STEIFPOWER TECHNOLOGY

2.0SMAZ6.2A thru 2.0SMAZ330

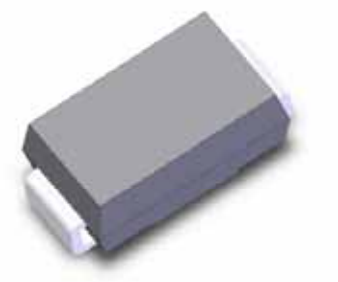
Surface Mount Zener Diodes

Vz Range:6.2 to 330V Power Dissipation:2W

Features

- Toal power dissipation:max,2.0W
- For use in stabilizing and clipping circuits with high power rating
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s

RoHS COMPLIANT



DO-214AC(SMA)

TYPICAL APPLICATIONS

- Protection from high voltage,high energy transients

Mechanical Data

- Case:DO-214AC, molded epoxy body，Epoxy meets UL 94V-0 flammability rating
- Terminal:Matte tin plated leads, solderable per J-STD-002 and JESD22B-106
- Polarity:Indicated by cathode band

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Zener current		See Next Table	
Power dissipation at T_L=75℃	P_{tot}	2	W
Junction temperature	T_j	150	℃
Storage temperature	T_S	-55to+150	℃

Electrical Characteristics

(TA=25℃ unless otherwise noted)

Type number	Device marking code	Nominal zener voltage at IZT Vz(Volts)(1)	Test current IZT(mA)	Maximum zener impedance(2)			Maximum reverse leakage current		Maximum regulator current(3) at TA=50℃
				ZT at IZT	ZK (Ω)	At IZK (mA)	IR(uA)	at VR	IZM(mA)
2.0SMAZ6.2A	2A0	6.2	80.5	1.5	700	1	5	3	292
2.0SMAZ6.8A	2A1	6.8	73.5	2	700	1	5	4	266
2.0SMAZ7.5A	2A2	7.5	66.5	2	700	0.5	5	5	242
2.0SMAZ8.2A	2A3	8.2	61	2.3	700	0.5	5	6	220
2.0SMAZ9.1A	2A4	9.1	55	2.5	700	0.5	3	7	200
2.0SMAZ10A	2A5	10	50	3.5	700	0.25	3	7.6	182
2.0SMAZ11A	2A6	11	45.5	4	700	0.25	1	8.4	166

