



SSCZXXXHS6 Series

Zener Voltage Regulator

● Description

The SSCZXXXHS6 is packaged in a SOT-23 surface mount package that has a power dissipation of 300mW. 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.

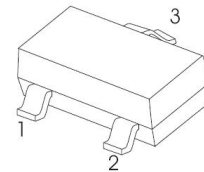
● Feature

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Low Zener Impedance
- ✧ Steady state power rating of 300mW
- ✧ RoHS compliant transient

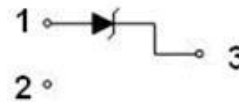
● Applications

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

● PIN configuration



SOT-23



Circuit diagram

● Mechanical data

- ✧ Package: SOT-23
- ✧ 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_A=25°C

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P _D	300	mW
Forward Voltage	V _F	0.9	V
Thermal Resistance, Junction-to-Ambient	R _{ΘJA}	417	°C/W
Storage Temperature	T _{STG}	-65/+150	°C
Operating Temperature	T _J	125	°C



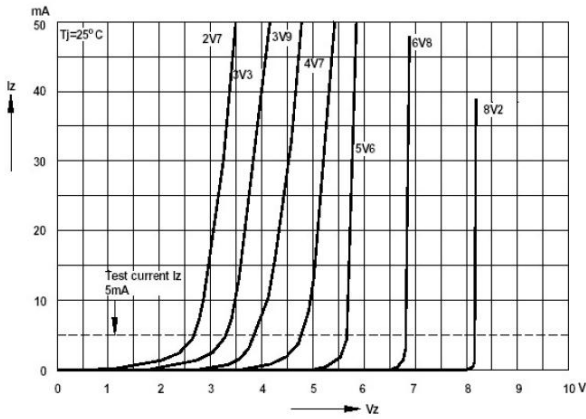
● **Electrical Characteristics @T_A=25°C**

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ I _{ZTC} =mV/°C		Test Current I _{ZTC} mA
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	
SSCZ2V4HS6	Z11	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
SSCZ2V7HS6	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
SSCZ3V0HS6	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
SSCZ3V3HS6	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
SSCZ3V6HS6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
SSCZ3V9HS6	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V3HS6	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V7HS6	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
SSCZ5V1HS6	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
SSCZ5V6HS6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
SSCZ6V2HS6	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
SSCZ6V8HS6	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
SSCZ7V5HS6	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
SSCZ8V2HS6	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
SSCZ9V1HS6	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
SSCZ10VHS6	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
SSCZ11VHS6	Y1	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
SSCZ12VHS6	Y2	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
SSCZ13VHS6	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
SSCZ15VHS6	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
SSCZ16VHS6	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
SSCZ18VHS6	Y6	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
SSCZ20VHS6	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
SSCZ22VHS6	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
SSCZ24VHS6	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
SSCZ27VHS6	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
SSCZ30VHS6	Y11	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
SSCZ33VHS6	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
SSCZ36VHS6	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
SSCZ39VHS6	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
SSCZ43VHS6	Y15	43	40.0	46.0	2	150	375	0.5	0.1	32.0	10.0	12.0	5
SSCZ47VHS6	Y16	47	44.0	50.0	2	170	375	0.5	0.1	35.0	10.0	12.0	5
SSCZ51VHS6	Y17	51	48.0	54.0	2	180	400	0.5	0.1	38.0	10.0	12.0	5
SSCZ56VHS6	Y18	56	52.0	60.0	2	200	425	0.5	0.1	39.0	10.0	12.0	5
SSCZ62VHS6	Y19	62	58.0	66.0	2	215	450	0.5	0.2	47.0	10.0	12.0	5
SSCZ68VHS6	Y20	68	64.0	72.0	2	240	475	0.5	0.2	52.0	10.0	12.0	5



SSCZ75VHS6	Y21	75	70.0	79.0	2	255	500	0.5	0.2	57.0	10.0	12.0	5
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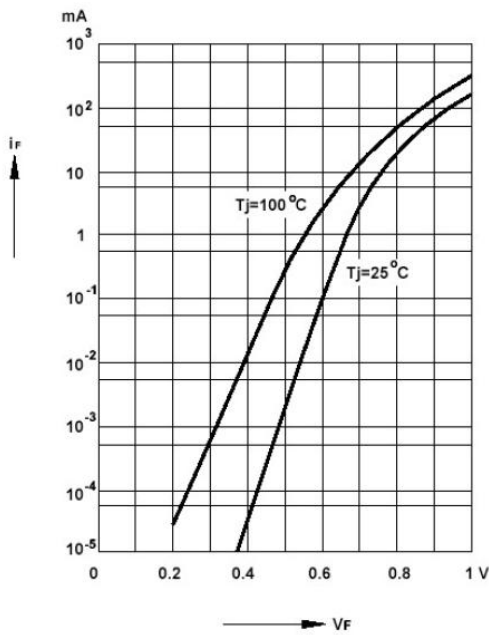
● Typical Performance Characteristics



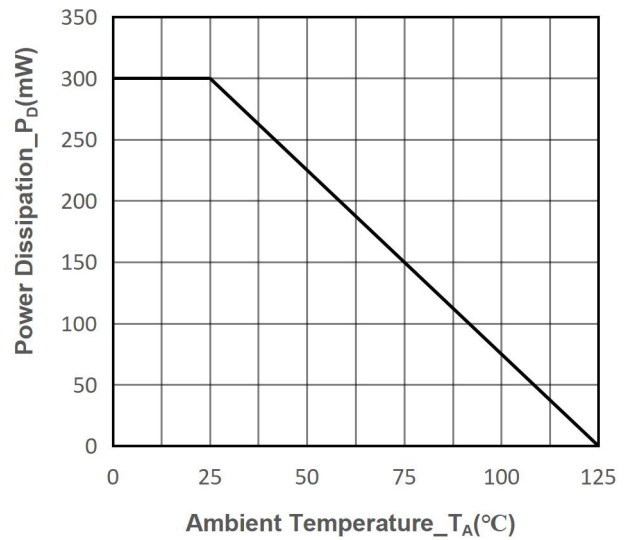
Zener Current vs. Zener Voltage



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



● Package Information

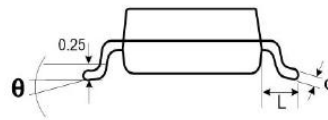
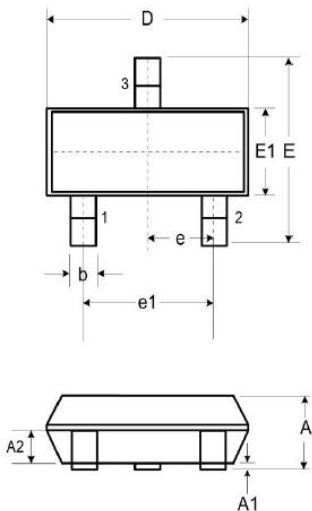
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZXXXHS6	SOT-23	3000	7 Inch

Mechanical Data

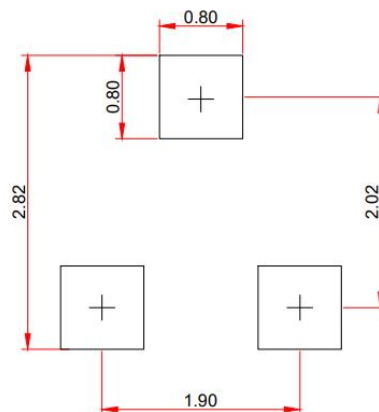
Case: SOT-23

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	1.90		
e1	0.95		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline (Unit: mm)





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