



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

BZX84C2V4W
THRU
BZX84C39W

Silicon

200 mWatt

Zener Diodes

Features

- Planar Die construction
200mW Power Dissipation
Zener Voltages from 2.4V - 39V
Ideally Suited for Automated Assembly Processes
Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1
Weight: 0.008 grams (approx.)

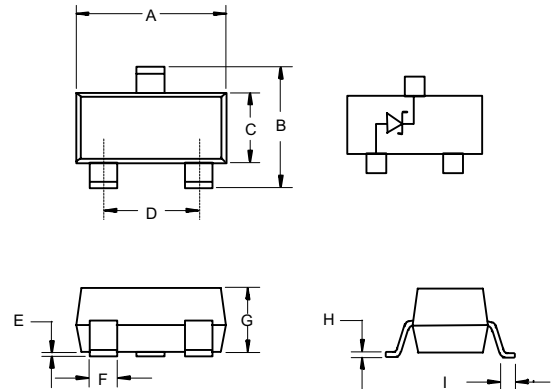
Maximum Ratings @ 25°C Unless Otherwise Specified

Table with 4 columns: Parameter, Symbol, Value, Unit. Rows include Zener Current (IF, 100 mA), Maximum Forward Voltage (VF, 1.2 V), Power Dissipation (PAV, 200 mWatt), Operation And Storage Temperature (TJ, TSTG, -55°C to +150°C), and Peak Forward Surge Current (IFSM, 2.0 A).

NOTES:

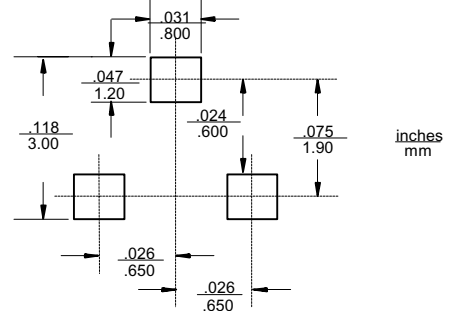
- A. Mounted on 5.0mm2(.013mm thick) land areas.
B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

SOT-323



DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through I correspond to dimensions in the diagram.

Suggested Solder Pad Layout



BZX84C2V4W thru BZX84C39W

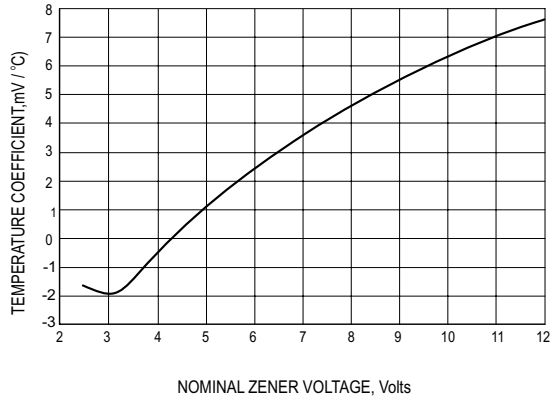
ELECTRICAL CHARACTERISTICS (TA=25 degree C unless otherwise noted) VF=1.2V max, IF=100mA for all type

