

**Silicon Planar Zener Diodes**
**FEATURES**

- Total power dissipation: Max. 1 W.
- Wide zener reverse voltage range 3.3V to 330V.
- Small plastic package suitable for surface mounted design.
- Lead free in comply with EU RoHS 2011/65/EU directives

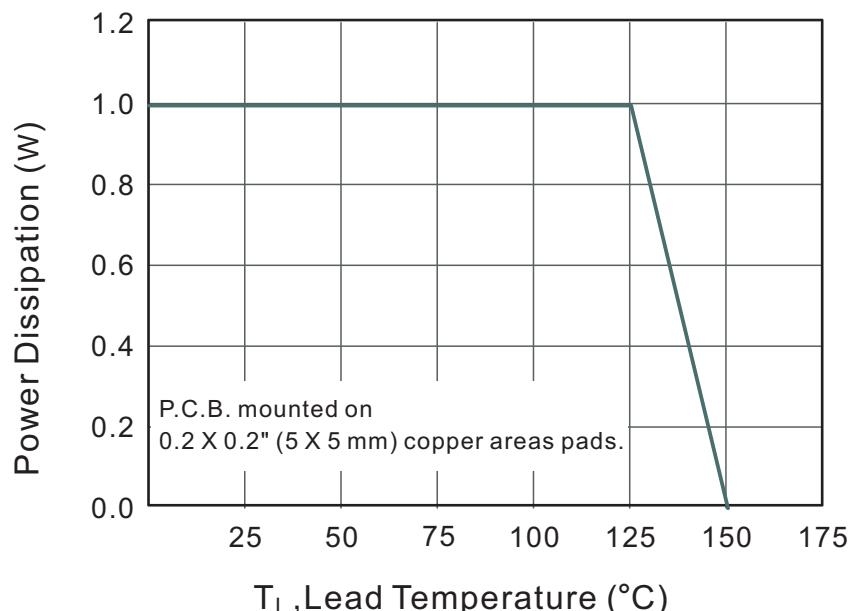
**MECHANICAL DATA**

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg / 0.00086oz

**Absolute Maximum Ratings And Characteristics (Ta = 25 °C)**

Parameter	Symbol	Value	Unit
Power Dissipation at TL=75°C	P <sub>D</sub>	1	W
Forward Voltage at IF = 200 mA	V <sub>F</sub>	1.2	V
Junction Temperature Range	T <sub>J</sub>	55 ~ +150	°C
Storage Temperature Range	T <sub>S</sub>	-55 ~ +150	°C

