

# SMAF1W3V3AT THRU SMAF1W330AT

## SILICON PLANAR ZENER DIODES

Power Dissipation: 1.0W

Zener Voltage: 3.3V to 330V

### FEATURES

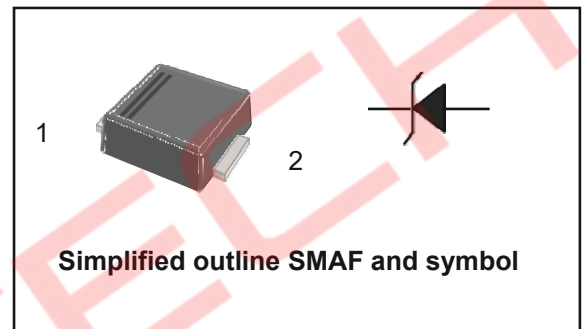
- ◆ Total power dissipation: 1W max.
- ◆ Wide zener reverse voltage range: 3.3V to 330V
- ◆ Designed for surface mount

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

### MECHANICAL DATA

- ◆ Case: SMAF molded plastic body
- ◆ Terminals: Solderable per MIL-STD- 750, Method 2026
- ◆ Weight: Approximated 0.027 grams



### ABSOLUTE MAXIMUM RATINGS AND CHARACTERISTICS (T<sub>A</sub> = 25 °C)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation at T <sub>C</sub> =75°C	P <sub>D</sub>	1	W
Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	V
Junction Temperature Range	T <sub>J</sub>	-55 ~ +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ +150	°C

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## CHARACTERISTICS at T<sub>A</sub>=25 °C

Type	Marking Code	Zener Voltage Range (Note)				Dynamic Impedance	Reverse Current		Maximum Zener Current
		VZT at IZT			IZT	ZZT at IZT	IR	at VR	
		Min(V)	Nom(V)	Max(V)	(mA)	Max (Ω)	Max(μA)	(V)	
SMAF1W3V3AT	728A	3.1	3.3	3.5	75	10	100	1	285
SMAF1W3V6AT	729A	3.4	3.6	3.8	69	10	100	1	263
SMAF1W3V9AT	730A	3.7	3.9	4.1	64	9.0	50	1	243
SMAF1W4V3AT	731A	4.06	4.3	4.56	58	9.0	25	1	219
SMAF1W4V7AT	732A	4.5	4.7	4.93	53	8.0	10	1	203
SMAF1W5V1AT	733A	4.84	5.1	5.36	49	7.0	10	1	186
SMAF1W5V6AT	734A	5.32	5.6	5.92	45	5.0	10	2	170
SMAF1W6V2AT	735A	5.86	6.2	6.51	41	2.0	10	3	154
SMAF1W6V8AT	736A	6.46	6.8	7.18	37	3.5	10	4	140
SMAF1W7V5AT	737A	7.12	7.5	7.88	34	4.0	10	5	127
SMAF1W8V2AT	738A	7.79	8.2	8.67	31	4.5	10	6	116
SMAF1W9V1AT	739A	8.6	9.1	9.59	28	5.0	10	7	104
SMAF1W10AT	740A	9.5	10	10.5	25	7.0	10	7	95
SMAF1W11AT	741A	10.4	11	11.6	23	8.0	5	8	86
SMAF1W12AT	742A	11.4	12	12.6	21	9.0	5	9	79
SMAF1W13AT	743A	12.4	13	14.1	19	10	5	10	71
SMAF1W15AT	744A	13.8	15	15.8	17	14	5	11	63
SMAF1W16AT	745A	15.2	16	17.1	16	16	5	12	58
SMAF1W18AT	746A	16.8	18	19.2	14	20	5	13	52
SMAF1W20AT	747A	19	20	21.2	13	22	5	15	47
SMAF1W22AT	748A	20.8	22	23.3	12	23	5	17	43
SMAF1W24AT	749A	22.8	24	26	11	25	5	18	38
SMAF1W27AT	750A	25.3	27	28.9	9.5	35	5	21	35
SMAF1W30AT	751A	28.2	30	32	8.5	40	5	23	31
SMAF1W33AT	752A	31.3	33	34.9	7.5	45	5	25	28
SMAF1W36AT	753A	34.2	36	37.9	7.0	50	5	27	26
SMAF1W39AT	754A	37.2	39	41.5	6.5	60	5	30	24

