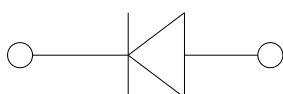
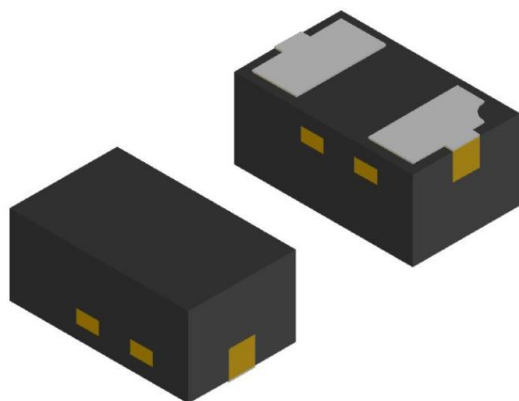


Zener Diodes



Features

- Moisture sensitivity level 3
- Zener voltage 2.4V~39V

Application

- Linear voltage regulator
- DC regulator
- Small-signal surge protection

Mechanical data

- **Package:** DFN1006-2L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Maximum Forward Voltage	V _F	V	I _F =10mA	0.9
Maximum Regulator Current	I _{ZM}	mA		P _D / V _Z
Power dissipation	P _D	mW		100
Junction temperature	T _j	°C		150
Storage temperature range	T _{stg}	°C		-55 ~+150

■Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZT52C2V4L3P THRU BZT52C39L3P	Approximate 0.9	10K	100K	400K	Tape & Reel



BZT52C2V4L3P THRU BZT52C39L3P

RoHS
COMPLIANT

■Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Type Number	Device Marking	V _z at I _{zt} (V)			Z _{zt} (Ω)		Z _{zk} (Ω)		I _R (μA)@V _R		Typical Temperature Coefficient@ IZTC mV/℃		Test Current IZTC	Diode capacitance Cd (pF)	Non-repetitive peak reverse current I _{zsm} (A)
		min.	typ.	max.	I _z (mA)	max.	I _{zk} (mA)	max.	max	V _R (V)	Min	Max	mA	max	max
BZT52C2V4L3P	WX	2.28	2.4	2.56	5	100	1.0	600	50	1.0	-3.5	0	5	450	6
BZT52C2V7L3P	W1	2.5	2.7	2.9	5	100	1.0	600	20	1.0	-3.5	0	5	450	6
BZT52C3V0L3P	W2	2.8	3.0	3.2	5	95	1.0	600	10	1.0	-3.5	0	5	450	6
BZT52C3V3L3P	W3	3.1	3.3	3.5	5	95	1.0	600	5	1.0	-3.5	0	5	450	6
BZT52C3V6L3P	W4	3.4	3.6	3.8	5	90	1.0	600	5	1.0	-3.5	0	5	450	4.5
BZT52C3V9L3P	W5	3.7	3.9	4.1	5	90	1.0	600	3	1.0	-3.5	0	5	450	4.5
BZT52C4V3L3P	W6	4.0	4.3	4.6	5	90	1.0	600	3	1.0	-3.5	0	5	450	3.5
BZT52C4V7L3P	W7	4.4	4.7	5.0	5	80	1.0	500	3	2.0	-3.5	0	5	300	3.5
BZT52C5V1L3P	9Y	4.8	5.1	5.4	5	60	1.0	480	2	2.0	-2.7	1.2	5	300	3
BZT52C5V6L3P	9A	5.2	5.6	6.0	5	40	1.0	400	1	2.0	-2	2.5	5	200	3
BZT52C6V2L3P	9B	5.8	6.2	6.6	5	10	1.0	150	3	4.0	0.4	3.7	5	200	3
BZT52C6V8L3P	9C	6.4	6.8	7.2	5	15	1.0	80	2	4.0	1.2	4.5	5	200	2
BZT52C7V5L3P	9D	7.0	7.5	7.9	5	15	1.0	80	1	5.0	2.5	5.3	5	150	2
BZT52C8V2L3P	9E	7.7	8.2	8.7	5	15	1.0	80	0.7	5.0	3.2	6.2	5	150	2
BZT52C9V1L3P	9F	8.5	9.1	9.6	5	15	1.0	100	0.5	6.0	3.8	7.0	5	150	1.8
BZT52C10L3P	9G	9.4	10	10.6	5	20	1.0	150	0.2	7.0	4.5	8.0	5	90	1.8
BZT52C11L3P	9H	10.4	11	11.6	5	20	1.0	150	0.1	8.0	5.4	9.0	5	85	1.8
BZT52C12L3P	9J	11.4	12	12.7	5	25	1.0	150	0.1	8.0	6.0	10.0	5	85	1.8
BZT52C13L3P	9K	12.4	13	14.1	5	30	1.0	170	0.1	8.0	7.0	11.0	5	80	1
BZT52C15L3P	9L	14.25	15	15.75	5	30	1.0	200	0.1	10.5	9.2	13.0	5	75	1
BZT52C16L3P	9M	15.3	16	17.1	5	40	1.0	200	0.1	11.2	10.4	14.0	5	75	1
BZT52C18L3P	9N	16.8	18	19.1	5	45	1.0	225	0.1	12.6	12.4	16.0	5	70	1
BZT52C20L3P	9P	18.8	20	21.2	5	55	1.0	225	0.1	14.0	14.4	18.0	5	60	1
BZT52C22L3P	9R	20.8	22	23.3	5	55	1.0	250	0.1	15.4	16.4	20.0	5	60	0.6
BZT52C24L3P	9S	22.8	24	25.6	5	70	1.0	250	0.1	16.8	18.4	22.0	5	55	0.6
BZT52C36L3P	9W	34	36	38	2	90	0.5	350	0.1	25.2	30.4	37.4	2	45	0.6
BZT52C39L3P	9X	37	39	41	2	130	0.5	350	0.1	27.3	33.4	41.2	2	45	0.6