Type Number	Marking Code	Nominal Zener Voltage			Max. Zener Impedance				Max.Reverse Leakage Current	
		Vz @ IzT			ZzT @ IzT		Zzk @ Izk		IR @ VR	
		Nom. V	Min. V	Max. V	Ohm	mA	Ohm	mA	uA	V
BZX84C2V4W	W1/KRB	2.4	2.28	2.52	100	5	600	1	50	1
BZX84C2V7W	W2/KRC	2.7	2.5	2.9	100	5	600	1	20	1
BZX84C3V0W	W3/KRD	3	2.8	3.2	95	5	600	1	10	1
BZX84C3V3W	W4/KRE	3.3	3.1	3.5	95	5	600	1	5.0	1
BZX84C3V6W	W5/KRF	3.6	3.4	3.8	90	5	600	1	5.0	1
BZX84C3V9W	W6/KRG	3.9	3.7	4.1	90	5	600	1	3.0	1
BZX84C4V3W	W7/KRH	4.3	4	4.6	90	5	600	1	3.0	1
BZX84C4V7W	W8/KR1	4.7	4.4	5	80	5	500	1	3.0	2
BZX84C5V1W	W9/KR2	5.1	4.8	5.4	60	5	480	1	2.0	2.0
BZX84C5V6W	WA/KR3	5.6	5.2	6	40	5	400	1	1.0	2.0
BZX84C6V2W	WB/KR4	6.2	5.8	6.6	10	5	150	1	3.0	4.0
BZX84C6V8W	WC/KR5	6.8	6.4	7.2	15	5	80	1	2.0	4.0
BZX84C7V5W	WD/KR6	7.5	7	7.9	15	5	80	1	1.0	5
BZX84C8V2W	WE/KR7	8.2	7.7	8.7	15	5	80	1	0.7	5
BZX84C9V1W	WF/KR8	9.1	8.5	9.6	15	5	100	1	0.5	6
BZX84C10W	WG/KR9	10	9.4	10.6	20	5	150	1	0.2	7.0
BZX84C11W	WH/KP1	11	10.4	11.6	20	5	150	1	0.1	8.0
BZX84C12W	WI/KP2	12	11.4	12.7	25	5	150	1	0.1	8.0
BZX84C13W	WK/KP3	13	12.4	14.1	30	5	170	1	0.1	8.0
BZX84C15W	WL/KP4	15	13.8	15.6	30	5	200	1	0.1	10.5
BZX84C16W	WM/KP5	16	15.3	17.1	40	5	200	1	0.1	11.2
BZX84C18W	WN/KP6	18	16.8	19.1	45	5	225	1	0.1	12.6
BZX84C20W	WO/KP7	20	18.8	21.2	55	5	225	1	0.1	14.0
BZX84C22W	WP/KP8	22	20.8	23.3	55	5	250	1	0.1	15.4
BZX84C24W	WR/KP9	24	22.8	25.6	70	5	250	1	0.1	16.8
BZX84C27W	WS/KPA	27	25.1	28.9	80	5	300	1	0.1	18.9
BZX84C30W	WT/KPB	30	28	32	80	5	300	1	0.1	21.0
BZX84C33W	WU/KPC	33	31	35	80	5	325	1	0.1	23.1
BZX84C36W	WW/KPD	36	34	38	90	5	350	1	0.1	25.2
BZX84C39W	WX/KPE	39	37	41	130	5	350	1	0.1	27.3

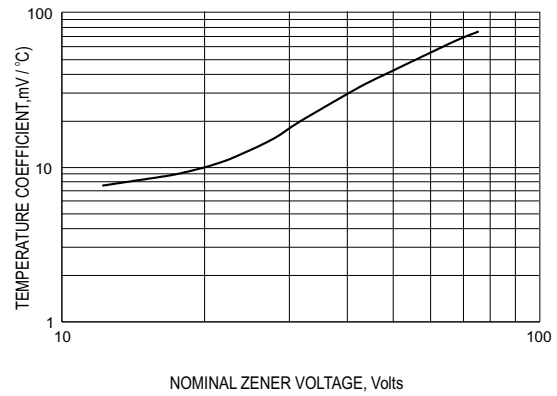
NOTE:

1. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
2. Specials Available Include:
 - A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
 - B. Matched sets.
3. Zener Voltage (Vz) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (TL) at 30°C, from the diode body.
4. Zener Impedance (Zz) 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 (IzT or IzK) is superimposed on IzT or IzK.
5. Surge Current (IR) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, IzT, per JEDEC registration; however, actual device capability is as described in Figure 5.

