



## SSCZXXXHN1 Series

### Zener Voltage Regulator

#### ● Description

The SSCZXXXHN1 is packaged in a DFN1006-2L surface mount package that has a power dissipation of 200mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium. It is applicable to mobile phones, hand-held portable devices, high-density PC boards.

#### ● Feature

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Low Zener Impedance
- ✧ Steady state power rating of 200mW
- ✧ RoHS compliant transient

#### ● Mechanical data

- ✧ Package: DFN1006-2L
- ✧ Lead finish: 100% matte Sn (Tin)
- ✧ Mounting position: Any
- ✧ Qualified max reflow temperature: 260°C
- ✧ Device meets MSL 3 requirements
- ✧ Pure tin plating: 7 ~ 17 um
- ✧ Pin flatness: ≤3mil

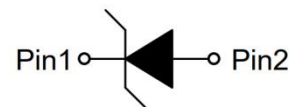
#### ● Absolute maximum rating @T<sub>A</sub>=25°C

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P <sub>D</sub>	200	mW
Forward Voltage @ I <sub>F</sub> = 10mA	V <sub>F</sub>	0.9	V
Thermal Resistance, Junction-to-Ambient	R <sub>θJA</sub>	625	°C/W
Storage Temperature	T <sub>STG</sub>	-55/+150	°C
Operating Temperature	T <sub>J</sub>	-55/+150	°C

#### ● PIN configuration



**DFN1006-2L (Bottom View)**



**Circuit diagram**



**Marking**

#### ● Applications

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



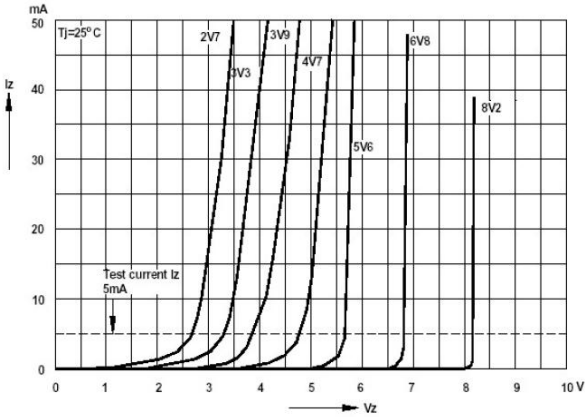
● Electrical Characteristics @T<sub>A</sub>=25°C

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ I <sub>ZTC</sub> =mV/°C		Test Current I <sub>ZTC</sub> mA
		V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	
SSCZ2V4HN1	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
SSCZ2V7HN1	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
SSCZ3V0HN1	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
SSCZ3V3HN1	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
SSCZ3V6HN1	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
SSCZ3V9HN1	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V3HN1	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V7HN1	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
SSCZ5V1HN1	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
SSCZ5V6HN1	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
SSCZ6V2HN1	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
SSCZ6V8HN1	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
SSCZ7V5HN1	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
SSCZ8V2HN1	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
SSCZ9V1HN1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
SSCZ10VHN1	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
SSCZ11VHN1	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
SSCZ12VHN1	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
SSCZ13VHN1	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
SSCZ15VHN1	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
SSCZ16VHN1	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
SSCZ18VHN1	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
SSCZ20VHN1	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
SSCZ22VHN1	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
SSCZ24VHN1	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
SSCZ27VHN1	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
SSCZ30VHN1	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
SSCZ33VHN1	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
SSCZ36VHN1	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
SSCZ39VHN1	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
SSCZ43VHN1	WU	43	40.0	46.0	2	150	375	0.5	0.1	32.0	10.0	12.0	5
SSCZ47VHN1	WV	47	44.0	50.0	2	170	375	0.5	0.1	35.0	10.0	12.0	5
SSCZ51VHN1	WW	51	48.0	54.0	2	180	400	0.5	0.1	38.0	10.0	12.0	5
SSCZ56VHN1	XW	56	52.0	60.0	2	200	425	0.5	0.1	39.0	10.0	12.0	5
SSCZ62VHN1	6E	62	58.0	66.0	2	215	450	0.5	0.2	47.0	10.0	12.0	5
SSCZ68VHN1	6F	68	64.0	72.0	2	240	475	0.5	0.2	52.0	10.0	12.0	5

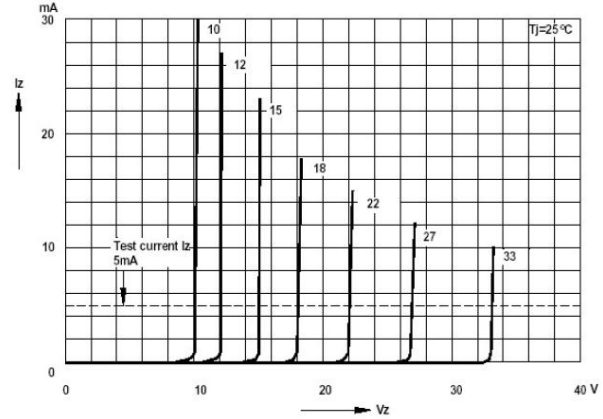


SSCZ75VHN1	6H	75	70.0	79.0	2	255	500	0.5	0.2	57.0	10.0	12.0	5
------------	----	----	------	------	---	-----	-----	-----	-----	------	------	------	---