■ Characteristics (Typical)

Fig 1: P_D -Ta Curve

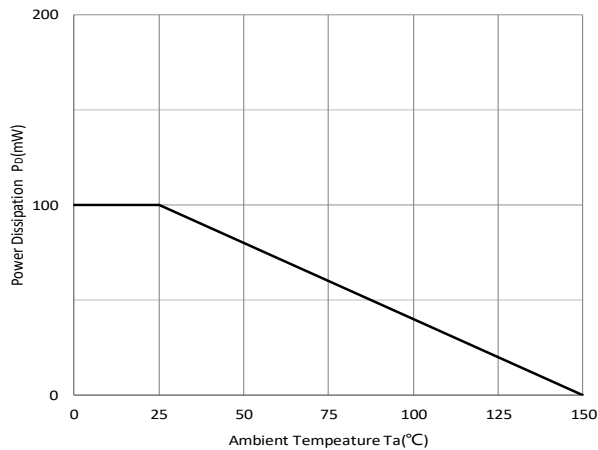


Fig 2: Zener Breakdown Characteristics

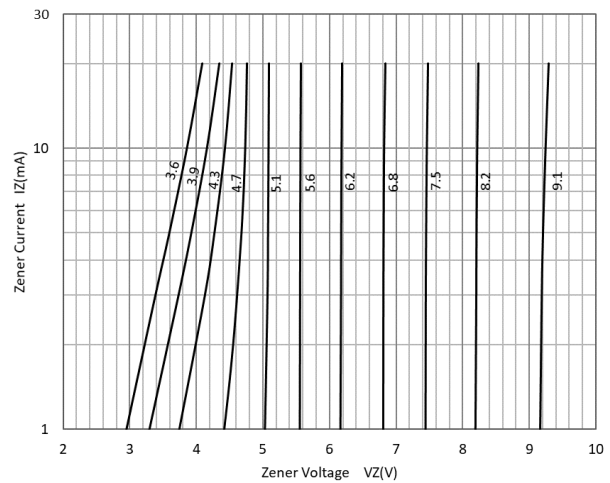


Fig 3: Zener Breakdown Characteristics

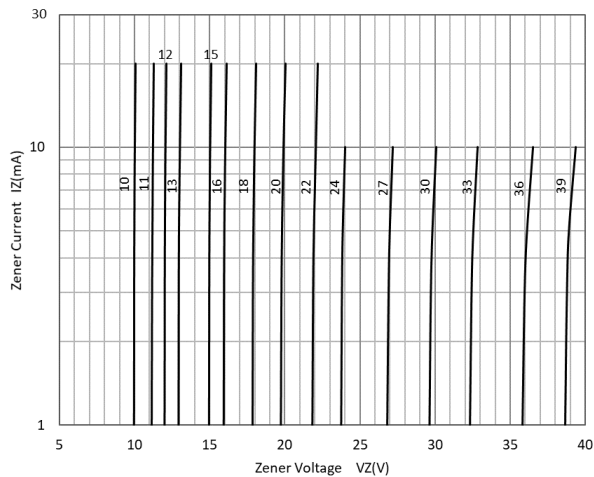


Fig 4 Typical Temperature Coefficient

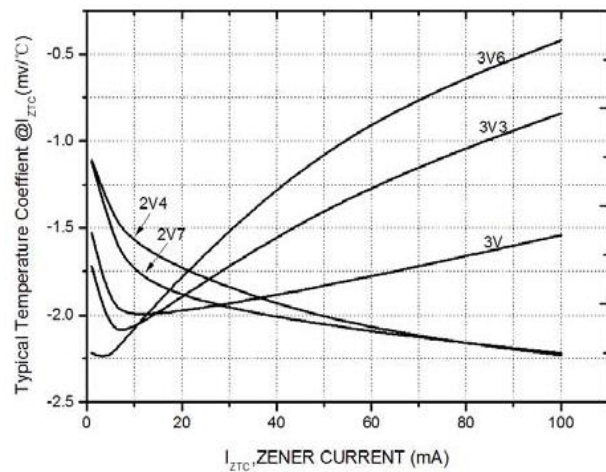


Fig 5 Typical Temperature Coefficient

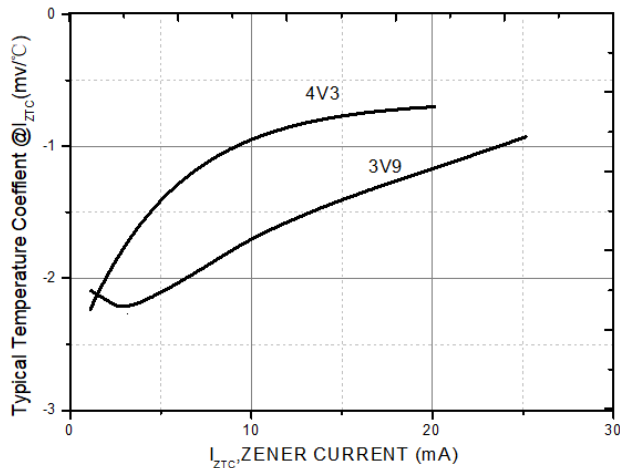


