

Description

The **SZxxxHN102** is packaged in aDFN1006-2L surface mount package that has a power dissipation of 500mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium.

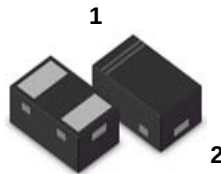
Feature

- Standard Zener Breakdown Voltage Range 2.4V -75V
- DFN1006-2L package
- Steady State Power Rating of 150mW

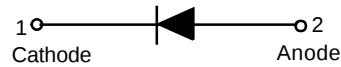
Applications

- Cellular phones
- Hand held portables
- High density PC boards

Schematic & PIN Configuration



DFN1006-2L



Circuit

Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation (NOTE 1)	P_D	150	mW
Forward Voltage at $I_F = 10 \text{ mA}$ (NOTE 2)	V_F	0.9	V
Typical thermal resistance juncting to ambient	$R_{\theta JA}$	556	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

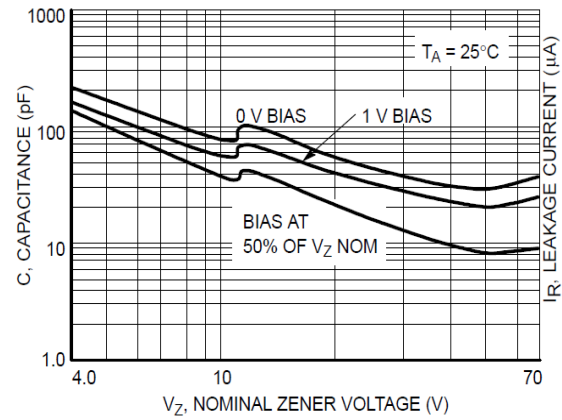
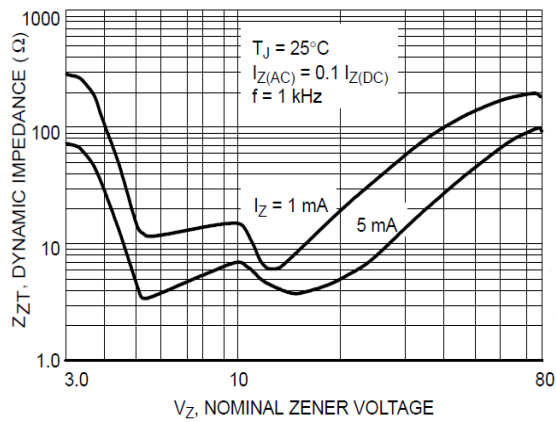
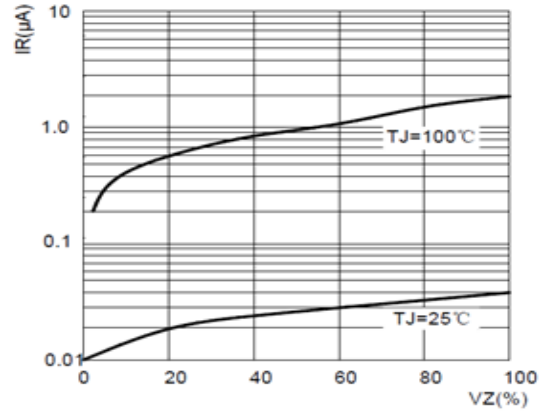
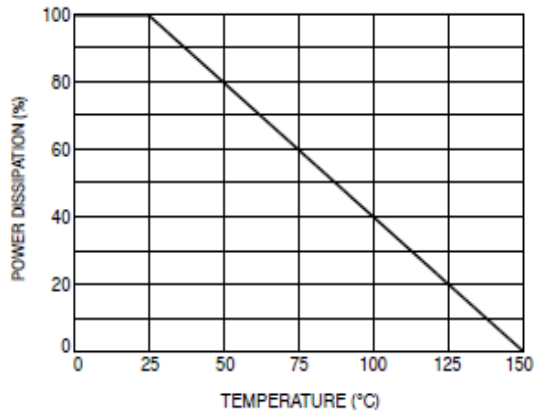
Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