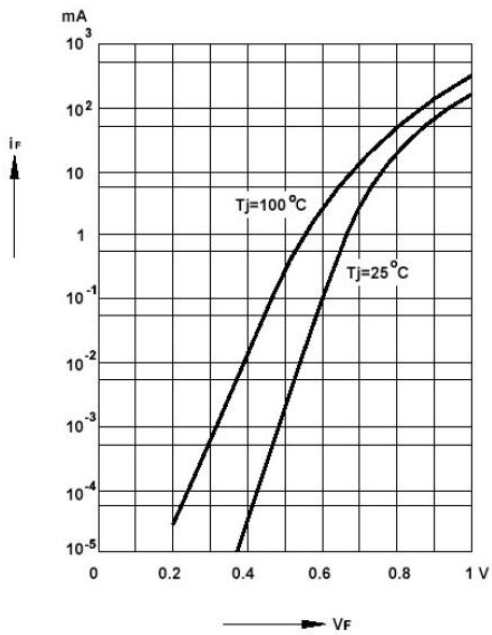
## ● Typical Performance Characteristics



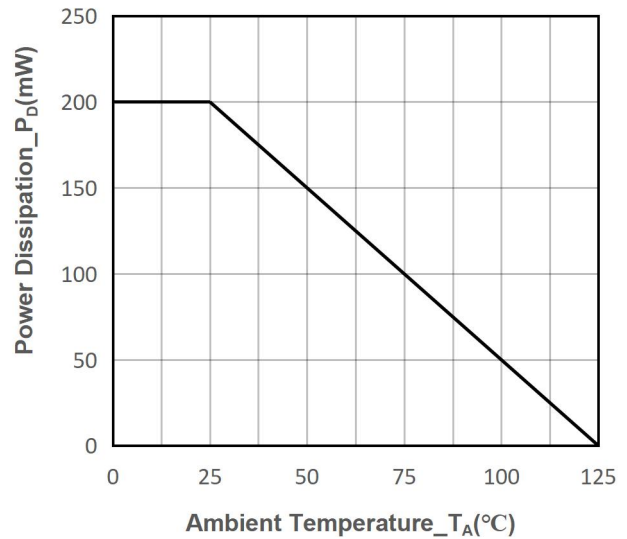
Zener Current vs. Zener Voltage



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



## ● Package Information

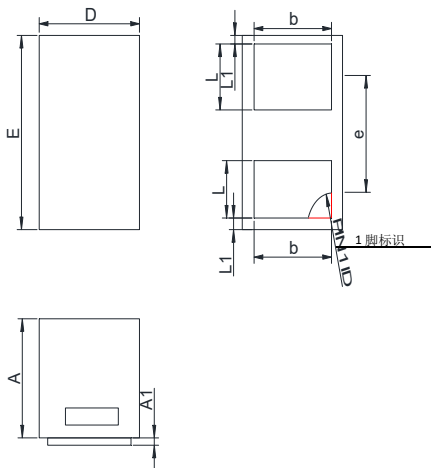
### Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZXXXHN1	DFN1006-2L	10000	7 Inch

### Mechanical Data

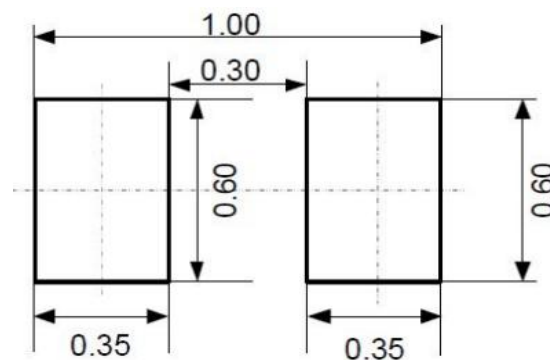
Case: DFN1006-2L

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.45	0.55
A1	0.00	0.05
D	0.55	0.65
E	0.95	1.05
b	0.45	0.60
e	0.65TYP	
L	0.2	0.3
L1	0.05REF	

### Recommended Pad outline





## DISCLAIMER

SSCSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. SSCSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICIENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G. OUTSIDE SPECIFIED POWER SUPPLY RANGE) AND THEREFORE OUTSIDE THE WARRANTED RANGE.

OUR PRODUCT SPECIFICATIONS ARE ONLY VALID IF OBTAINED THROUGH THE COMPANY'S OFFICIAL WEBSITE, CRM SYSTEM, OR OUR SALES PERSONNEL CHANNELS. IF CHANGES OR SPECIAL VERSIONS ARE INVOLVED, THEY MUST BE STAMPED WITH A QUALITY SEAL AND MARKED WITH A SPECIAL VERSION NUMBER TO BE VALID.