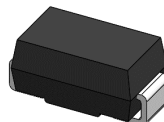


1W,8.2 - 200V Zener Diodes

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Zener voltage tolerance is $\pm 5\%$
- Total power dissipation: Max 1W
- 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.

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	W
Maximum instantaneous forward voltage at 200mA	V_F	0.9	V
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	90	$^\circ\text{C/W}$
Typical Thermal Resistance , Junction to Case	$R_{\theta JC}$	20	$^\circ\text{C/W}$
Typical Thermal Resistance , Junction to Lead	$R_{\theta JL}$	25	$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

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)
A1SMA4738A	A4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6	122
A1SMA4739A	A4739A	8.65	9.1	9.56	28	5	700	0.5	10	7	110
A1SMA4740A	A4740A	9.50	10	10.50	25	7	700	0.25	10	7.6	100
A1SMA4741A	A4741A	10.45	11	11.55	23	8	700	0.25	5	8.4	83
A1SMA4742A	A4742A	11.40	12	12.60	21	9	700	0.25	5	9.1	76
A1SMA4743A	A4743A	12.35	13	13.65	19	10	700	0.25	5	9.9	69
A1SMA4744A	A4744A	14.25	15	15.75	17	14	700	0.25	5	11.4	61
A1SMA4745A	A4745A	15.20	16	16.80	15.5	16	700	0.25	5	12.2	57
A1SMA4746A	A4746A	17.10	18	18.90	14	20	750	0.25	5	13.7	50
A1SMA4747A	A4747A	19.00	20	21.00	12.5	22	750	0.25	5	15.2	45
A1SMA4748A	A4748A	20.90	22	23.10	11.5	23	750	0.25	5	16.7	41
A1SMA4749A	A4749A	22.80	24	25.20	10.5	25	750	0.25	5	18.2	38
A1SMA4750A	A4750A	25.65	27	28.35	9.5	35	750	0.25	5	20.6	34
A1SMA4751A	A4751A	28.50	30	31.50	8.5	40	1000	0.25	5	22.8	30
A1SMA4752A	A4752A	31.35	33	34.65	7.5	45	1000	0.25	5	25.1	27
A1SMA4753A	A4753A	34.20	36	37.80	7	50	1000	0.25	5	27.4	25
A1SMA4754A	A4754A	37.05	39	40.95	6.5	60	1000	0.25	5	29.7	23
A1SMA4755A	A4755A	40.85	43	45.15	6	70	1500	0.25	5	32.7	22
A1SMA4756A	A4756A	44.65	47	49.35	5.5	80	1500	0.25	5	35.8	19
A1SMA4757A	A4757A	48.45	51	53.55	5	95	1500	0.25	5	38.8	18
A1SMA4758A	A4758A	53.20	56	58.80	4.5	110	2000	0.25	5	42.6	16
A1SMA4759A	A4759A	58.90	62	65.10	4	125	2000	0.25	5	47.1	14
A1SMA4760A	A4760A	64.60	68	71.40	3.7	150	2000	0.25	5	51.7	13
A1SMA4761A	A4761A	71.25	75	78.75	3.3	175	2000	0.25	5	56	12
A1SMA4762A	A4762A	77.90	82	86.10	3	200	3000	0.25	5	62.2	11
A1SMA4763A	A4763A	86.45	91	95.55	2.8	250	3000	0.25	5	69.2	10
A1SMA4764A	A4764A	95.0	100	105.0	2.5	350	3000	0.25	5	76	9
A1SMA4771A	A4771A	190	200	210	1.2	1900	9990	0.25	5	152	4.7

