

Silicon Planar Zener Diodes

Features

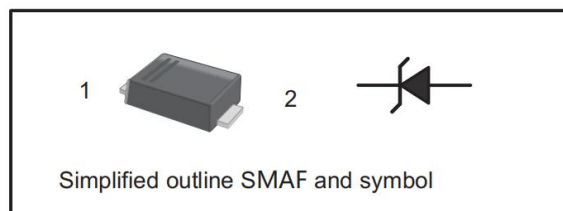
- Total power dissipation: max. 1W
- Wide zener reverse voltage range 3.3V to 91V
- Small plastic package suitable for surface mounted design

Mechanical Data

- Case:SMAF
- Terminals: Solderable per MIL-STD-750,Method 2026
- Approx.Weight: 27mg / 0.00095oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



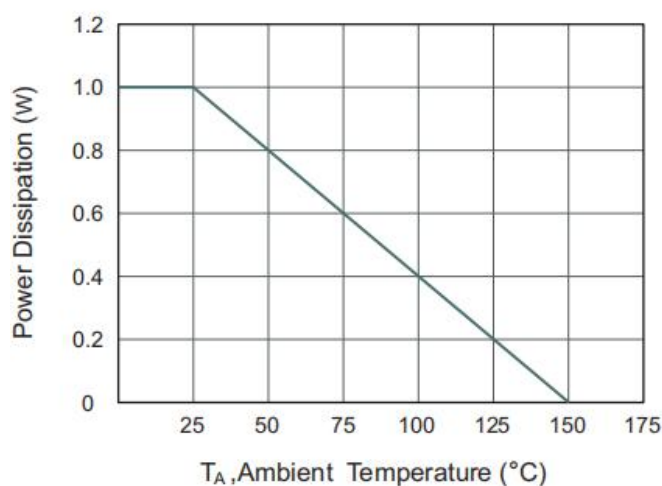
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation at $T_A=25^{\circ}\text{C}$	P_D	1	W
Forward Voltage at $I_F=200\text{mA}$	V_F	1.2	V
Junction Temperature Range	T_J	$-55\sim+150$	$^{\circ}\text{C}$
Storage Temperature Range	T_S	$-55\sim+150$	$^{\circ}\text{C}$
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	100	$^{\circ}\text{C/W}$
	$R_{\theta JC}$	20	
	$R_{\theta JL}$	30	

Note:(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper areas pads.

Typical Characteristics

Fig.1 Maximum Continuous Power Derating



1SMAF4728A THRU 1SMAF4763A

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Characteristics (T_A=25°C)

Type	Marking	Zener Voltage Range ⁽¹⁾				Dynamic Impedance	Reverse Current		Admissible Zener Current
		V _{ZT} (at I _{ZT})			I _{ZT}	Z _{ZT} (at I _{ZT})	I _R	at V _R	
		Min(V)	Nom(V)	Max(V)	(mA)	Max(Ω)	Max(uA)	(V)	I _{ZM} (mA)
1SMAF4728A	728A	3.14	3.3	3.47	75	10	100	1	285
1SMAF4729A	729A	3.42	3.6	3.78	69	10	100	1	263
1SMAF4730A	730A	3.71	3.9	4.1	64	9.0	50	1	243
1SMAF4731A	731A	4.09	4.3	4.52	58	9.0	25	1	219
1SMAF4732A	732A	4.47	4.7	4.94	53	8.0	10	1	203
1SMAF4733A	733A	4.85	5.1	5.36	49	7.0	10	1	186
1SMAF4734A	734A	5.32	5.6	5.88	45	5.0	10	2	170
1SMAF4735A	735A	5.89	6.2	6.51	41	2.0	10	3	154
1SMAF4736A	736A	6.46	6.8	7.14	37	3.5	10	4	140
1SMAF4737A	737A	7.13	7.5	7.88	34	4.0	10	5	127
1SMAF4738A	738A	7.79	8.2	8.61	31	4.5	10	6	116
1SMAF4739A	739A	8.65	9.1	9.56	28	5.0	10	7	104
1SMAF4740A	740A	9.5	10	10.5	25	7.0	10	7	95
1SMAF4741A	741A	10.45	11	11.55	23	8.0	5	8	86
1SMAF4742A	742A	11.4	12	12.6	21	9.0	5	9	79
1SMAF4743A	743A	12.35	13	13.65	19	10	5	10	71
1SMAF4744A	744A	14.25	15	15.75	17	14	5	11	63
1SMAF4745A	745A	15.2	16	16.8	16	16	5	12	58
1SMAF4746A	746A	17.1	18	18.9	14	20	5	13	52
1SMAF4747A	747A	19	20	21	13	22	5	15	47
1SMAF4748A	748A	20.9	22	23.1	12	23	5	17	43
1SMAF4749A	749A	22.8	24	25.2	11	25	5	18	38
1SMAF4750A	750A	25.65	27	28.35	9.5	35	5	21	35
1SMAF4751A	751A	28.5	30	31.5	8.5	40	5	23	31