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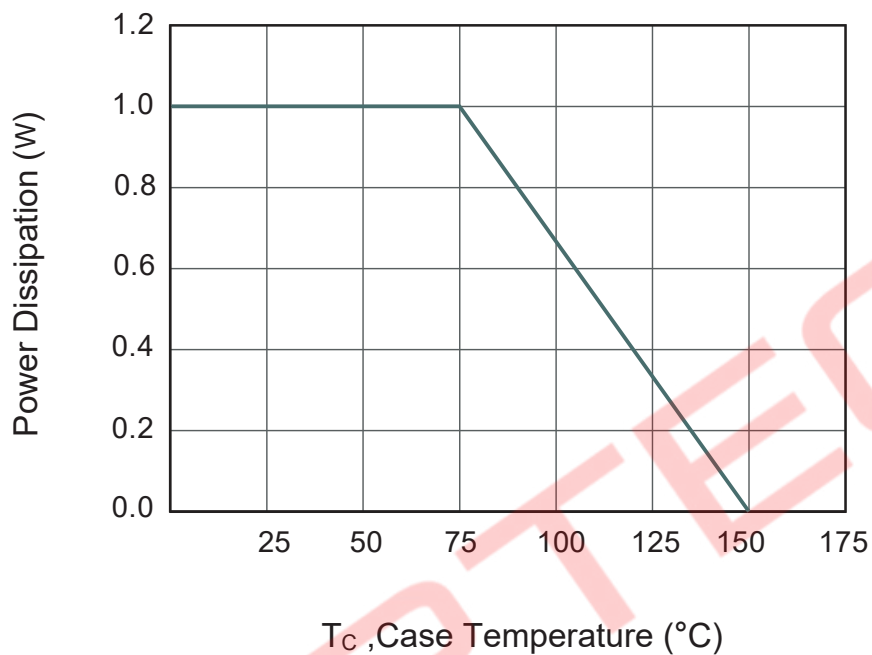
SMAF1W43AT	755A	40.9	43	45.6	6.0	70	1	32	22
SMAF1W47AT	756A	44.9	47	49.8	5.5	80	1	35	20
SMAF1W51AT	757A	48.6	51	54	5.0	95	1	38	18
SMAF1W56AT	758A	53.6	56	58.8	4.5	110	1	42	17
SMAF1W62AT	759A	58.9	62	65.6	4.0	125	1	47	15
SMAF1W68AT	760A	64.6	68	71.7	3.7	150	1	52	14
SMAF1W75AT	761A	71.2	75	78.8	3.3	175	1	56	12
SMAF1W82AT	762A	77.9	82	87	3.0	200	1	62	11
SMAF1W91AT	763A	86	91	96	2.8	250	1	69	10
SMAF1W100AT	764A	95	100	105	2.5	350	1	76	9.5
SMAF1W110AT	765A	104	110	116	2.3	450	1	84	8.6
SMAF1W120AT	766A	114	120	127	2.0	550	1	91	7.8
SMAF1W135AT	767A	125	135	142	1.9	700	1	100	7.0
SMAF1W150AT	768A	140	150	157	1.7	900	1	110	6.3
SMAF1W165AT	769A	155	165	172	1.6	1100	1	120	5.8
SMAF1W180AT	770A	170	180	191	1.4	1200	1	135	5.2
SMAF1W200AT	771A	189	200	211	1.2	1400	1	150	4.7
SMAF1W220AT	772A	209	220	231	1.0	1600	1	165	4.3
SMAF1W240AT	773A	229	240	251	1.0	1800	1	180	3.9
SMAF1W260AT	774A	249	260	271	1.0	2000	1	190	3.7
SMAF1W280AT	775A	269	280	291	1.0	2100	1	205	3.4
SMAF1W300AT	776A	289	300	315	1.0	2300	1	230	3.1
SMAF1W330AT	777A	313	330	346	1.0	2500	1	250	2.8