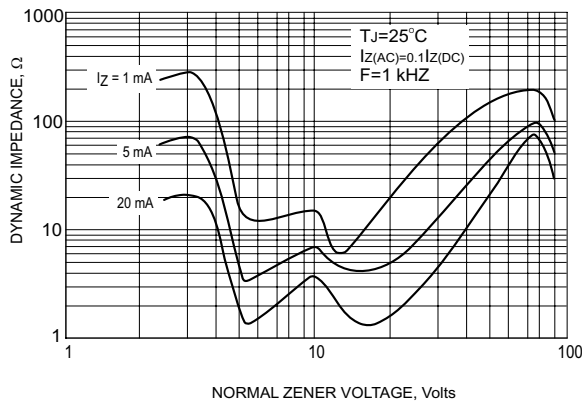
BZX84C2V4W thru BZX84C39W



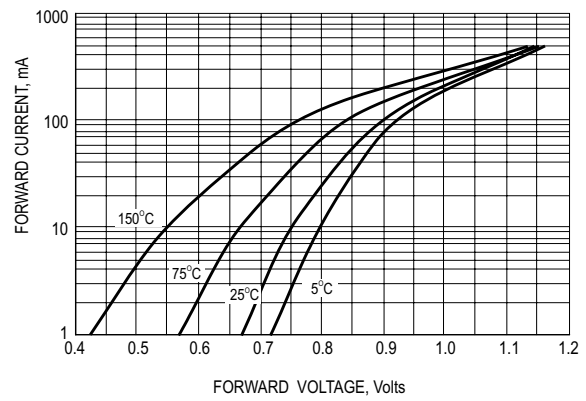
TYPICAL REVERSE CURRENT



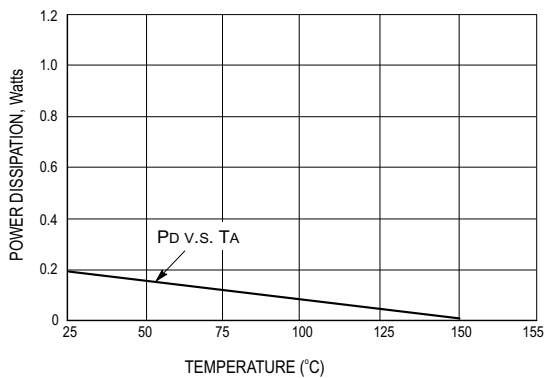
STEADY STATE POWER DERATING



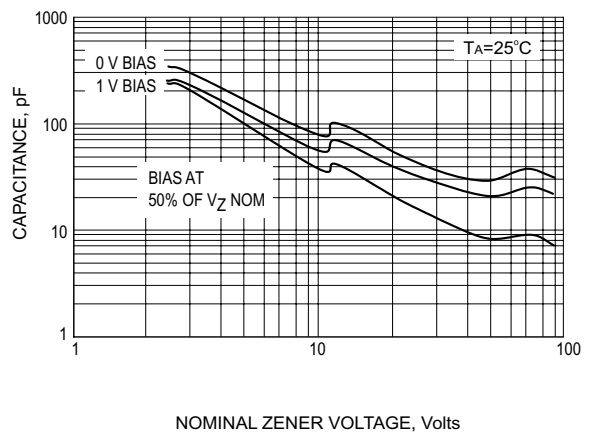
EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE



TYPICAL FORWARD VOLTAGE

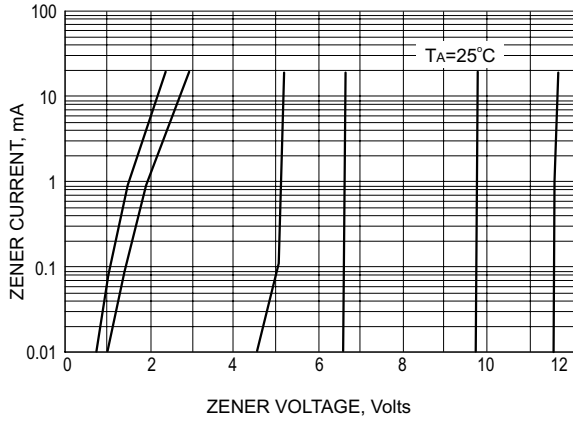


STEADY STATE POWER DERATING

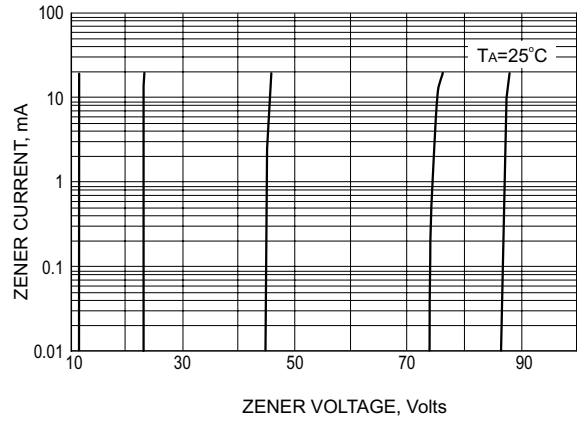


TYPICAL CAPACITANCE

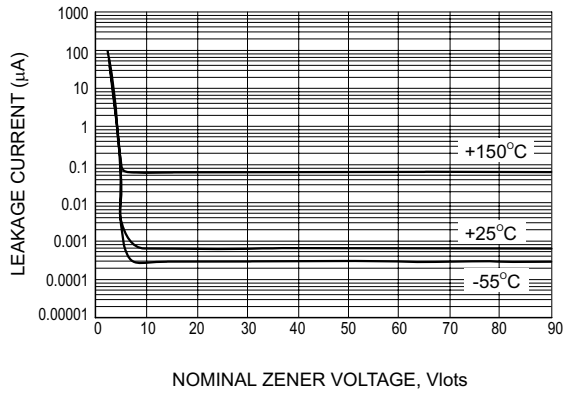
BZX84C2V4W thru BZX84C39W



ZENER VOLTAGE V.S. ZENER CURRENT



ZENER VOLTAGE V.S. ZENER CURRENT



TYPICAL LEAKGE CURRENT



TM

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/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.

www.mccsemi.com