

## Features

- Dual Zeners in Common Anode Configuration
- $\Delta V_z$  for Both Diodes in One Case is  $\leq 5\%$ .
- Ideally Suited for Automated Assembly Processes
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings

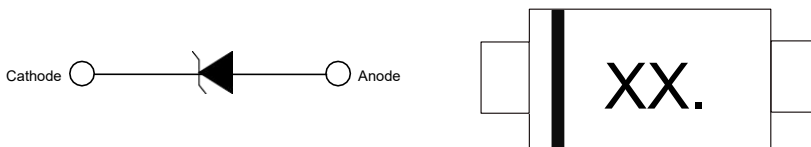
- Operating Junction Temperature Range:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Storage Temperature Range:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Thermal Resistance :  $417^{\circ}\text{C/W}$  Junction to Ambient(Note 2)

Parameter	Symbol	Rating	Conditions
Power Dissipation	$P_D$	300mW	
Maximum Forward Voltage	$V_F$	0.9V	$I_F=10\text{mA}$

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

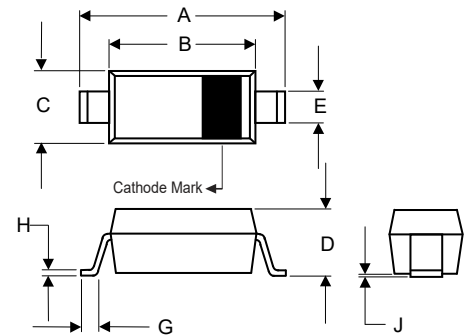
2. Part mounted on FR-4 board with recommended pad layout.

## Internal Structure and Marking Code



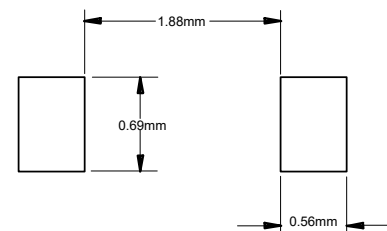
**300 mW  
Zener Diode  
2 to 47 Volts**

## SOD-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	----	0.006	----	0.15	

## Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage <sup>(2)</sup>	Maximum Zener Impedance <sup>(3)</sup>		Maximum Zener Impedance <sup>(3)</sup>		Min reverse Voltage <sup>(2)</sup>		Maximum Junction Capacitance	Marking Code
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	$C_J$	
	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	pF	
BZT52C2V0SL	1.9-2.1	5	100	600	1	90	1.0	/	L1.
BZT52C2V2SL	2.09-2.31	5	100	600	1	90	1.0	/	L2.
BZT52C2V4SL	2.28-2.52	5	85	600	1	50	1.0	/	L3.
BZT52C2V7SL	2.57-2.84	5	85	600	1	10	1.0	/	LT1.
BZT52C3V0SL	2.85-3.15	5	85	600	1	4	1.0	/	LT2.
BZT52C3V3SL	3.14-3.47	5	85	600	1	2	1.0	/	LT3.
BZT52C3V6SL	3.42-3.78	5	85	600	1	2	1.0	/	LT4.
BZT52C3V9SL	3.71-4.10	5	85	600	1	2	1.0	/	LT5.
BZT52C4V3SL	4.09-4.52	5	80	600	1	1	1.0	/	LT6.
BZT52C4V7SL	4.47-4.94	5	70	500	1	0.5	1.0	/	LT7.
BZT52C5V1SL	4.85-5.36	5	50	480	1	0.1	1.0	/	LT8.
BZT52C5V6SL	5.32-5.88	5	30	400	1	0.1	1.0	25	LT9.
BZT52C6V2SL	5.89-6.51	5	10	150	1	0.1	2.0	25	L09.
BZT52C6V8SL	6.46-7.14	5	8	80	1	0.1	3.0	25	L10.
BZT52C7V5SL	7.13-7.88	5	7	50	1	0.1	5.0	25	L11.
BZT52C8V2SL	7.79-8.61	5	7	50	1	0.1	6.1	25	L13.
BZT52C9V1SL	8.65-9.56	5	10	50	1	0.1	6.8	25	L14.
BZT52C10SL	9.50-10.50	5	15	70	1	0.1	7.5	25	L15.
BZT52C11SL	10.45-11.55	5	20	70	1	0.1	8.2	25	L16.
BZT52C12SL	11.40-12.60	5	20	90	1	0.1	9.0	25	L17.
BZT52C13SL	12.40-13.65	5	26	110	1	0.1	9.7	25	L18.
BZT52C15SL	14.25-15.60	5	30	110	1	0.1	11.0	25	L19.
BZT52C16SL	15.30-16.80	5	40	170	1	0.1	12.0	25	L20.
BZT52C18SL	17.10-18.90	5	45	170	1	0.1	14.0	25	L21.
BZT52C20SL	19.00-21.00	5	55	220	1	0.1	15.0	25	L22.
BZT52C22SL	20.90-23.10	5	55	220	1	0.1	17.0	25	L23.
BZT52C24SL	22.80-25.20	5	70	220	1	0.1	18.0	25	L24.
BZT52C27SL	25.65-28.38	5	80	220	1	0.1	20.0	25	L25.
BZT52C30SL	28.50-31.50	5	80	220	1	0.1	22.0	25	L26.
BZT52C33SL	31.35-34.65	5	80	220	1	0.1	24.0	25	L27.
BZT52C36SL	34.20-37.80	5	80	220	1	0.1	27.0	25	L28.
BZT52C39SL	37.05-40.95	5	90	500	1	0.1	29.0	25	L29.
BZT52C43SL	40.85-45.15	5	90	600	1	0.1	32.0	25	L30.
BZT52C47SL	44.65-49.35	5	110	700	1	0.1	35.0	25	L31.