Fig 6: Typical Temperature Coefficient

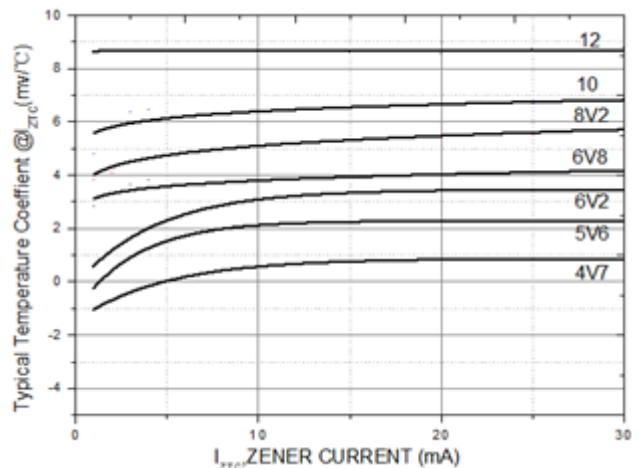


Fig 7 Typical Temperature Coefficient

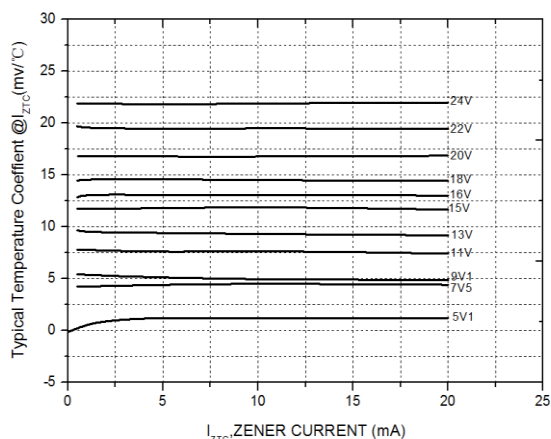


Fig 8: Typical Temperature Coefficient

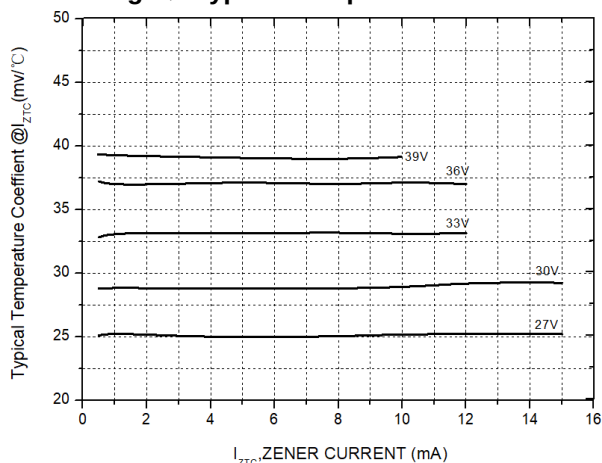


Fig 9: Typical Forward Voltage

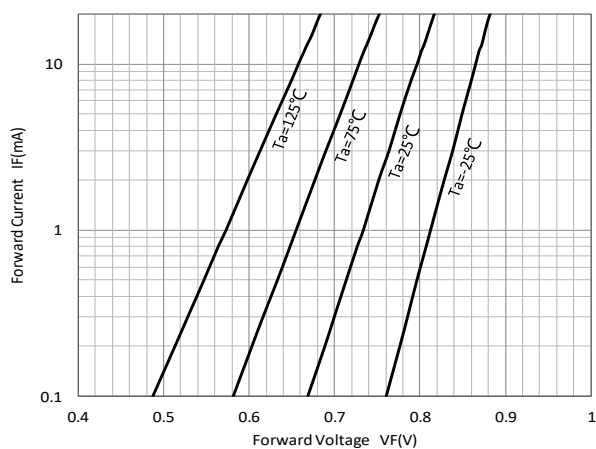


Fig 10: Typical Reverse Current

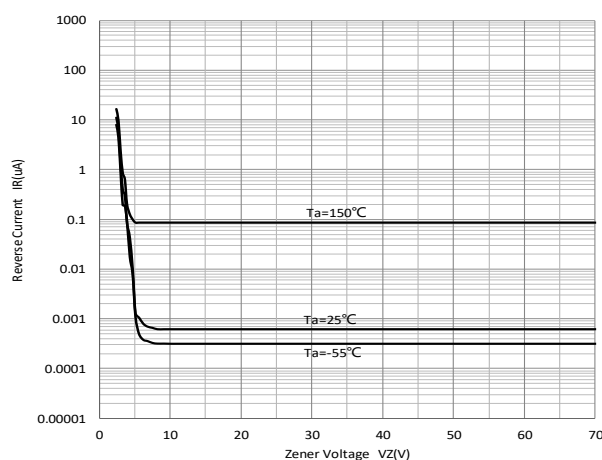
