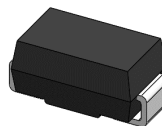


1. 5W,9.1 - 200V Zener Diodes

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Zener voltage tolerance is $\pm 5\%$
- Total power dissipation: Max 1.5W
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified



SMA(DO-214AC)

Applications

Protection from high voltage, high energy transients, voltage stabilization and automotive applications.

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)			
Parameter	Symbol	Ratings	Unit
Zener voltage	V_Z	See Next Table	V
Power dissipation at $T_L=75^\circ\text{C}$	P_{tot}	1.5	W
Maximum instantaneous forward voltage at 200mA	V_F	1.2	V
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Thermal-Mechanical Specifications ($T_A=25^\circ\text{C}$ unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R_{thJA}	90	$^\circ\text{C} / \text{W}$
Thermal Resistance, Junction to Case	R_{thJC}	20	$^\circ\text{C} / \text{W}$
Thermal Resistance, Junction to Lead	R_{thJL}	25	$^\circ\text{C} / \text{W}$

Note:

1.The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 5×5mm copper pads

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Marking	V _Z at I _{ZT} (V)			I _{ZT} (mA)	Maximum zener impedance		I _{ZK} (mA)	Maximum reverse leakage at V _R (μA)	Test voltage V _R (V)	Maximum Zener Current
		Min	Typ	Max		Z _{ZT} at I _{ZT} (Ω)	Z _{ZK} at I _{ZK} (Ω)				I _{ZM} (mA)
A1SMAZ5924	A5924	8.65	9.1	9.56	41.2	4	500	0.5	5	7.0	165
A1SMAZ5925	A5925	9.50	10	10.50	37.5	4.5	500	0.25	5	8.0	150
A1SMAZ5926	A5926	10.45	11	11.55	34.1	5.5	550	0.25	1	8.4	136
A1SMAZ5927	A5927	11.40	12	12.60	31.2	6.5	550	0.25	1	9.1	125
A1SMAZ5928	A5928	12.35	13	13.65	28.8	7	550	0.25	1	9.9	115
A1SMAZ5929	A5929	14.25	15	15.75	25.0	9	600	0.25	1	11.4	100
A1SMAZ5930	A5930	15.20	16	16.80	23.4	10	600	0.25	1	12.2	94
A1SMAZ5931	A5931	17.10	18	18.90	20.8	12	650	0.25	1	13.7	83
A1SMAZ5932	A5932	19.00	20	21.00	18.7	14	650	0.25	1	15.2	75
A1SMAZ5933	A5933	20.90	22	23.10	17.0	17.5	650	0.25	1	16.7	68
A1SMAZ5934	A5934	22.80	24	25.20	15.6	19	700	0.25	1	18.2	63
A1SMAZ5935	A5935	25.65	27	28.35	13.9	23	700	0.25	1	20.6	56
A1SMAZ5936	A5936	28.50	30	31.50	12.5	26	750	0.25	1	22.8	50
A1SMAZ5937	A5937	31.35	33	34.65	11.4	33	800	0.25	1	25.1	45
A1SMAZ5938	A5938	34.20	36	37.80	10.4	38	850	0.25	1	27.4	42
A1SMAZ5939	A5939	37.05	39	40.95	9.6	45	900	0.25	1	29.7	38
A1SMAZ5940	A5940	40.85	43	45.15	8.7	53	950	0.25	1	32.7	35
A1SMAZ5941	A5941	44.65	47	49.35	8.0	67	1000	0.25	1	35.8	32
A1SMAZ5942	A5942	48.45	51	53.55	7.3	70	1100	0.25	1	38.8	29
A1SMAZ5943	A5943	53.20	56	58.80	6.7	86	1300	0.25	1	42.6	27
A1SMAZ5944	A5944	58.90	62	65.10	6.0	100	1500	0.25	1	47.1	24
A1SMAZ5945	A5945	64.60	68	71.40	5.5	120	1700	0.25	1	51.7	22
A1SMAZ5946	A5946	71.25	75	78.75	5.0	140	2000	0.25	1	56.0	20
A1SMAZ5947	A5947	77.90	82	86.10	4.6	160	2500	0.25	1	62.2	28
A1SMAZ5948	A5948	86.45	91	95.55	4.1	200	3000	0.25	1	69.2	16
A1SMAZ5949	A5949	95.0	100	105.0	3.7	250	3100	0.25	1	76.0	15
A1SMAZ5950	A5950	104.5	110	115.5	3.4	300	4000	0.25	1	83.6	13
A1SMAZ5951	A5951	114.0	120	126.0	3.1	380	4500	0.25	1	91.2	12
A1SMAZ5952	A5952	123.5	130	136.5	2.9	450	5000	0.25	1	98.8	11
A1SMAZ5953	A5953	142.5	150	157.5	2.5	600	6000	0.25	1	114.0	10
A1SMAZ5954	A5954	152.0	160	168.0	2.3	700	6500	0.25	1	121.6	9
A1SMAZ5955	A5955	171.0	180	189.0	2.1	900	7000	0.25	1	136.8	8
A1SMAZ5956	A5956	190.0	200	210.0	1.9	1200	8000	0.25	1	152.0	7

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise note)

