



SMAF1W3V3-PJ~SMAF1W330-PJ

Silicon Planar Zener Diodes

Features

- Total power dissipation: 1W max
- Designed for surface mount
- Wide zener reverse voltage range:3.3V to 330V

SMAF



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

Parameter	Symbols	Value	Unit
Maximum Power Dissipation at $T_C = 75\text{ }^\circ\text{C}$	P_D	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbols	Max.	Unit
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V



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Characteristics at $T_A = 25\text{ }^\circ\text{C}$

Type	Marking Code	Zener Voltage Range ^{Note1}			I_{ZT} (mA)	Dynamic Impedance	Reverse Current		Maximum Zener Current I_{ZM} (mA)
		V_{ZT} at I_{ZT}					Z_{ZT} at I_{ZT} Max.(Ω)	I_R Max.(μA)	
		Min.(V)	Nom.(V)	Max.(V)					
SMAF1W3V3-PJ	728A	3.10	3.3	3.50	75	10	100	1	285
SMAF1W3V6-PJ	729A	3.40	3.6	3.80	69	10	100	1	263
SMAF1W3V9-PJ	730A	3.70	3.9	4.10	64	9.0	50	1	243
SMAF1W4V3-PJ	731A	4.06	4.3	4.56	58	9.0	25	1	219
SMAF1W4V7-PJ	732A	4.50	4.7	4.93	53	8.0	10	1	203
SMAF1W5V1-PJ	733A	4.84	5.1	5.36	49	7.0	10	1	186
SMAF1W5V6-PJ	734A	5.32	5.6	5.92	45	5.0	10	2	170
SMAF1W6V2-PJ	735A	5.86	6.2	6.51	41	2.0	10	3	154
SMAF1W6V8-PJ	736A	6.46	6.8	7.18	37	3.5	10	4	140
SMAF1W7V5-PJ	737A	7.12	7.5	7.88	34	4.0	10	5	127
SMAF1W8V2-PJ	738A	7.79	8.2	8.67	31	4.5	10	6	116
SMAF1W9V1-PJ	739A	8.60	9.1	9.59	28	5.0	10	7	104
SMAF1W10-PJ	740A	9.50	10	10.5	25	7.0	10	7	95
SMAF1W11-PJ	741A	10.4	11	11.6	23	8.0	5	8	86
SMAF1W12-PJ	742A	11.4	12	12.6	21	9.0	5	9	79
SMAF1W13-PJ	743A	12.4	13	14.1	19	10	5	10	71
SMAF1W15-PJ	744A	13.8	15	15.8	17	14	5	11	63
SMAF1W16-PJ	745A	15.2	16	17.1	16	16	5	12	58
SMAF1W18-PJ	746A	16.8	18	19.2	14	20	5	13	52
SMAF1W20-PJ	747A	19.0	20	21.2	13	22	5	15	47
SMAF1W22-PJ	748A	20.8	22	23.3	12	23	5	17	43
SMAF1W24-PJ	749A	22.8	24	26.0	11	25	5	18	38
SMAF1W27-PJ	750A	25.3	27	28.9	9.5	35	5	21	35
SMAF1W30-PJ	751A	28.2	30	32.0	8.5	40	5	23	31
SMAF1W33-PJ	752A	31.3	33	34.9	7.5	45	5	25	28
SMAF1W36-PJ	753A	34.2	36	37.9	7.0	50	5	27	26
SMAF1W39-PJ	754A	37.2	39	41.5	6.5	60	5	30	24
SMAF1W43-PJ	755A	40.9	43	45.6	6.0	70	1	32	22
SMAF1W47-PJ	756A	44.9	47	49.8	5.5	80	1	35	20
SMAF1W51-PJ	757A	48.6	51	54.0	5.0	95	1	38	18
SMAF1W56-PJ	758A	53.6	56	58.8	4.5	110	1	42	17
SMAF1W62-PJ	759A	58.9	62	65.6	4.0	125	1	47	15
SMAF1W68-PJ	760A	64.6	68	71.7	3.7	150	1	52	14
SMAF1W75-PJ	761A	71.2	75	78.8	3.3	175	1	56	12



