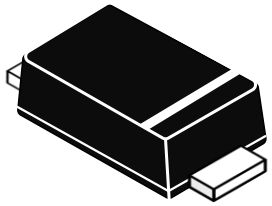
WZSAF47xxA

Surface Mount Silicon Zener Diodes

Features



- For surface mounted applications
- Low profile package
- Easy to pick and place
- High peak reverse power dissipation
- Low Zener impedance
- Built-in strain relief
- RoHS & HF compliant
- MSL: Level 1

Mechanical Characteristics

- Case: SMAF, molded plastic body
- Mounting position: any
- Polarity: Color band denotes cathode end

Absolute Maximum Rating			
Rating	**Symbol**	**Value**	**Units**
Power Dissipation on infinite heat sink T_L = 75 °C	P_D	1.0	W
Maximum forward voltage at if=200mA	VF	1.2	V
Operating Junction Temperature range	T_J	-55 to + 150	℃
Storage temperature range	T_{STG}	-55 to + 150	℃

Note:

(1) TL=Lead temperature at 3/8" (9.5mm)from body.

(2) Ratings at 25 ambient temperature unless otherwise specified.

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Electrical characteristics(TA=25℃ unless otherwise noted)

Part Number	Device Marking Code	Nominal Zener Voltage @I_T			I_{ZT}(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_{Z\ AVE.}$(V)	$V_{Z\ MIN.}$(V)	$V_{Z\ MAX.}$(V)		$Z_{ZT\ MAX.}$(Ω) @I_{ZT}	$Z_{ZK\ MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA) @V_R	V_R(V)	I_{ZM}(mA)
WZSAF4728A	728A	3.3	3.14	3.47	76.0	10	400	1.00	100.0	1.0	274.0
WZSAF4729A	729A	3.6	3.42	3.78	69.0	10	400	1.00	100.0	1.0	251.0
WZSAF4730A	730A	3.9	3.71	4.10	64.0	9	400	1.00	50.0	1.0	232.0
WZSAF4731A	731A	4.3	4.09	4.52	58.0	9	400	1.00	10.0	1.0	210.0
WZSAF4732A	32A	4.7	4.47	4.94	53.0	8	500	1.00	10.0	1.0	192.0
WZSAF4733A	33A	5.1	4.85	5.36	49.0	7	550	1.00	10.0	1.0	177.0
WZSAF4734A	34A	5.6	5.32	5.88	45.0	5	600	1.00	10.0	2.0	161.0
WZSAF4735A	35A	6.2	5.89	6.51	41.0	2	700	1.00	10.0	3.0	146.0
WZSAF4736A	36A	6.8	6.46	7.14	37.0	4	700	1.00	10.0	4.0	133.0