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

**Fig.1 Maximum Continuous Power Derating**


**Characteristics at Ta = 25°C**

Type	Marking	Zener Voltage Range (1)			I <sub>ZT</sub>	Z <sub>ZT</sub> ( at I <sub>ZT</sub> )	Dynamic Impedance		Reverse Current	Admissible Zener Current
		Min ( V )	Nom ( V )	Max ( V )			(mA)	Max ( Ω )	Max ( μA )	
							(mA)	(V)		I <sub>ZM</sub> (mA)
1SMAF4728A	728A	3.10	3.3	3.50	75	10	100	1	285	
1SMAF4729A	729A	3.40	3.6	3.80	69	10	100	1	263	
1SMAF4730A	730A	3.70	3.9	4.10	64	9.0	50	1	243	
1SMAF4731A	731A	4.06	4.3	4.56	58	9.0	25	1	219	
1SMAF4732A	732A	4.50	4.7	4.93	53	8.0	10	1	203	
1SMAF4733A	733A	4.84	5.1	5.36	49	7.0	10	1	186	
1SMAF4734A	734A	5.32	5.6	5.92	45	5.0	10	2	170	
1SMAF4735A	735A	5.86	6.2	6.51	41	2.0	10	3	154	
1SMAF4736A	736A	6.46	6.8	7.18	37	3.5	10	4	140	
1SMAF4737A	737A	7.12	7.5	7.88	34	4.0	10	5	127	
1SMAF4738A	738A	7.79	8.2	8.67	31	4.5	10	6	116	
1SMAF4739A	739A	8.60	9.1	9.59	28	5.0	10	7	104	
1SMAF4740A	740A	9.50	10	10.5	25	7.0	10	7	95	
1SMAF4741A	741A	10.4	11	11.6	23	8.0	5	8	86	
1SMAF4742A	742A	11.4	12	12.6	21	9.0	5	9	79	
1SMAF4743A	743A	12.4	13	14.1	19	10	5	10	71	
1SMAF4744A	744A	13.8	15	15.8	17	14	5	11	63	
1SMAF4745A	745A	15.2	16	17.1	16	16	5	12	58	
1SMAF4746A	746A	16.8	18	19.2	14	20	5	13	52	
1SMAF4747A	747A	19.0	20	21.2	13	22	5	15	47	
1SMAF4748A	748A	20.8	22	23.3	12	23	5	17	43	
1SMAF4749A	749A	22.8	24	26.0	11	25	5	18	38	
1SMAF4750A	750A	25.3	27	28.9	9.5	35	5	21	35	
1SMAF4751A	751A	28.2	30	32.0	8.5	40	5	23	31	
1SMAF4752A	752A	31.3	33	34.9	7.5	45	5	25	28	
1SMAF4753A	753A	34.2	36	37.9	7.0	50	5	27	26	
1SMAF4754A	754A	37.2	39	41.5	6.5	60	5	30	24	
1SMAF4755A	755A	40.9	43	45.6	6.0	70	1	32	22	
1SMAF4756A	756A	44.9	47	49.8	5.5	80	1	35	20	
1SMAF4757A	757A	48.6	51	54.0	5.0	95	1	38	18	
1SMAF4758A	758A	53.6	56	58.8	4.5	110	1	42	17	
1SMAF4759A	759A	58.9	62	65.6	4.0	125	1	47	15	
1SMAF4760A	760A	64.6	68	71.7	3.7	150	1	52	14	
1SMAF4761A	761A	71.2	75	78.8	3.3	175	1	56	12	
1SMAF4762A	762A	77.9	82	87.0	3.0	200	1	62	11	
1SMAF4763A	763A	86.0	91	96.0	2.8	250	1	69	10	
1SMAF4764A	764A	95.0	100	105	2.5	350	1	76	9.5	
1SMAF4765A	765A	104	110	116	2.3	450	1	84	8.6	
1SMAF4766A	766A	114	120	127	2.0	550	1	91	7.8	
1SMAF4767A	767A	125	135	142	1.9	700	1	100	7.0	
1SMAF4768A	768A	140	150	157	1.7	900	1	110	6.3	
1SMAF4769A	769A	155	165	172	1.6	1100	1	120	5.8	
1SMAF4770A	770A	170	180	191	1.4	1200	1	135	5.2	
1SMAF4771A	771A	189	200	211	1.2	1400	1	150	4.7	
1SMAF4772A	772A	209	220	231	1.0	1600	1	165	4.3	
1SMAF4773A	773A	229	240	251	1.0	1800	1	180	3.9	
1SMAF4774A	774A	249	260	271	1.0	2000	1	190	3.7	
1SMAF4775A	775A	269	280	291	1.0	2100	1	205	3.4	
1SMAF4776A	776A	289	300	315	1.0	2300	1	230	3.1	
1SMAF4777A	777A	313	330	346	1.0	2500	1	250	2.8	

( 1 ) V<sub>ZT</sub> is tested with pulses (20 ms)

**Marking Diagram**



**Ordering information**

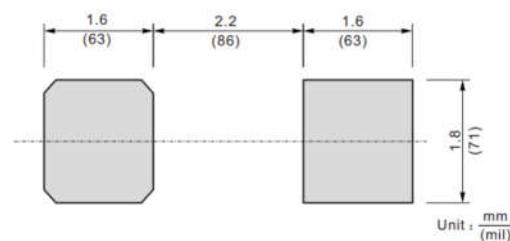
Package	Packing Description	Packing Quantity
SMAF	Tape/Reel, 13" reel	10000PCS/Reel 100000PCS/Carton
	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SMAF**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.1	35	43
C	0.12	0.20	4.7	7.9
D	3.3	3.7	130	146
E	2.4	2.7	94	106
e	1.3	1.6	51	63
g	0.8	1.2	31	47
HE	4.4	4.9	173	193
∠	7°			

**The recommended mounting pad size**



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