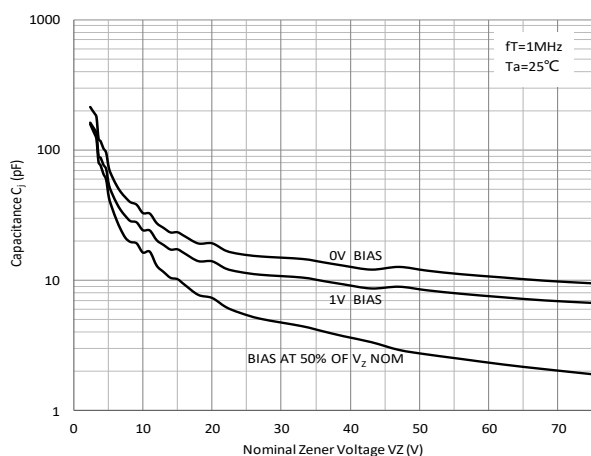
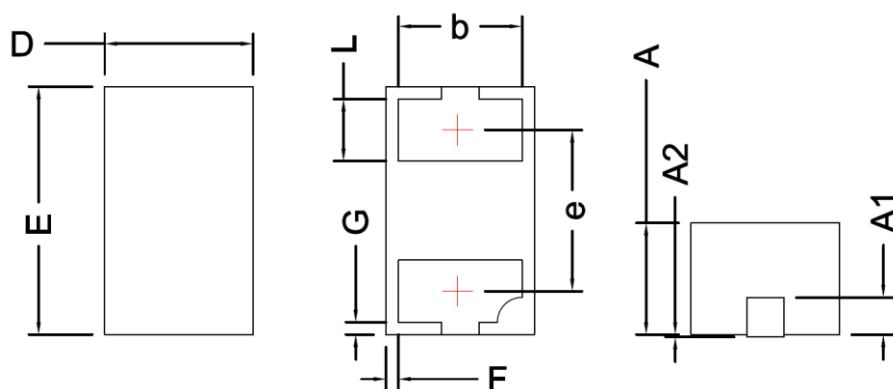


Fig 11: Typical Capacitance

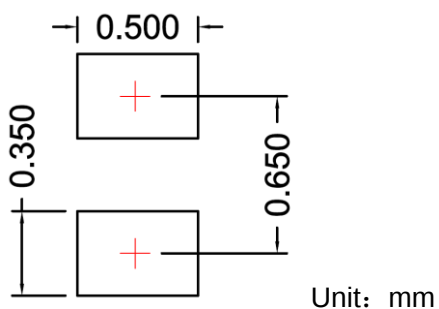


■ Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
D	0.50	0.60	0.70
E	0.90	1.00	1.10
A	0.35	0.45	0.55
A1	0.15 BSC		
A2			0.10
F	0.005		
G	0.005		
L	0.15	0.25	0.35
b	0.41	0.50	0.59
e	0.65 BSC		

■ Soldering Footprint





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