

Z1SMA Series

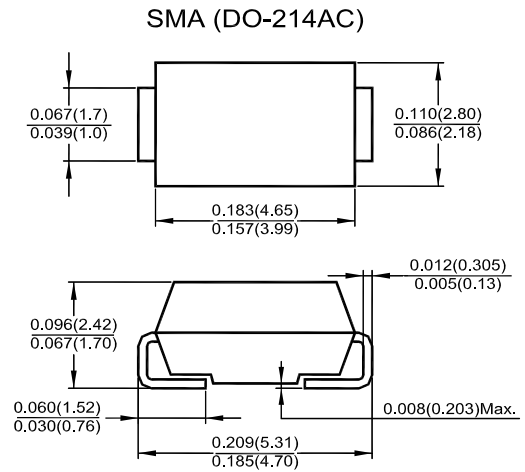
SURFACE MOUNT SILICON ZENER DIODES

Features

- High peak reverse power dissipation
- High reliability
- Low leakage current

Mechanical data

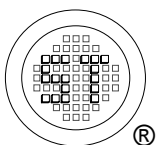
- case: SMA (DO-214AC) molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Lead formed for surface mount
- Polarity: Color band denotes cathode end
- Mounting position: Any



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_d	1	W
Forward Current	I_F	200	mA
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506088

Dated : 14/04/2008 E

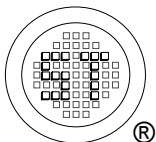
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Electrical Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Type	Zener Voltage ¹⁾			Dynamic Impedance ²⁾		Reverse Current	
	Min. (V)	Max. (V)	I_{ZT} (mA)	Max. Z_{ZT} (Ω)	I_{ZT} (mA)	Max. I_R (μA)	V_R (V)
Z1SMA2V0	1.9	2.2	5	140	5	200	0.5
Z1SMA2V2	2.1	2.4	5	140	5	200	0.7
Z1SMA2V4	2.3	2.6	5	140	5	200	1
Z1SMA2V7	2.5	2.9	5	140	5	150	1
Z1SMA3V0	2.8	3.2	5	140	5	100	1
Z1SMA3V3	3.1	3.5	5	140	5	80	1
Z1SMA3V6	3.4	3.8	5	140	5	60	1
Z1SMA3V9	3.7	4.1	5	140	5	40	1
Z1SMA4V3	4	4.5	5	140	5	20	1
Z1SMA4V7	4.4	4.9	5	100	5	20	1
Z1SMA5V1	4.8	5.4	5	100	5	20	1
Z1SMA5V6	5.3	6	5	70	5	20	1.5
Z1SMA6V2	5.8	6.6	5	40	5	20	3
Z1SMA6V8	6.4	7.2	5	25	5	20	3.5
Z1SMA7V5	7	7.9	5	25	5	20	4
Z1SMA8V2	7.7	8.7	5	25	5	20	5
Z1SMA9V1	8.5	9.6	5	25	5	20	6
Z1SMA10	9.4	10.6	5	20	5	10	7
Z1SMA11	10.4	11.6	5	20	5	10	8
Z1SMA12	11.4	12.6	5	25	5	10	9
Z1SMA13	12.4	14.1	5	30	5	10	10
Z1SMA15	13.8	15.6	5	30	5	10	11
Z1SMA16	15.3	17.1	5	40	5	10	12
Z1SMA18	16.8	19.1	5	45	5	10	13
Z1SMA20	18.8	21.2	5	55	5	10	15
Z1SMA22	20.8	23.3	2	55	2	10	17
Z1SMA24	22.8	25.6	2	70	2	10	19
Z1SMA27	25.1	28.9	2	80	2	10	21
Z1SMA30	28	32	2	80	2	10	23
Z1SMA33	31	35	2	80	2	10	25
Z1SMA36	34	38	2	90	2	10	27
Z1SMA39	37	41	2	130	2	10	30
Z1SMA43	40	45	2	150	2	5	33
Z1SMA47	44	49	2	170	2	5	36
Z1SMA51	48	54	2	220	2	5	39
Z1SMA56	53	60	2	220	2	5	43
Z1SMA62	58	66	2	220	2	5	47
Z1SMA68	64	72	2	230	2	5	52
Z1SMA75	70	79	2	250	2	5	57
Z1SMA82	77	87	2	270	2	5	63
Z1SMA91	85	96	2	340	2	5	69
Z1SMA100	94	106	2	430	2	5	76
Z1SMA110	104	116	2	530	2	5	84
Z1SMA120	114	126	2	620	2	5	91

¹⁾ Test with pulse (40 ms).

²⁾ Z_{ZT} is measured at given an very small A.C. current signal.



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