Features

- Ideally Suited fou 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)
- AEC-Q101 Qualified

150 mW
Zener Diode
2.4 to 47 Volts

Maximum Ratings

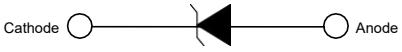
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note2) : 833°C/W Junction to Ambient

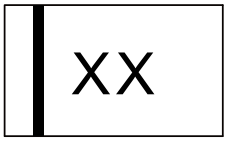
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	150mW	
Maximum Forward Voltage	V_F	0.9V	I_F=10mA

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. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code





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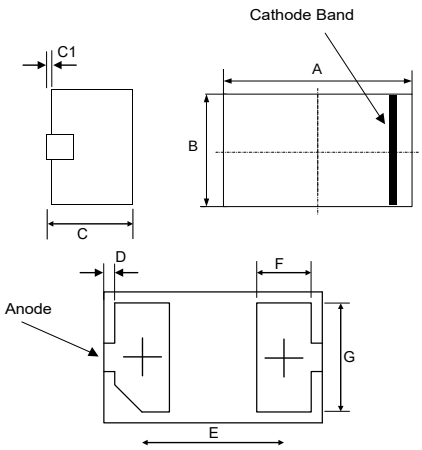
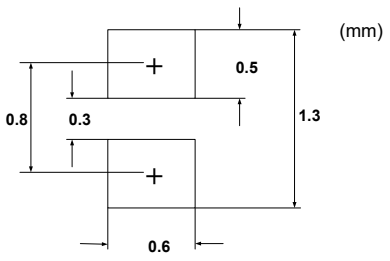


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.037	0.041	0.95	1.05	
B	0.022	0.026	0.55	0.65	
C	0.016	0.020	0.40	0.50	
C1	-----	0.002	-----	0.05	
D	0.001	0.003	0.02	0.08	
E	0.026BSC		0.65BSC		
F	0.008	0.012	0.20	0.30	
G	0.018	0.022	0.45	0.55	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage[3]				Maximum Zener Impedance[4]			Maximum Reverse Current I_R @ V_R		Typical Temperature Coefficent @ I_{ZTC}		Test Current	Marking Code
	V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	V_R	mV/°C		I_{ZTC}	
	Min.(V)	Nom(V)	Max.(V)	mA	Ω		mA	μA	V	Min	Max.	mA	
BZT52C2V4L3PHE3	2.2	2.4	2.6	5	100	600	1.0	50	1.0	-3.5	0	5	WX
BZT52C2V7L3PHE3	2.5	2.7	2.9	5	100	600	1.0	20	1.0	-3.5	0	5	W1
BZT52C3V0L3PHE3	2.8	3.0	3.2	5	95	600	1.0	10	1.0	-3.5	0	5	W2
BZT52C3V3L3PHE3	3.1	3.3	3.5	5	95	600	1.0	5	1.0	-3.5	0	5	W3
BZT52C3V6L3PHE3	3.4	3.6	3.8	5	90	600	1.0	5	1.0	-3.5	0	5	W4
BZT52C3V9L3PHE3	3.7	3.9	4.1	5	90	600	1.0	3	1.0	-3.5	0	5	W5
BZT52C4V3L3PHE3	4.0	4.3	4.6	5	90	600	1.0	3	1.0	-3.5	0	5	W6
BZT52C4V7L3PHE3	4.4	4.7	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5	W7
BZT52C5V1L3PHE3	4.8	5.1	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5	9Y
BZT52C5V6L3PHE3	5.2	5.6	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5	9A
BZT52C6V2L3PHE3	5.8	6.2	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5	9B
BZT52C6V8L3PHE3	6.4	6.8	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5	9C
BZT52C7V5L3PHE3	7.0	7.5	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5	9D
BZT52C8V2L3PHE3	7.7	8.2	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5	9E
BZT52C9V1L3PHE3	8.5	9.1	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5	9F
BZT52C10L3PHE3	9.4	10	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5	9G
BZT52C11L3PHE3	10.4	11	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5	9H
BZT52C12L3PHE3	11.4	12	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5	9J
BZT52C13L3PHE3	12.4	13	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5	9K
BZT52C15L3PHE3	13.8	15	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5	9L
BZT52C16L3PHE3	15.3	16	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5	9M
BZT52C18L3PHE3	16.8	18	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5	9N
BZT52C20L3PHE3	18.8	20	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5	9P
BZT52C22L3PHE3	20.8	22	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5	9R
BZT52C24L3PHE3	22.8	24	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5	9S
BZT52C27L3PHE3	25.1	27	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2	9T
BZT52C30L3PHE3	28	30	32	2	80	300	0.5	0.1	21.0	24.4	29.4	2	9U
BZT52C33L3PHE3	31	33	35	2	80	325	0.5	0.1	23.1	27.4	33.4	2	9V
BZT52C36L3PHE3	34	36	38	2	90	350	0.5	0.1	25.2	30.4	37.4	2	9W
BZT52C39L3PHE3	37	39	41	2	130	350	0.5	0.1	27.3	33.4	41.2	2	9X
BZT52C43L3PHE3	40	43	46	2	100	700	0.5	0.1	32	37.6	50.6	2	9Y
BZT52C47L3PHE3	44	47	50	2	100	750	0.5	0.1	35	42.0	55.8	2	9Z

