



SML4728A-SML4764A

ZENER 1W SERIES

SML4728A - SML4764A V_Z : 3.3 - 100 Volts P_D : 1 Watt

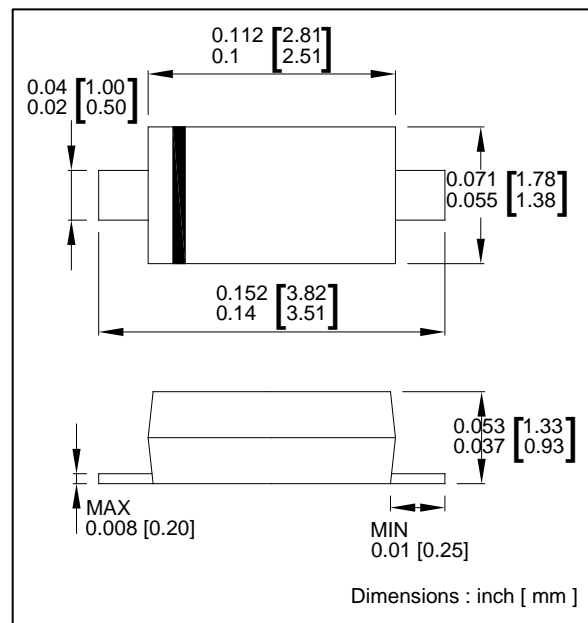
FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power rating

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

SOD-123



RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	1.0	Watts
Peak pulse current with a 10/1000 μs waveform	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	170	K/W
Junction Temperature Range	T_J	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175	$^\circ\text{C}$

Note:

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

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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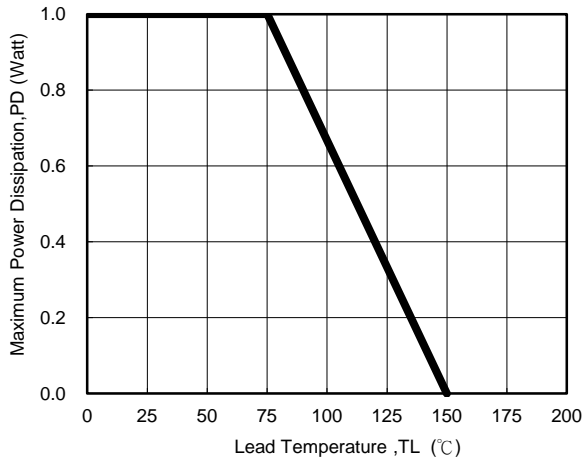