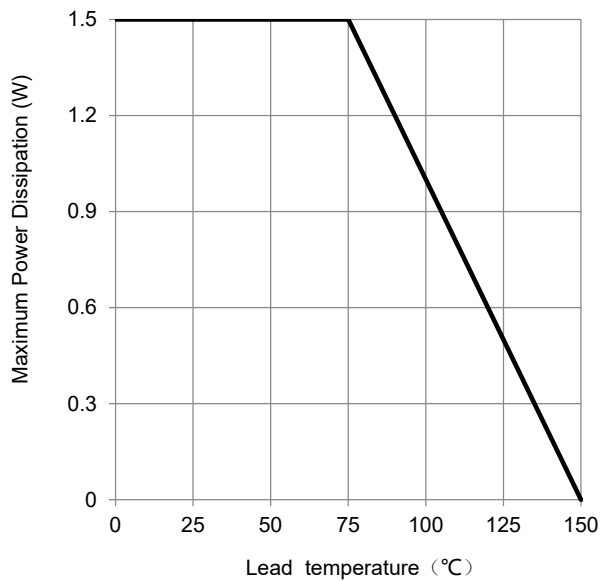


Fig.1 – Power Derating Curve

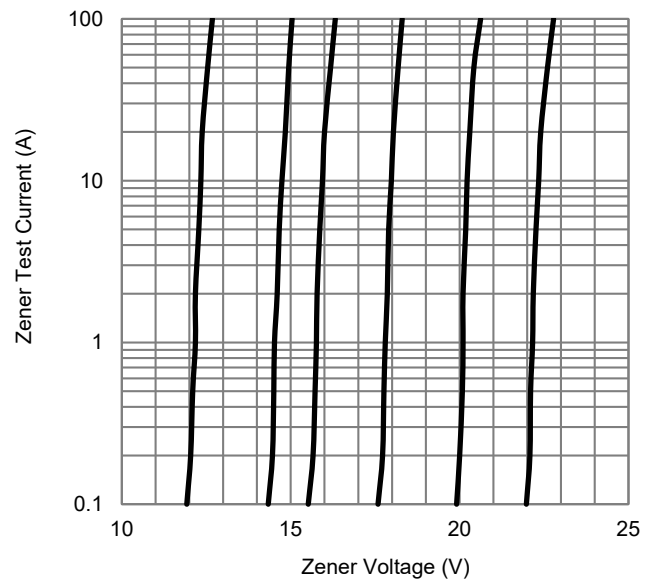


Fig.2 – Typical Zener Voltage

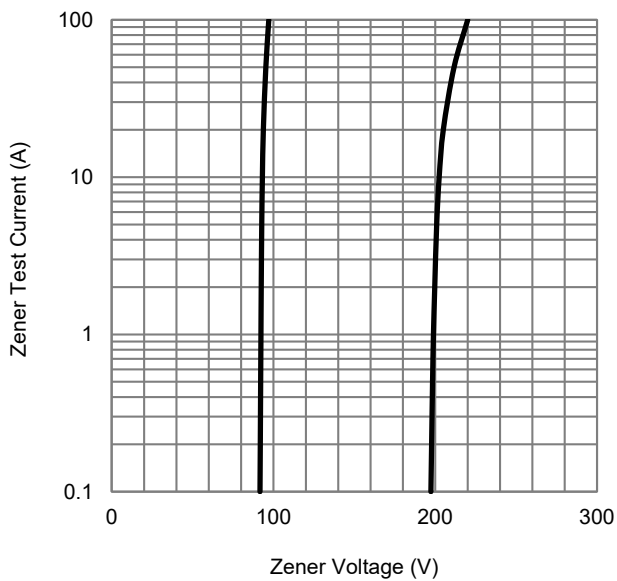
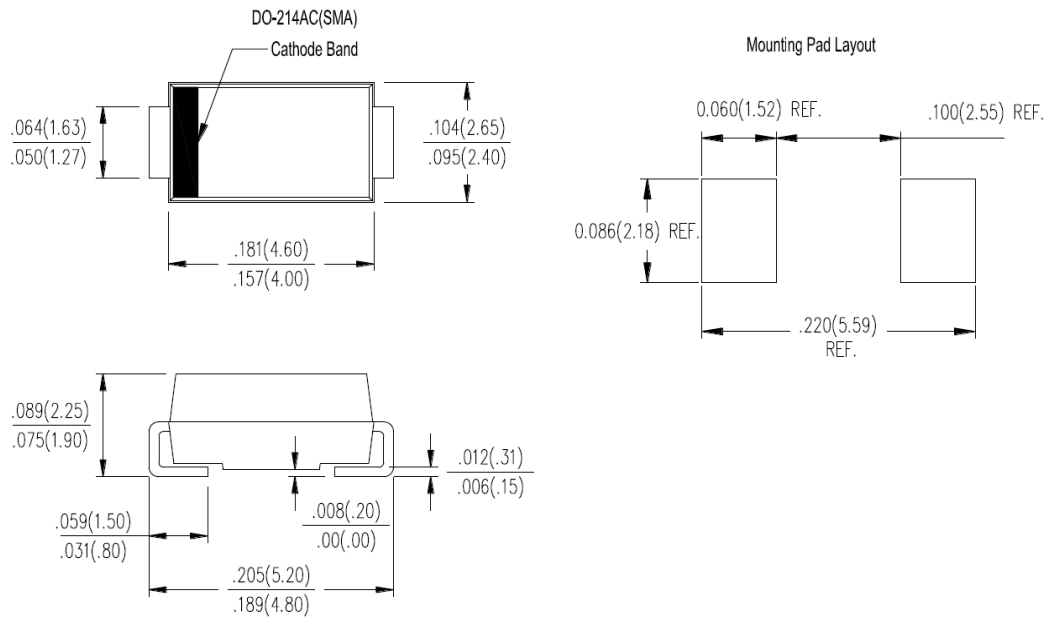


Fig.3 – Typical Zener Voltage

Package Outline Dimensions

in inches (millimeters)

SMA (DO-214AC)



Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.

(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.