Note: 3. Short Duration Pulse Test Used to Minimize Self-heating Effect.
4. f=1KHz

Curve Characteristics

Fig. 1 - Typical Zener Breakdown Characteristics

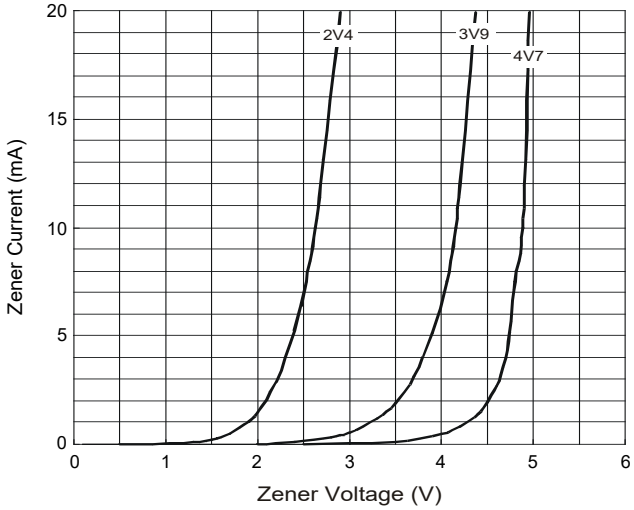


Fig. 2 - Typical Zener Breakdown Characteristics

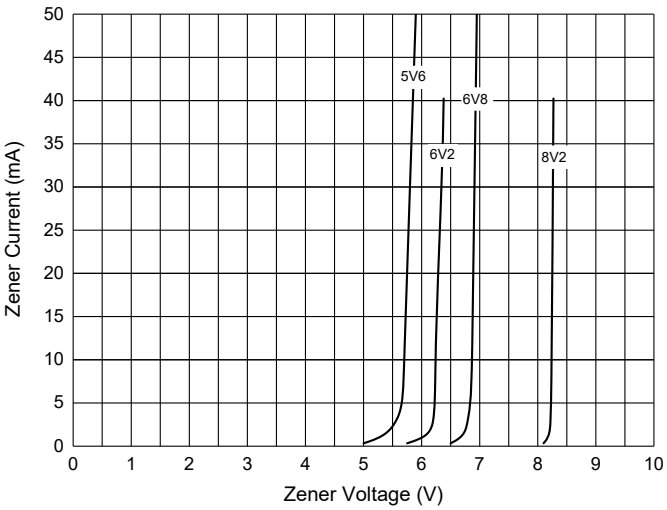


Fig. 3 - Typical Zener Breakdown Characteristics