Note :

2. Short duration test pulse used to minimize self-heating effect.
3. f=1KHz.

**Curve Characteristics**

Fig. 1 - Typical Zener Breakdown Characteristics

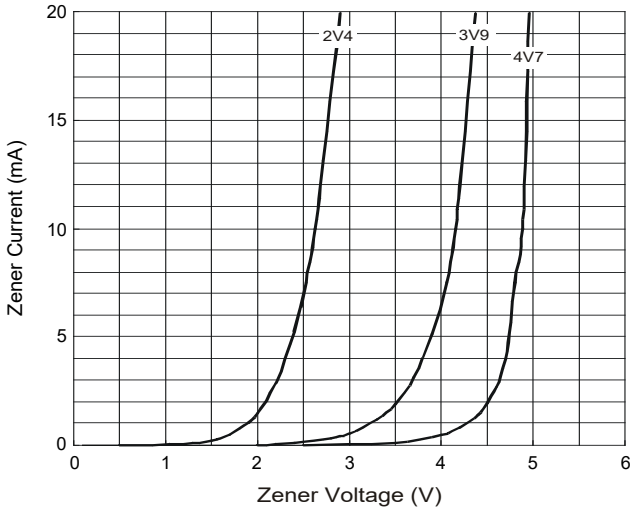


Fig. 2 - Typical Zener Breakdown Characteristics

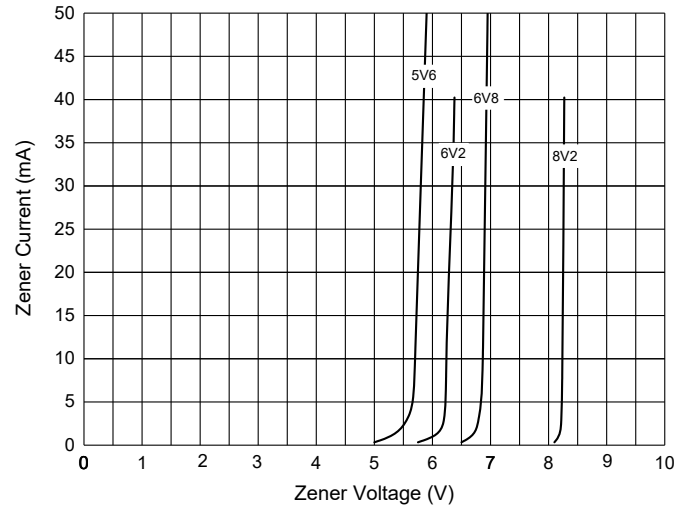


Fig. 3 - Typical Zener Breakdown Characteristics

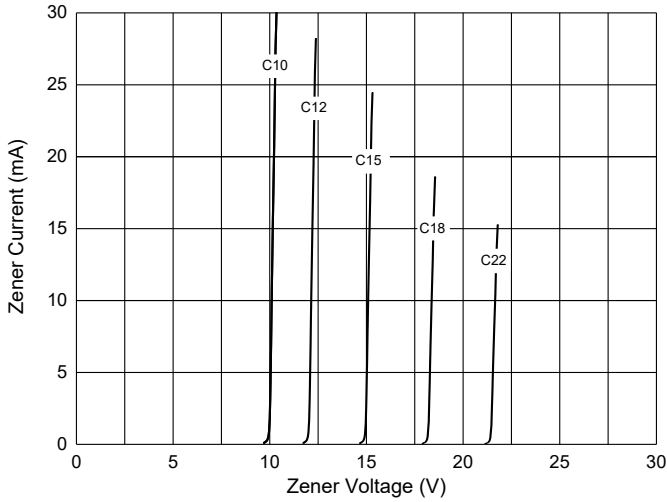