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Type number	Device marking code	Nominal zener voltage at IZT Vz(Volts)(1)	Test current IZT(mA)	Maximum zener impedance(2)			Maximum reverse leakage current		Maximum regulator current(3) at TA=50°C
				ZT at IZT	ZK (Ω)	At IZK (mA)	IR(uA)	at VR	IZM(mA)
2.0SMAZ12A	2A7	12	41.5	4.5	700	0.25	1	9.1	152
2.0SMAZ13A	2A8	13	38.5	5	700	0.25	0.5	9.9	138
2.0SMAZ14A	2A9	14	35.7	5.5	700	0.25	0.5	10.6	130
2.0SMAZ15A	2B0	15	33.4	7	700	0.25	0.5	11.4	122
2.0SMAZ16A	2B1	16	31.2	8	700	0.25	0.5	12.2	114
2.0SMAZ17A	2B2	17	29.4	9	750	0.25	0.5	13	107
2.0SMAZ18A	2B3	18	27.8	10	750	0.25	0.5	13.7	100
2.0SMAZ19A	2B4	19	26.3	11	750	0.25	0.5	14.4	95
2.0SMAZ20A	2B5	20	25	11	750	0.25	0.5	15.2	90
2.0SMAZ22A	2B6	22	22.8	12	750	0.25	0.5	16.7	82
2.0SMAZ24A	2B7	24	20.8	13	750	0.25	0.5	18.2	76
2.0SMAZ27A	2B8	27	18.5	18	750	0.25	0.5	20.6	68
2.0SMAZ30A	2B9	30	16.6	20	1000	0.25	0.5	22.5	60
2.0SMAZ33A	2C0	33	15.1	23	1000	0.25	0.5	25.1	55
2.0SMAZ36A	2C1	36	13.9	25	1000	0.25	0.5	27.4	50
2.0SMAZ39A	2C2	39	12.8	30	1000	0.25	0.5	29.7	47
2.0SMAZ43A	2C3	43	11.6	35	1500	0.25	0.5	32.7	43
2.0SMAZ47A	2C4	47	10.6	40	1500	0.25	0.5	35.8	39
2.0SMAZ51A	2C5	51	9.8	48	1500	0.25	0.5	38.8	36
2.0SMAZ56A	2C6	56	9	55	2000	0.25	0.5	42.6	32
2.0SMAZ62A	2C7	62	8.1	60	2000	0.25	0.5	47.1	29
2.0SMAZ68A	2C8	68	7.4	75	2000	0.25	0.5	51.7	27
2.0SMAZ75A	2C9	75	6.7	90	2000	0.25	0.5	56	24
2.0SMAZ82A	2F0	82	6.1	100	3000	0.25	0.5	62.2	22
2.0SMAZ91A	2F1	91	5.5	125	3000	0.25	0.5	69.2	20
2.0SMAZ100A	2F2	100	5	175	3000	0.25	0.5	76	18
2.0SMAZ110A	2F3	110	4.5	250	4000	0.25	0.5	83.6	17
2.0SMAZ120A	2F4	120	4.2	325	4500	0.25	0.5	91.2	15
2.0SMAZ130A	2F5	130	3.8	400	5000	0.25	0.5	98.8	14
2.0SMAZ140A	2F6	140	3.6	500	5500	0.25	0.5	106.4	13
2.0SMAZ150A	2F7	150	3.3	575	6000	0.25	0.5	114	12
2.0SMAZ160A	2F8	160	3.1	650	6500	0.25	0.5	121.6	11
2.0SMAZ170A	2F9	170	2.9	675	7000	0.25	0.5	130.4	11
2.0SMAZ180A	2G1	180	2.8	725	7000	0.25	0.5	136.8	10
2.0SMAZ190A	2G2	190	2.6	825	8000	0.25	0.5	144.8	10
2.0SMAZ200A	2G3	200	2.5	1900	9990	0.25	0.5	152	9
2.0SMAZ220A	2G4	220	2	2000	8500	0.25	0.5	167	8
2.0SMAZ270A	2G5	270	1.6	2200	8500	0.25	0.5	205	6.7

Electrical Characteristics

(TA=25°C unless otherwise noted)

Type number	Device marking code	Nominal zener voltage at I_{ZT} Vz(Volts)(1)	Test current I_{ZT}(mA)	Maximum zener impedance(2)			Maximum reverse leakage current		Maximum regulator current(3) at T_A=50°C
				Z_T at I_{ZT}	Z_K (Ω)	At I_{ZK} (mA)	I_R(uA)	at V_R	I_{ZM}(mA)
2.0SMAZ300A	2G6	300	1.5	2200	9000	0.25	0.5	228	5.9
2.0SMAZ330A	2G7	330	1.4	2300	9000	0.25	0.5	250	5.4

Notes: (1). Measured under thermal equilibrium and DC test conditions , Standard voltage tolerance is 10%,suffix A ±5%

(2).The Zener impedance is derived from the 1KHZ AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (IZT or IZK) is superimposed on IZT or IZK. Zener impedance is measure at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units

(3).Valid provided that electrodes at a distance of 10 mm from case are kept at ambient temperature