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

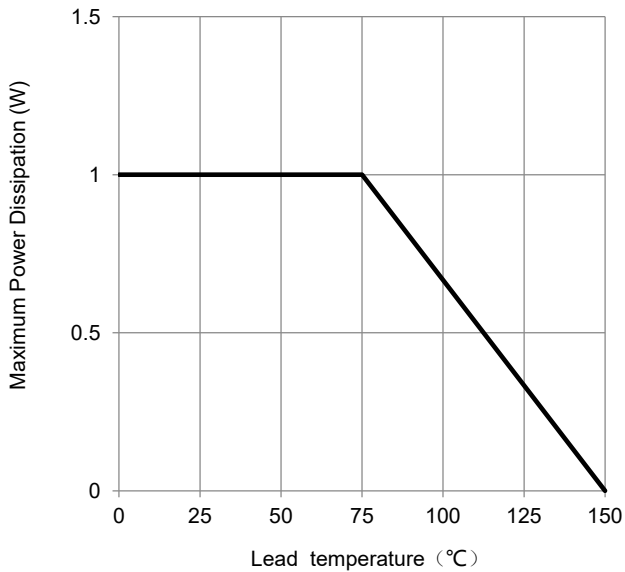


Fig.1 – Power Derating Curve

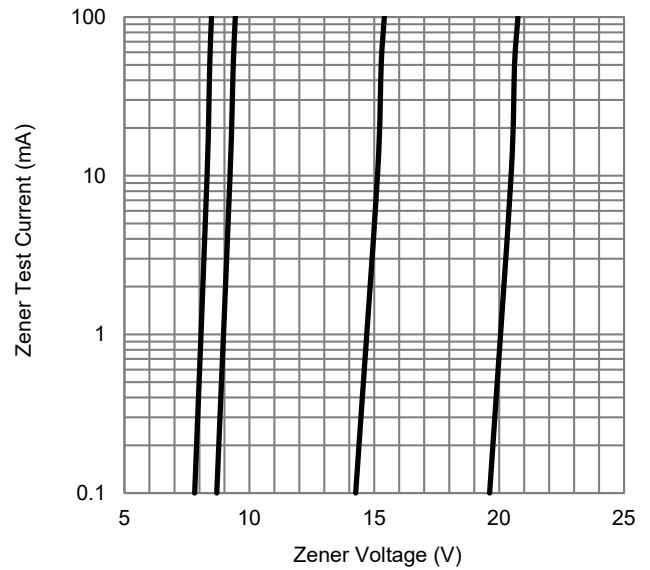


Fig.2 – Typical Zener Voltage

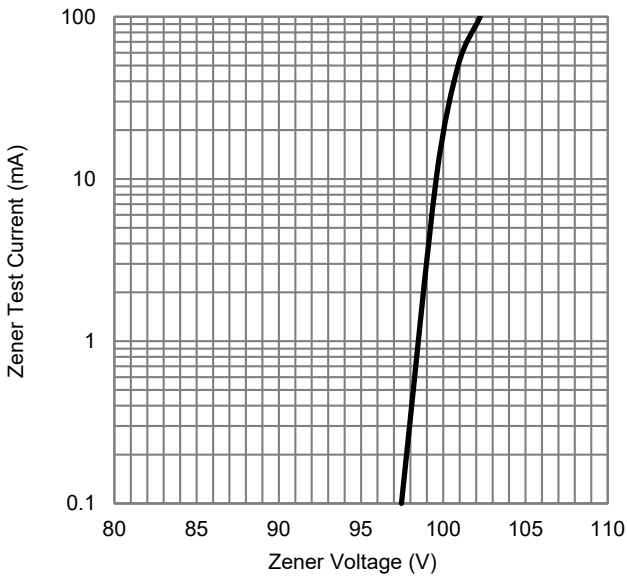
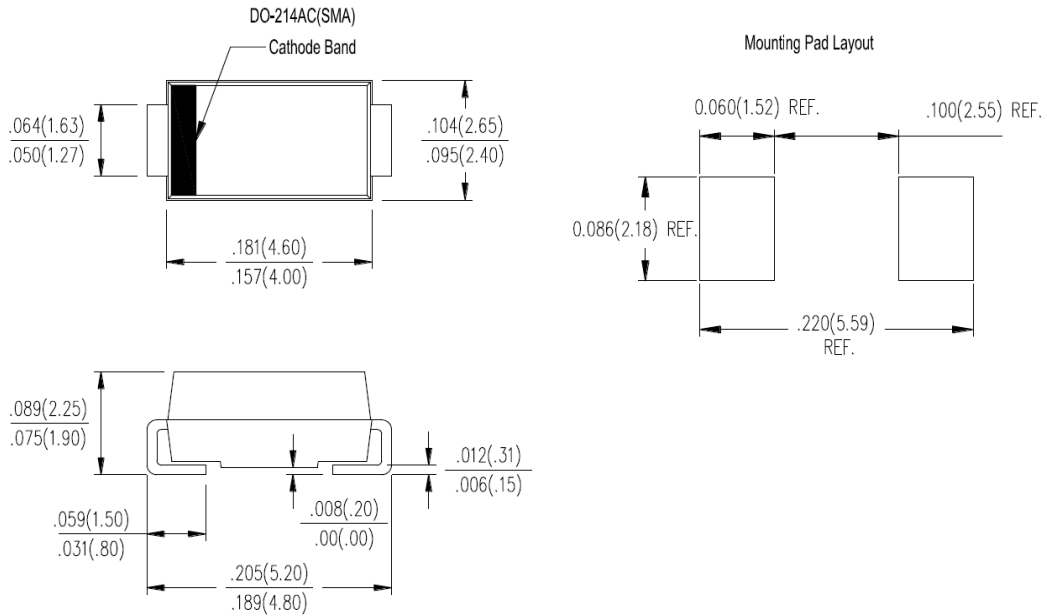


Fig.3 – Typical Zener Voltage

Package Outline Dimensions

in inches (millimeters)

SMA (DO-214AC)



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