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

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## RATINGS AND CHARACTERISTIC CURVES

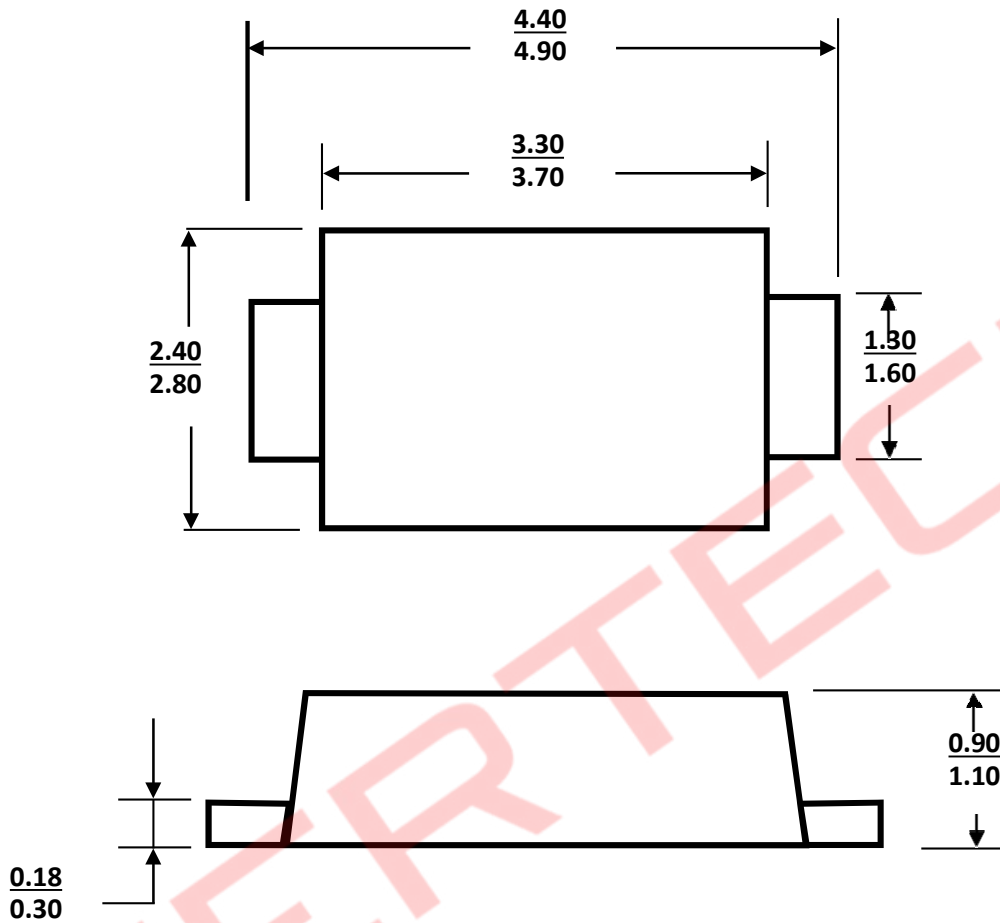
Fig.1 Maximum Continuous Power Derating



# SMAF1W3V3AT THRU SMAF1W330AT

## PACKAGE OUTLINE

### SMAF



Dimensions in millimeters

### ORDERING INFORMATION

Device	Package	Shipping
SMAF1W3V3AT thru SMAF1W330AT	SMAF	3,000/Tape & Reel (7 inches)
		10,000/ Tape & Reel (13 inches)