Fig. 4 - Typical Zener Breakdown Characteristics

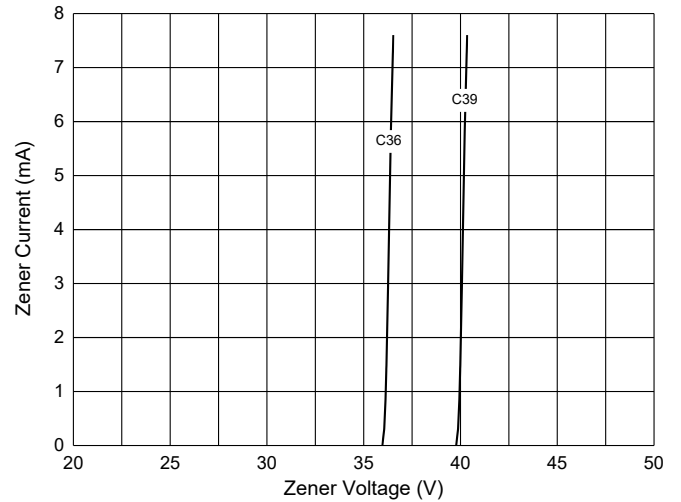


Fig. 5 - Typical Forward Characteristics

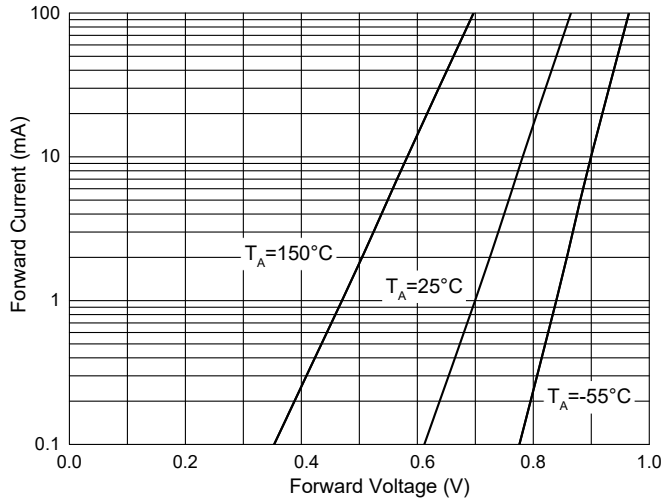
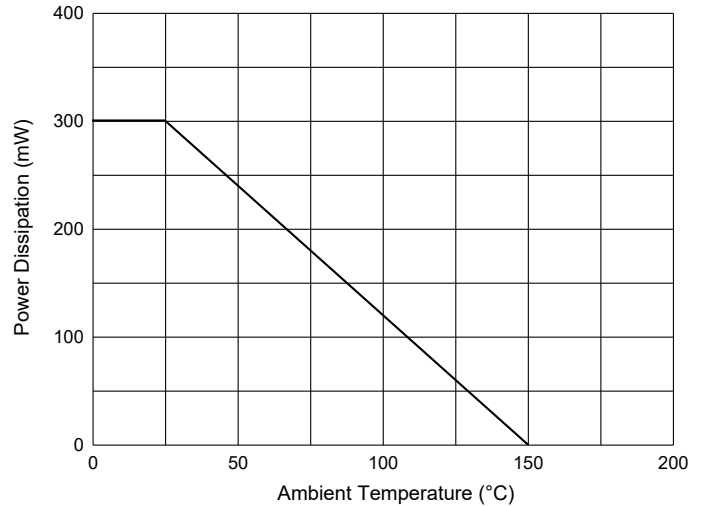


Fig. 6 - Power Derating Curve



## Ordering Information

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

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