RATINGS AND CHARACTERISTICS CURVES

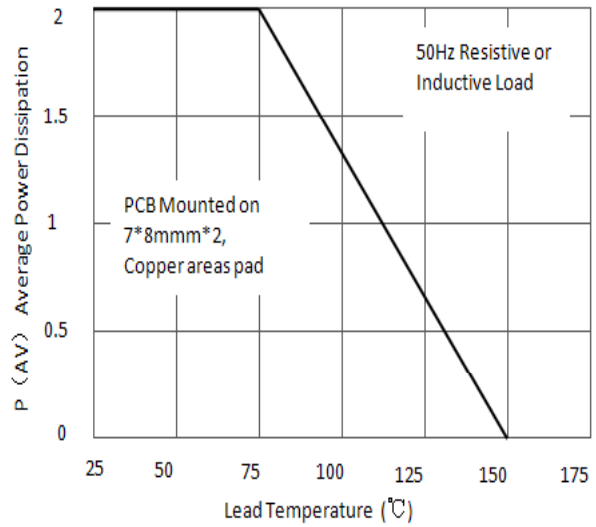

Fig.1 Maximum Continous Power Dissipation

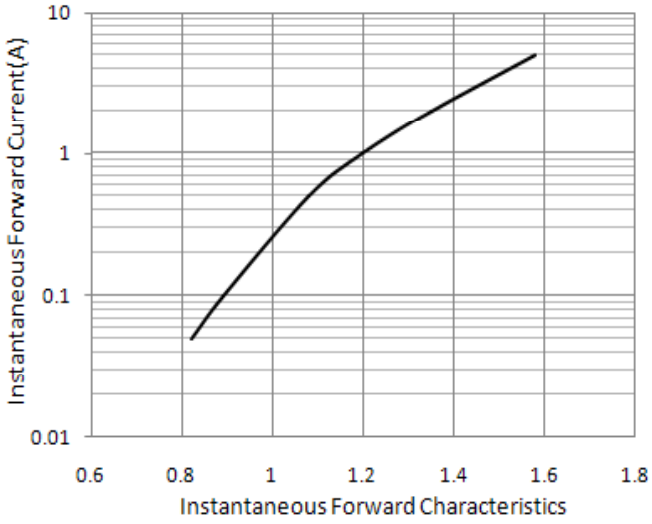

Fig.2 Typical Instantaneous Forward Characteristics

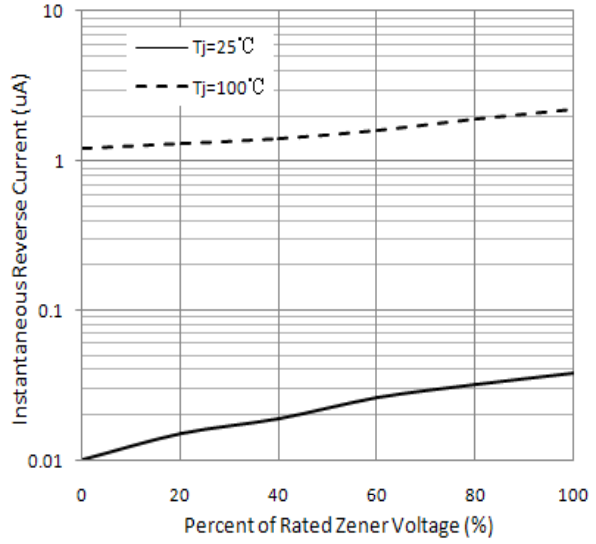

Fig.3 Typical Reverse Characteristics

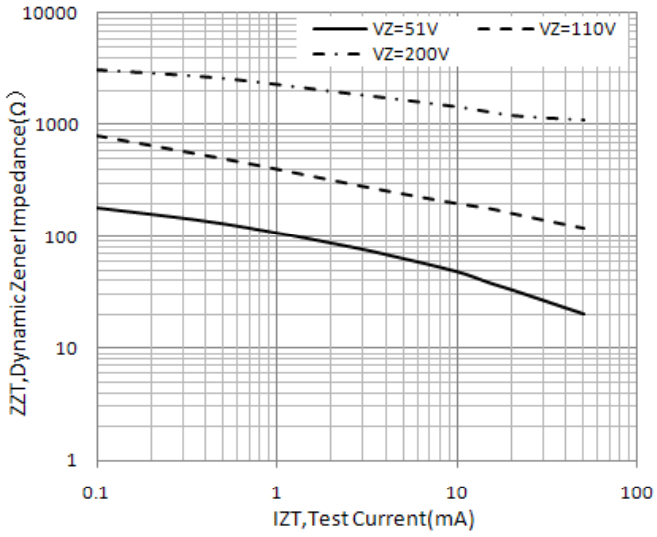

Fig.4 Typical Zener Impedance

2.0SMAZ6.2A thru 2.0SMAZ330

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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)