Zener Voltage (V_Z) Measurement. Guarantess 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

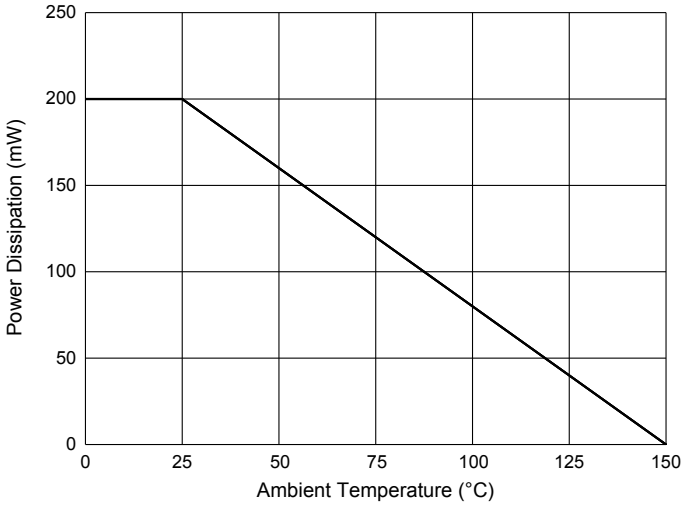
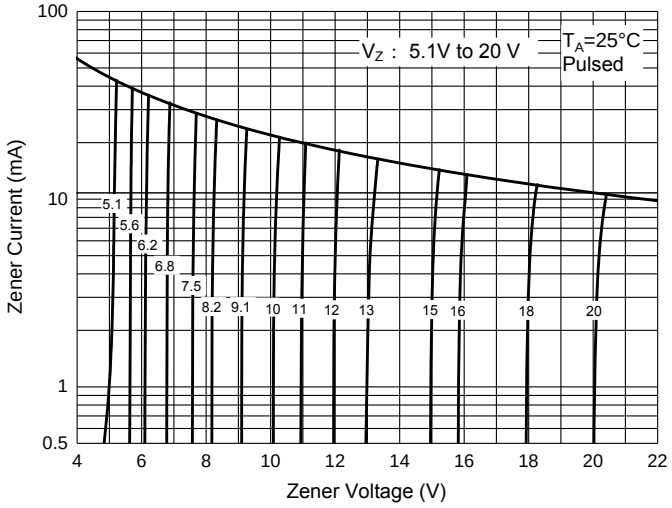


Fig. 2 - Typical Zener Breakdown Characteristics



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.