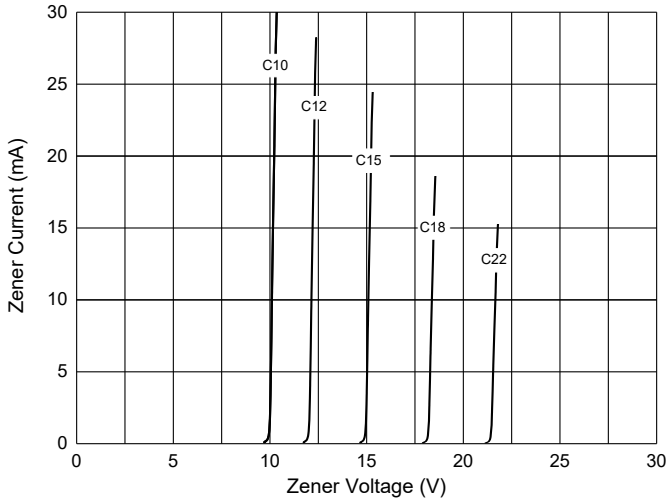


Fig. 4 - Typical Zener Breakdown Characteristics

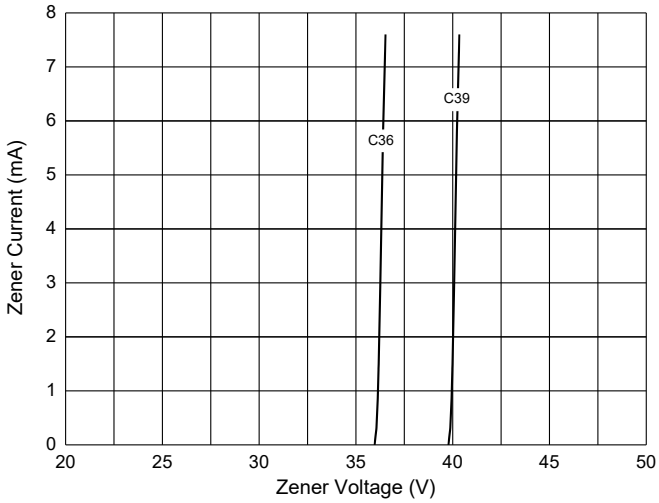


Fig. 5 - Typical Forward Characteristics

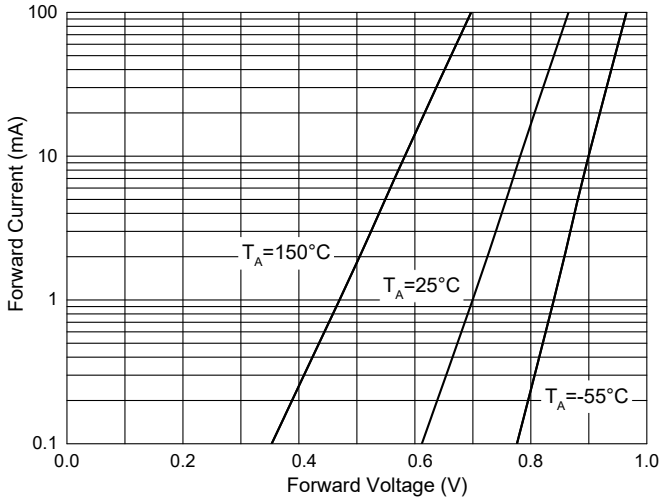
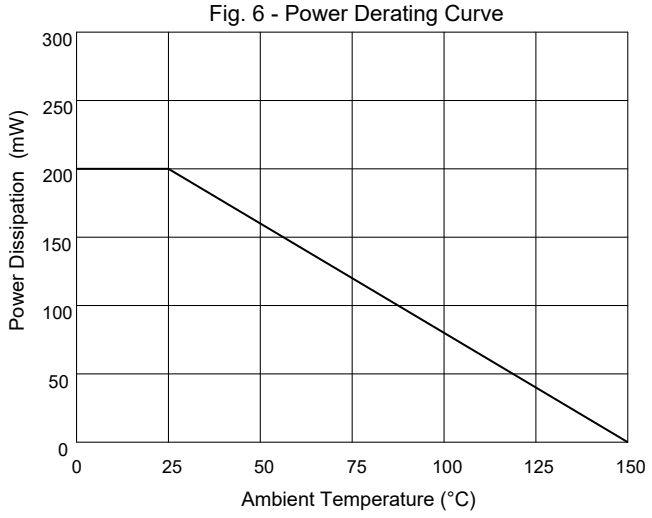


Fig. 6 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:10Kpcs/Reel