WZSAF4737A	37A	7.5	7.13	7.88	34.0	4	700	0.50	10.0	5.0	121.0
WZSAF4738A	38A	8.2	7.79	8.61	31.0	5	700	0.50	10.0	6.0	110.0
WZSAF4739A	39A	9.1	8.65	9.56	28.0	5	700	0.50	10.0	7.0	100.0
WZSAF4740A	40A	10.0	9.50	10.50	25.0	7	700	0.25	10.0	7.6	91.0
WZSAF4741A	41A	11.0	10.45	11.55	23.0	8	700	0.25	0.5	8.4	83.0
WZSAF4742A	42A	12.0	11.40	12.60	21.0	9	700	0.25	0.5	9.1	76.0
WZSAF4743A	43A	13.0	12.35	13.65	19.0	10	700	0.25	0.5	9.9	69.0
WZSAF4744A	44A	15.0	14.25	15.75	17.0	14	700	0.25	0.5	11.4	61.0
WZSAF4745A	45A	16.0	15.20	16.80	15.5	16	700	0.25	0.5	12.2	57.0
WZSAF4746A	46A	18.0	17.10	18.90	14.0	20	750	0.25	0.5	13.7	50.0
WZSAF4747A	47A	20.0	19.00	21.00	12.5	22	750	0.25	0.5	15.2	45.0
WZSAF4748A	48A	22.0	20.90	23.10	11.5	23	750	0.25	0.5	16.7	41.0
WZSAF4749A	49A	24.0	22.80	25.20	10.5	25	750	0.25	0.5	18.2	38.0
WZSAF4750A	50A	27.0	25.65	28.35	9.5	35	750	0.25	0.5	20.6	34.0
WZSAF4751A	51A	30.0	28.50	31.50	8.5	40	1000	0.25	0.5	22.8	30.0
WZSAF4752A	52A	33.0	31.35	34.65	7.5	45	1000	0.25	0.5	25.1	27.0
WZSAF4753A	53A	36.0	34.20	37.80	7.0	50	1000	0.25	0.5	27.4	25.0
WZSAF4754A	54A	39.0	37.05	40.95	6.5	60	1000	0.25	0.5	29.7	23.0
WZSAF4755A	55A	43.0	40.85	45.15	6.0	70	1500	0.25	0.5	32.7	22.0
WZSAF4756A	56A	47.0	44.65	49.35	5.5	80	1500	0.25	0.5	35.8	19.0
WZSAF4757A	57A	51.0	48.45	53.55	5.0	95	1500	0.25	0.5	38.8	18.0
WZSAF4758A	58A	56.0	53.20	58.80	4.5	110	2000	0.25	0.5	42.6	16.0
WZSAF4759A	59A	62.0	58.90	65.10	4.0	125	2000	0.25	0.5	47.1	14.0
WZSAF4760A	60A	68.0	64.60	71.40	3.7	150	2000	0.25	0.5	51.7	13.0
WZSAF4761A	61A	75.0	71.25	78.75	3.3	175	2000	0.25	0.5	56.0	12.0
WZSAF4762A	62A	82.0	77.90	86.10	3.0	200	3000	0.25	0.5	62.2	11.0
WZSAF4763A	63A	91.0	86.45	95.55	2.8	250	3000	0.25	0.5	69.2	10.0
WZSAF4764A	64A	100.0	95.00	105.00	2.5	350	3000	0.25	0.5	76.0	9.0