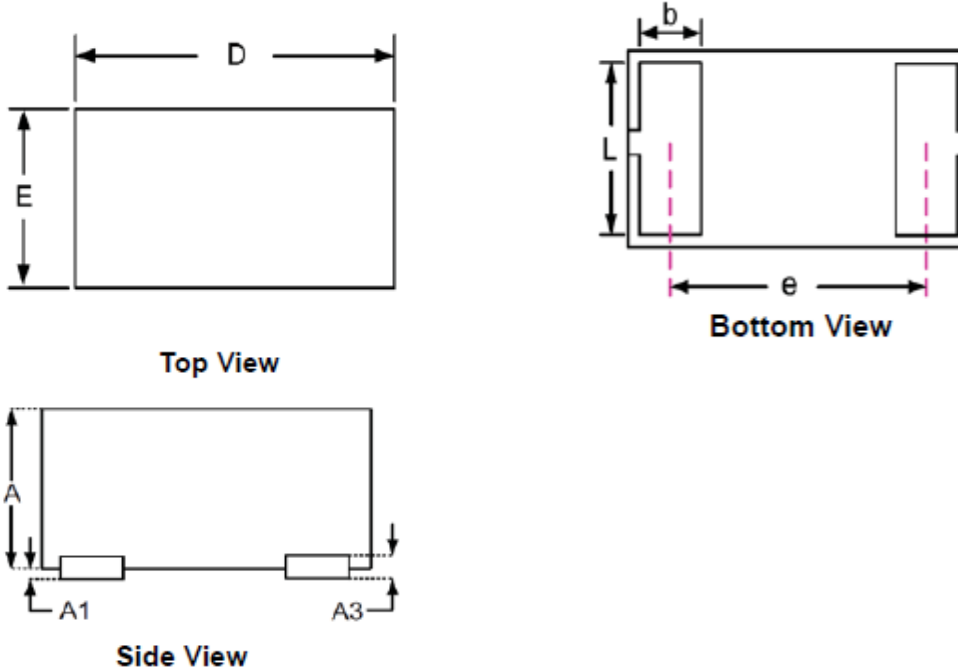
Part Number	Device Marking Code	Nominal Zener Voltage @IZT				Maximum Zener impedance			Maximum Reverse Leakage Current		Typical Temperature coefficient @ IZTC=mV/°C	
		VZ AVE.(V)	VZ MIN.(V)	VZ MAX.(V)	IZT(mA)	ZZT@IZT (Ω)	ZZK@IZK (Ω)	IZK (mA)	IR@VR (uA)	VR (V)	Min	Max
SZ2V4HN102	J	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0
SZ2V7HN102	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0
SZ3V0HN102	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0
SZ3V3HN102	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0
SZ3V6HN102	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0
SZ3V9HN102	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0
SZ4V3HN102	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0
SZ4V7HN102	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2
SZ5V1HN102	4	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2
SZ5V6HN102	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5
SZ6V2HN102	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7
SZ6V8HN102	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5
SZ7V5HN102	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3
SZ8V2HN102	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2
SZ9V1HN102	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0
SZ10VHN102	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0
SZ11VHN102	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0
SZ12VHN102	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0
SZ13VHN102	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0
SZ15VHN102	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0
SZ16VHN102	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0
SZ18VHN102	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0
SZ20VHN102	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0
SZ22VHN102	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0
SZ24VHN102	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0
SZ27VHN102	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3
SZ30VHN102	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4
SZ33VHN102	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4
SZ36VHN102	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4
SZ39VHN102	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2
SZ43VHN102	WU	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0
SZ47VHN102	WV	47	44.0	50.0	2	100	750	1.0	0.1	35.0	10.0	12.0
SZ51VHN102	WW	51	48.0	54.0	2	100	750	1.0	0.1	38.0	10.0	12.0
SZ56VHN102	XW	56	52.0	60.0	2	135	700	1.0	0.1	39.0	10.0	12.0
SZ62VHN102	6E	62	58.0	66.0	2	200	1000	1.0	0.2	47.0	10.0	12.0
SZ68VHN102	6F	68	64.0	72.0	2	250	1000	1.0	0.2	52.0	10.0	12.0
SZ75VHN102	6H	75	70.0	79.0	2	300	1000	1.0	0.2	57.0	10.0	12.0

Electrical Characteristics

DEVICE	Marking	VZ(V) @ IZ=2mA			ZZ @ IZ = 0.5 mA	ZZ @ IZ = 2 mA	ZZ @ IZ = 10mA	IR@VR	VR	Typical Temperature Coefficient(mV/°C)@ IZ=2mA	
		MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
SZ27VHN102	X	25.65	27	28.35	295	75	43	0.04	19	21.4	25.3
SZ30VHN102	Z	28.50	30	31.50	295	75	48	0.04	21	24.4	29.4
SZ33VHN102	33	31.35	33	34.65	320	75	53	0.04	23	27.4	33.4
SZ36VHN102	36	34.20	36	37.80	345	85	58	0.04	25	30.4	37.4
SZ39VHN102	39	37.05	39	40.95	345	125	68	0.04	27	33.4	41.2
SZ43VHN102	43	40.85	43	45.15	370	145	78	0.04	30	37.6	46.6
SZ47VHN102	47	44.65	47	49.35	370	165	88	0.04	33	42.0	51.8
SZ51VHN102	51	48.45	51	53.55	395	175	98	0.04	36	46.6	57.2
SZ56VHN102	56	52.2	56	58.8	420	195	108	0.04	39	52.2	63.8
SZ62VHN102	62	58.9	62	65.1	445	210	118	0.04	43	58.8	71.6
SZ68VHN102	68	64.6	68	71.4	470	235	128	0.04	48	65.6	79.8
SZ75VHN102	75	71.25	75	78.75	495	250	138	0.04	53	73.4	88.6

Typical Characteristics



Outline Drawing –DFN1006-2L


DIM	MILIMETER		
	MIN (mm)	TYPE (mm)	MAX (mm)
A	0.40		0.55
A1	0.00		0.05
A3	0.125 Ref		
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.65 Typ.		