

Silicon Zener Diodes

1SMA4728A~1SMA4764A
3.3 to 100 V
1.0W
DO-214AC/SMA

Features

- ◆ Total power dissipation: Max. 1.0 W.
- ◆ Wide zener reverse voltage range 3.3V to 51V.
- ◆ Small plastic package suitable for surface mounted design.

DO-214AC/SMA
Anode

Cathode

Mechanical Data

- ◆ Case: SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.055g / 0.002oz

Symbol



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

Parameter	Symbol	Value	Units
Power Dissipation at $T_c=75^\circ\text{C}$	P_D	1	W
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V
Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_S	-55 to +150	$^\circ\text{C}$

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Electrical Characteristics ($T_A = 25^\circ\text{C}$)

Part Number	Zener Voltage Range ⁽¹⁾			I _{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
	V _Z @ I _{ZT}				Z _{ZT} @ I _{ZT}	I _R @ V _R		
	Min.(V)	Nom.(V)	Max.(V)	(mA)	Max.(Ω)	Max.(μA)	(V)	I _{ZM} (mA)
1SMA4728A	3.10	3.3	3.50	75	10	100	1	285
1SMA4730A	3.70	3.9	4.10	64	9	50	1	243
1SMA4731A	4.06	4.3	4.56	58	9	25	1	219
1SMA4732A	4.50	4.7	4.93	53	8	10	1	203
1SMA4733A	4.84	5.1	5.36	49	7	10	1	186
1SMA4734A	5.32	5.6	5.92	45	5	10	2	170
1SMA4735A	5.86	6.2	6.51	41	2	10	3	154
1SMA4736A	6.46	6.8	7.18	37	3.5	10	4	140
1SMA4737A	7.12	7.5	7.88	34	4	10	5	127
1SMA4738A	7.79	8.2	8.67	31	4.5	10	6	116
1SMA4739A	8.60	9.1	9.59	28	5	10	7	104
1SMA4740A	9.50	10	10.5	25	7	10	7	95
1SMA4741A	10.4	11	11.6	23	8	5	8	86
1SMA4742A	11.4	12	12.6	21	9	5	9	79
1SMA4743A	12.4	13	14.1	19	10	5	10	71
1SMA4744A	13.8	15	15.8	17	14	5	11	63
1SMA4745A	15.2	16	17.1	16	16	5	12	58
1SMA4746A	16.8	18	19.2	14	20	5	13	52
1SMA4747A	19.0	20	21.2	13	22	5	15	47
1SMA4748A	20.8	22	23.3	12	23	5	17	43
1SMA4749A	22.8	24	26.0	11	25	5	18	38
1SMA4750A	25.3	27	28.9	9.5	35	5	21	35
1SMA4751A	28.2	30	32.0	8.5	40	5	23	31
1SMA4752A	31.3	33	34.9	7.5	45	5	25	28
1SMA4753A	34.2	36	37.9	7	50	5	27	26
1SMA4754A	37.2	39	41.5	6.5	60	5	30	24
1SMA4755A	40.9	43	45.6	6	70	1	32	22
1SMA4756A	44.9	47	49.8	5.5	80	1	35	20
1SMA4757A	48.6	51	54.0	5	95	1	38	18

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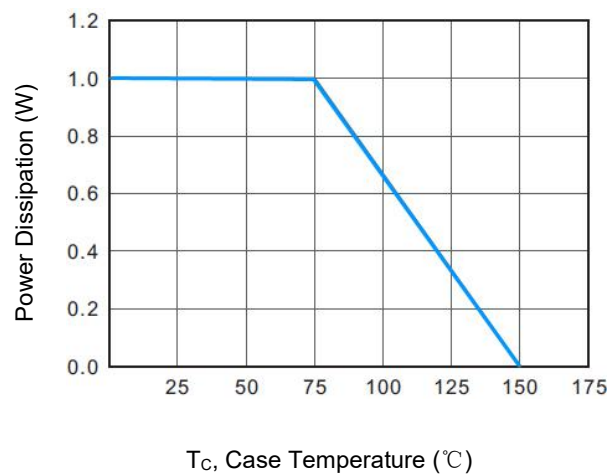
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Electrical Characteristics ($T_A = 25^\circ\text{C}$) (Continue)

Part Number	Zener Voltage Range ⁽¹⁾			I _{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
	V _Z @ I _{ZT}				Z _{ZT} @ I _{ZT}	I _R @ V _R		
	Min.(V)	Nom.(V)	Max.(V)	(mA)	Max.(Ω)	Max.(μA)	(V)	I _{ZM} (mA)
1SMA4758A	53.6	56	58.8	4.5	110	1	42	17
1SMA4759A	58.9	62	65.6	4.0	125	1	47	15
1SMA4760A	64.6	68	71.7	3.7	150	1	52	14
1SMA4761A	71.2	75	78.8	3.3	175	1	56	12
1SMA4762A	77.9	82	87.0	3.0	200	1	62	11
1SMA4763A	86.0	91	96.0	2.8	250	1	69	10
1SMA4764A	95.0	100	105.0	2.5	350	1	76	9.5

Rating and Characteristic Curves

Fig. 1. Maximum Continuous Power Derating

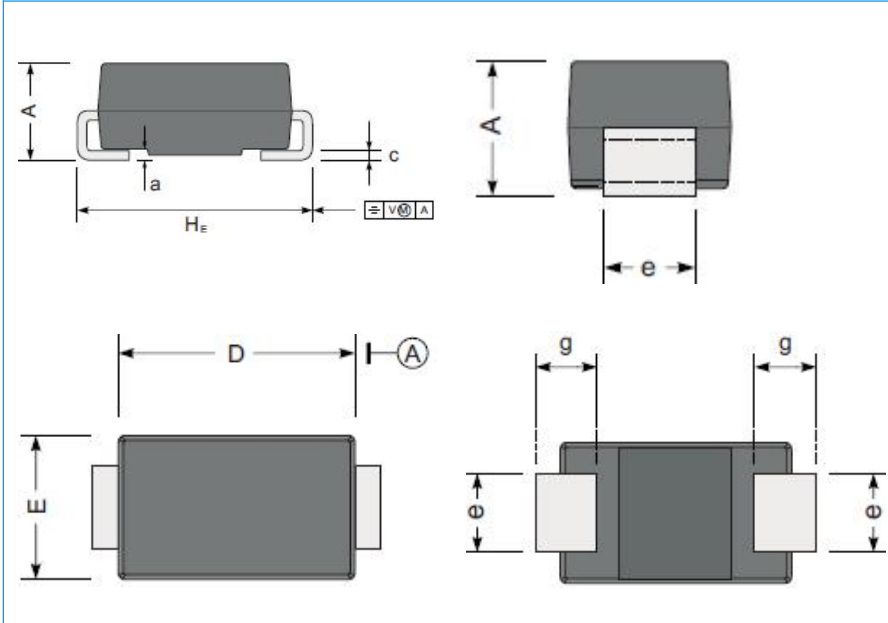


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DO-214AC/SMA Package Outline

Plastic surface mounted package; 2 leads



DIM	mm		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.5	75	98
D	4.0	4.5	157	181
E	2.3	2.8	91	110
H_E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.6	51	63
g	0.9	1.5	35	59
a	0.3		12	

Packaging Information

Part Number	Component Package	Quantity
1SMA4728A~1SMA4764A	DO-214AC/SMA	5000 PCS

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