Electrical Characteristics Curves

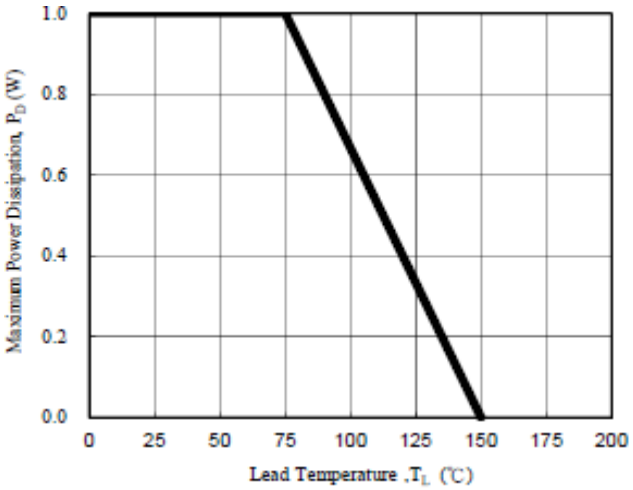


Fig. 1 - Power Temperature Derating Curve

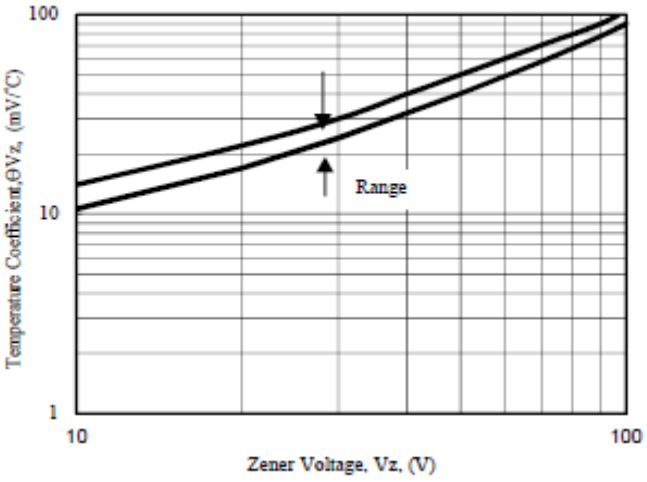


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

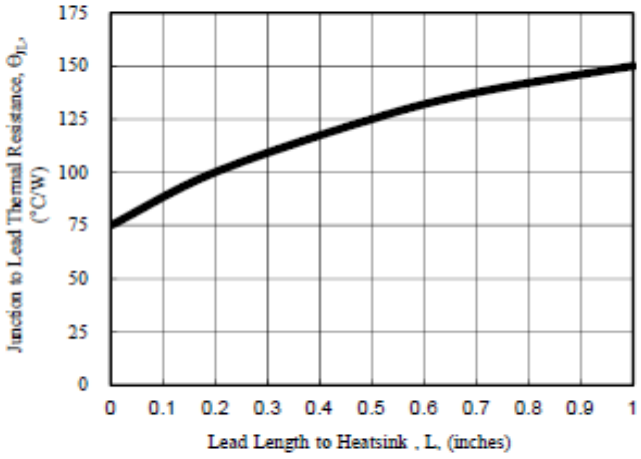
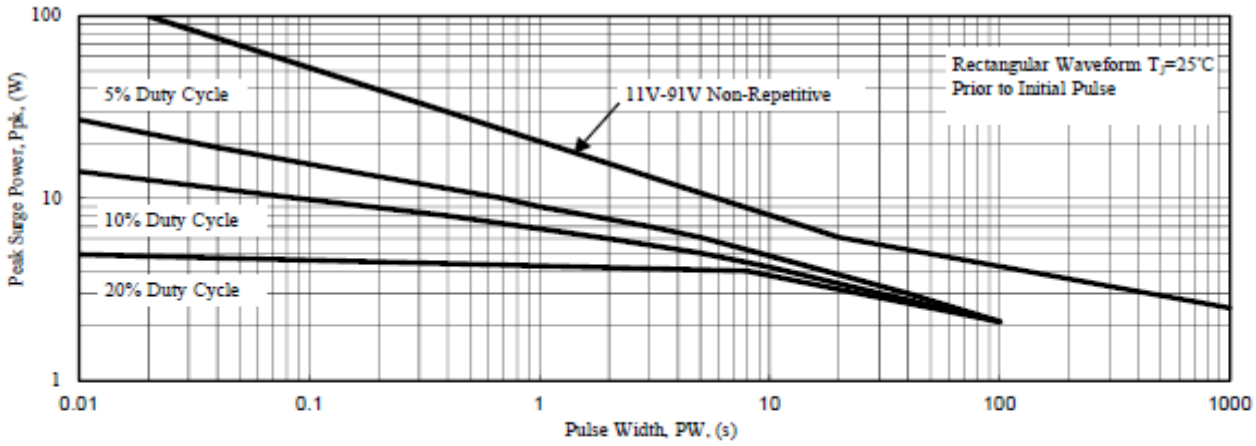


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

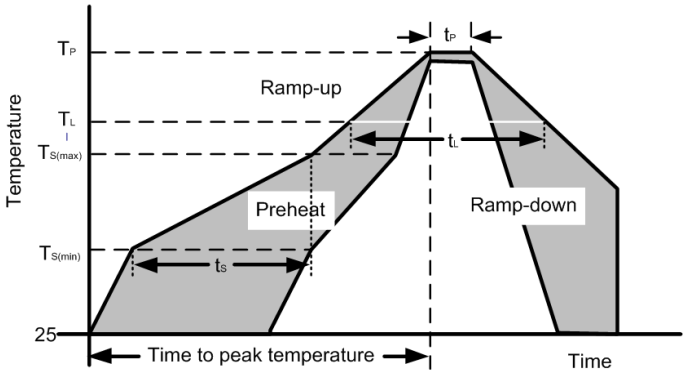


Fg. 4 - Maximum Surge Power

Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required.