Fig. 1 - Power Temperature Derating Curve

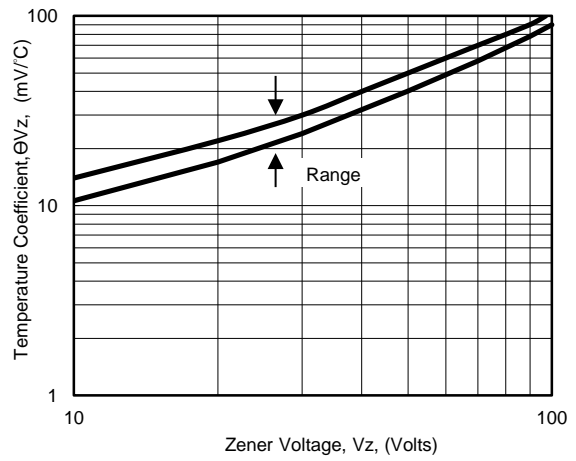


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

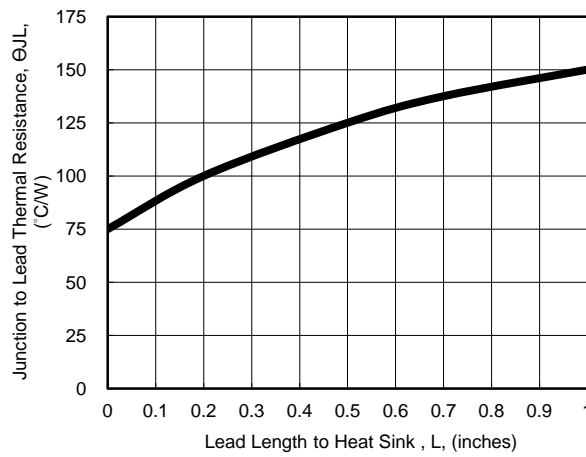


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

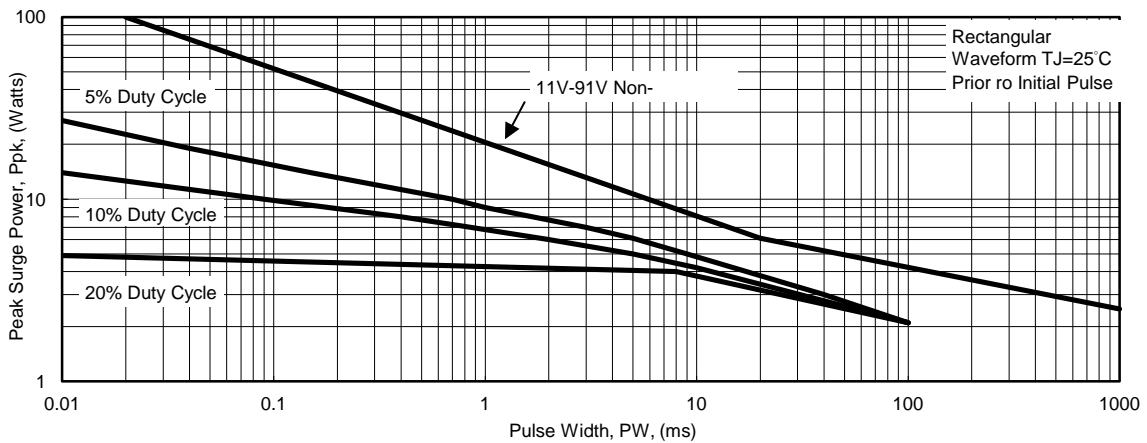


FIG.4 - Maximum Surge Power



Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

ZENER 1W SERIES	DEVICE MARKING CODE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
		VZ @ IZT	IZT	ZZT @ IZT	ZZK @ IZK	IZK	IR @ VR		IZM	IRM
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)
SML4728A	28A	3.3	76.0	10.0	400	1.0	100	1.0	274	1370
SML4729A	29A	3.6	69.0	10.0	400	1.0	100	1.0	251	1255
SML4730A	30A	3.9	64.0	9.0	400	1.0	50	1.0	232	1160
SML4731A	31A	4.3	58.0	9.0	400	1.0	10	1.0	210	1050
SML4732A	32A	4.7	53.0	8.0	500	1.0	10	1.0	192	960
SML4733A	33A	5.1	49.0	7.0	550	1.0	10	1.0	177	885
SML4734A	34A	5.6	45.0	5.0	600	1.0	10	2.0	161	805
SML4735A	35A	6.2	41.0	2.0	700	1.0	10	3.0	146	730
SML4736A	36A	6.8	37.0	3.5	700	1.0	5	4.0	133	660
SML4737A	37A	7.5	34.0	4.0	700	0.5	5	5.0	121	605
SML4738A	38A	8.2	31.0	4.5	700	0.5	5	6.0	110	550
SML4739A	39A	9.1	28.0	5.0	700	0.5	0.5	7.0	100	500
SML4740A	40A	10	25.0	7.0	700	0.25	0.5	7.6	91	454
SML4741A	41A	11	23.0	8.0	700	0.25	0.1	8.4	83	414
SML4742A	42A	12	21.0	9.0	700	0.25	0.1	9.1	76	380
SML4743A	43A	13	19.0	10	700	0.25	0.1	9.9	69	344
SML4744A	44A	15	17.0	14	700	0.25	0.1	11.4	61	305
SML4745A	45A	16	15.5	16	700	0.25	0.1	12.2	57	285
SML4746A	46A	18	14.0	20	750	0.25	0.1	13.7	50	250
SML4747A	47A	20	12.5	22	750	0.25	0.1	15.2	45	225
SML4748A	48A	22	11.5	23	750	0.25	0.1	16.7	41	205
SML4749A	49A	24	10.5	25	750	0.25	0.1	18.2	38	190
SML4750A	50A	27	9.5	35	750	0.25	0.1	20.6	34	170
SML4751A	51A	30	8.5	40	1000	0.25	0.1	22.8	30	150
SML4752A	52A	33	7.5	45	1000	0.25	0.1	25.1	27	135
SML4753A	53A	36	7.0	50	1000	0.25	0.1	27.4	25	125
SML4754A	54A	39	6.5	60	1000	0.25	0.1	29.7	23	115
SML4755A	55A	43	6.0	70	1500	0.25	0.1	32.7	22	110
SML4756A	56A	47	5.5	80	1500	0.25	0.1	35.8	19	95
SML4757A	57A	51	5.0	95	1500	0.25	0.1	38.8	18	90
SML4758A	58A	56	4.5	110	2000	0.25	0.1	42.6	16	80
SML4759A	59A	62	4.0	125	2000	0.25	0.1	47.1	14	70
SML4760A	60A	68	3.7	150	2000	0.25	0.1	51.7	13	65
SML4761A	61A	75	3.3	175	2000	0.25	0.1	56.0	12	60
SML4762A	62A	82	3.0	200	3000	0.25	0.1	62.2	11	55
SML4763A	63A	91	2.8	250	3000	0.25	0.1	69.2	10	50
SML4764A	64A	100	2.5	350	3000	0.25	0.1	76.0	9.0	45

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per JEDEC Method