1SMAF4728A THRU 1SMAF4763A

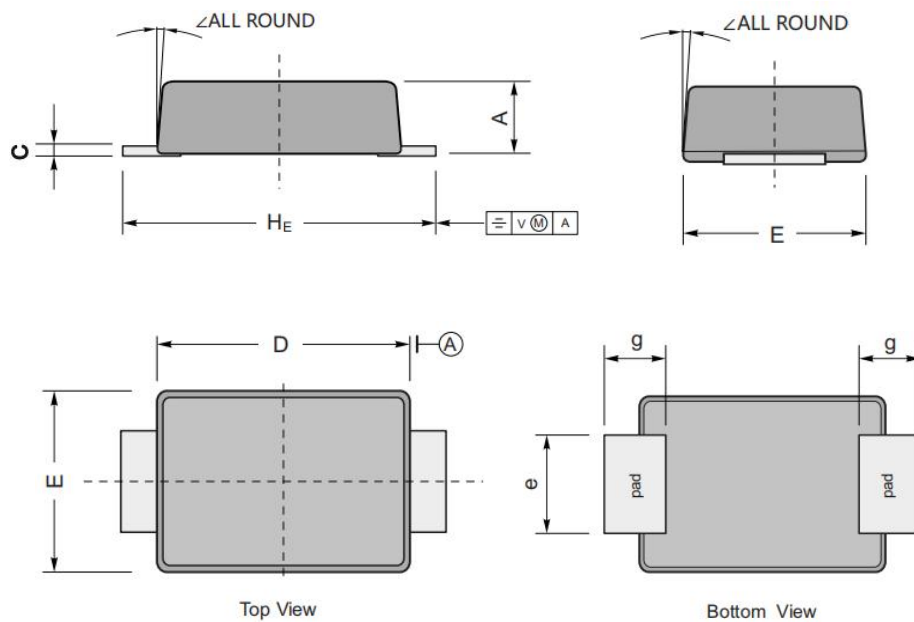
1SMAF4752A	752A	31.35	33	34.65	7.5	45	5	25	28
1SMAF4753A	753A	34.2	36	37.8	7.0	50	5	27	26
1SMAF4754A	754A	37.05	39	40.95	6.5	60	5	30	24
1SMAF4755A	755A	40.85	43	45.15	6.0	70	1	32	22
1SMAF4756A	756A	44.65	47	49.35	5.5	80	1	35	20
1SMAF4757A	757A	48.45	51	53.55	5.0	95	1	38	18
1SMAF4758A	758A	53.2	56	58.8	4.5	110	1	42	17
1SMAF4759A	759A	58.9	62	65.1	4.0	125	1	47	15
1SMAF4760A	760A	64.6	68	71.4	3.7	150	1	52	14
1SMAF4761A	761A	71.25	75	78.75	3.3	175	1	56	12
1SMAF4762A	762A	77.9	82	86.1	3.0	200	1	62	11
1SMAF4763A	763A	86.45	91	95.55	2.8	250	1	69	10

Note:(1)V_{zT} is tested with pulses (20ms).

Package Information

SMAF

Dimensions in mm



Unit		A	C	D	E	e	g	H_E	$\angle$
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

The recommended mounting pad size