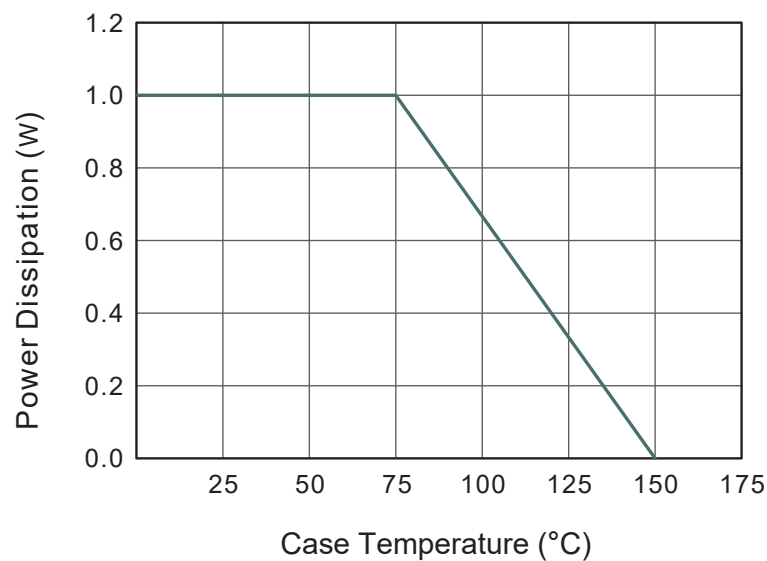
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SMAF1W82-PJ	762A	77.9	82	87.0	3.0	200	1	62	11
SMAF1W91-PJ	763A	86.0	91	96.0	2.8	250	1	69	10
SMAF1W100-PJ	764A	95.0	100	105	2.5	350	1	76	9.5
SMAF1W110-PJ	765A	104	110	116	2.3	450	1	84	8.6
SMAF1W120-PJ	766A	114	120	127	2.0	550	1	91	7.8
SMAF1W135-PJ	767A	125	135	142	1.9	700	1	100	7.0
SMAF1W150-PJ	768A	140	150	157	1.7	900	1	110	6.3
SMAF1W165-PJ	769A	155	165	172	1.6	1100	1	120	5.8
SMAF1W180-PJ	770A	170	180	191	1.4	1200	1	135	5.2
SMAF1W200-PJ	771A	189	200	211	1.2	1400	1	150	4.7
SMAF1W220-PJ	772A	209	220	231	1.0	1600	1	165	4.3
SMAF1W240-PJ	773A	229	240	251	1.0	1800	1	180	3.9
SMAF1W260-PJ	774A	249	260	271	1.0	2000	1	190	3.7
SMAF1W280-PJ	775A	269	280	291	1.0	2100	1	205	3.4
SMAF1W300-PJ	776A	289	300	315	1.0	2300	1	230	3.1
SMAF1W330-PJ	777A	313	330	346	1.0	2500	1	250	2.8

Note: 1. V_{ZT} is tested with 20ms pulse.

Typical Characteristic Curves





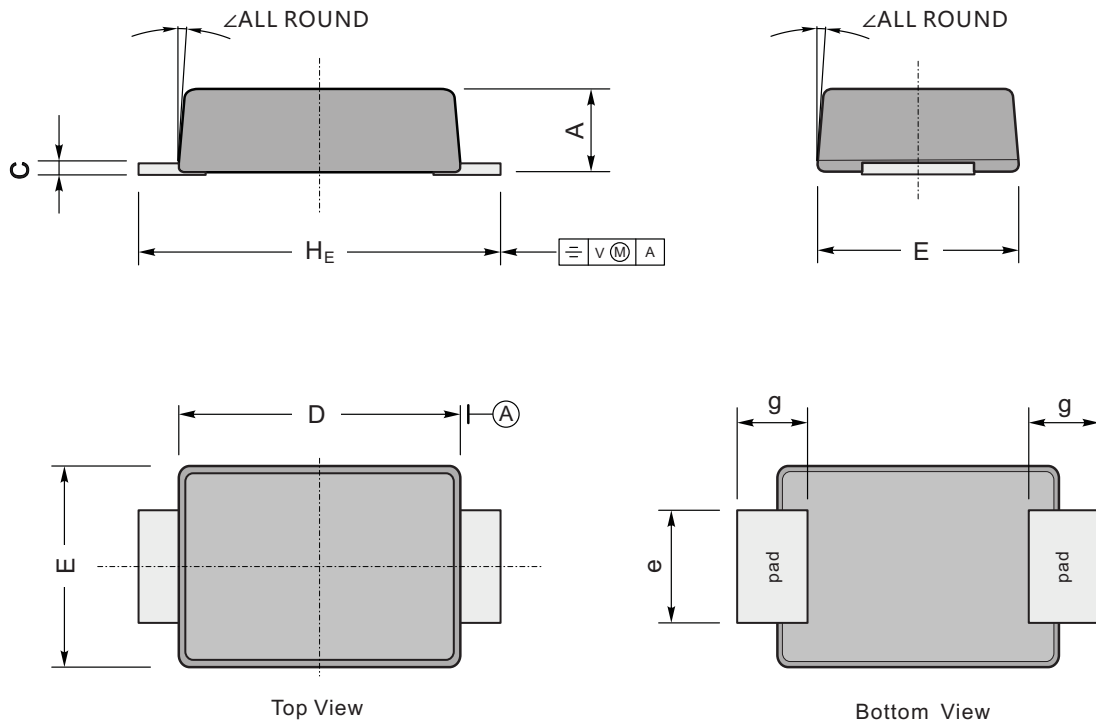
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Package Outline

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	