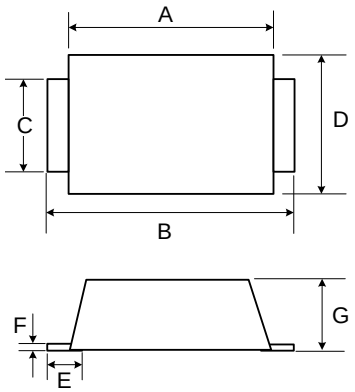
Soldering Parameters

Reflow Condition		
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60-190 s
Average ramp up rate (Liquidus Temp) (T_L) to peak		3°C/s max
Ts(max) to TL - Ramp-up Rate		3°C/s max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60-150 s
Peak Temperature (T_P)		$260^{+0/-5}$ °C
Time within actual peak Temperature (t_p)		20-40 s
Ramp-down Rate		5°C/s max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C

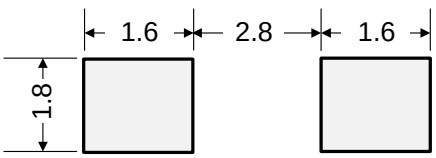


Outline Drawing – SMAF

Ref.（mm）	Millimeters	
	Min.	Max.
A	3.30	3.70
B	4.40	4.90
C	1.30	1.60
D	2.40	2.80
E	0.50	1.30
F	0.10	0.30
G	0.90	1.30



Recommended Solder Pad Layout



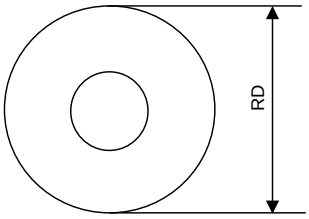
Dimensions in mm

Package Information

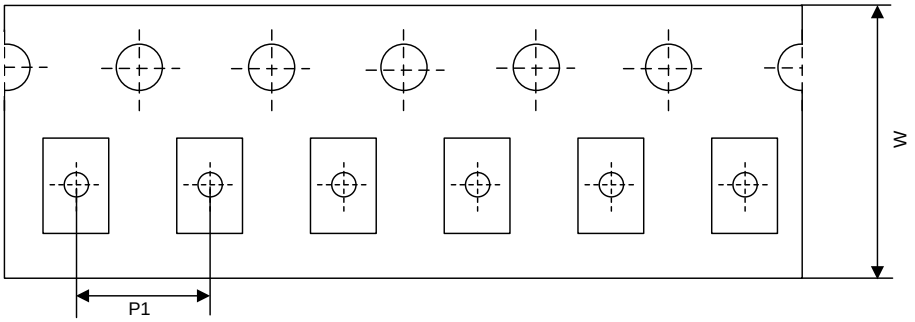
10000 Pcs/Reel

Tape and Reel Information

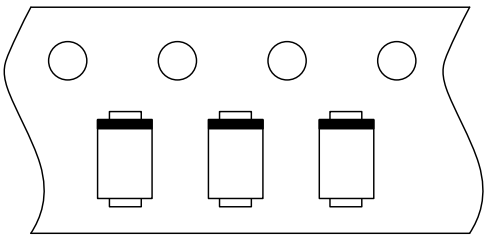
Reel Dimensions



Tape Dimensions



Quadrant Assignments for PIN1 Orientation in tape





User Direction of Feed

Top View

RD	Reel Dimensions	13 inch
W	Overall width of the carrier tape	12 mm
P1	Pitch between successive cavity centers	4 mm

Contact Information

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WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

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