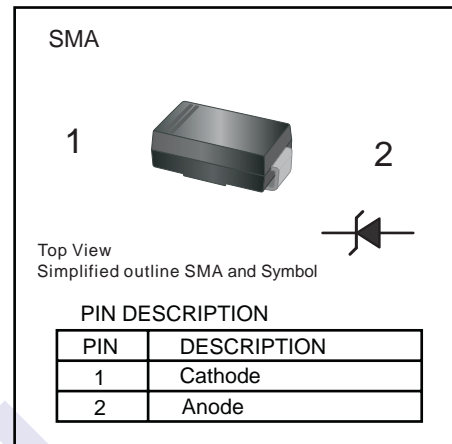


Zener Diodes

1SMA4728 ~ 4777

■ Features

- Total power dissipation: Max. 1 W.
- Wide zener reverse voltage range 3.3V to 330V.
- Small plastic package suitable for surface mounted design.

■ Absolute Maximum Ratings And Characteristics ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V
Power Dissipation at $T_c=75^\circ\text{C}$	P_D	1	W
Junction Temperature	T_j	150	°C
Storage Temperature range	T_{stg}	-55 to +150	

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■ Electrical Characteristics (T_A=25°C unless otherwise noted)

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT} (mA)	Dynamic Impedance Z _{ZT} (at I _{ZT}) Max (Ω)	Reverse Current		Admissible Zener Current I _{ZM} (mA)
		V _{ZT} (at I _{ZT})					I _R Max (μA)	at V _R (V)	
		Min (V)	Nom (V)	Max (V)					
1SMA4728	728A	3.10	3.3	3.50	75	10	100	1	285
1SMA4729	729A	3.40	3.6	3.80	69	10	100	1	263
1SMA4730	730A	3.70	3.9	4.10	64	9.0	50	1	243
1SMA4731	731A	4.06	4.3	4.56	58	9.0	25	1	219
1SMA4732	732A	4.50	4.7	4.93	53	8.0	10	1	203
1SMA4733	733A	4.84	5.1	5.36	49	7.0	10	1	186
1SMA4734	734A	5.32	5.6	5.92	45	5.0	10	2	170
1SMA4735	735A	5.86	6.2	6.51	41	2.0	10	3	154
1SMA4736	736A	6.46	6.8	7.18	37	3.5	10	4	140
1SMA4737	737A	7.12	7.5	7.88	34	4.0	10	5	127
1SMA4738	738A	7.79	8.2	8.67	31	4.5	10	6	116
1SMA4739	739A	8.60	9.1	9.59	28	5.0	10	7	104
1SMA4740	740A	9.50	10	10.5	25	7.0	10	7	95
1SMA4741	741A	10.4	11	11.6	23	8.0	5	8	86
1SMA4742	742A	11.4	12	12.6	21	9.0	5	9	79
1SMA4743	743A	12.4	13	14.1	19	10	5	10	71
1SMA4744	744A	13.8	15	15.8	17	14	5	11	63
1SMA4745	745A	15.2	16	17.1	16	16	5	12	58
1SMA4746	746A	16.8	18	19.2	14	20	5	13	52
1SMA4747	747A	19.0	20	21.2	13	22	5	15	47
1SMA4748	748A	20.8	22	23.3	12	23	5	17	43
1SMA4749	749A	22.8	24	26.0	11	25	5	18	38
1SMA4750	750A	25.3	27	28.9	9.5	35	5	21	35
1SMA4751	751A	28.2	30	32.0	8.5	40	5	23	31
1SMA4752	752A	31.3	33	34.9	7.5	45	5	25	28
1SMA4753	753A	34.2	36	37.9	7.0	50	5	27	26
1SMA4754	754A	37.2	39	41.5	6.5	60	5	30	24
1SMA4755	755A	40.9	43	45.6	6.0	70	1	32	22
1SMA4756	756A	44.9	47	49.8	5.5	80	1	35	20
1SMA4757	757A	48.6	51	54.0	5.0	95	1	38	18
1SMA4758	758A	53.6	56	58.8	4.5	110	1	42	17
1SMA4759	759A	58.9	62	65.6	4.0	125	1	47	15
1SMA4760	760A	64.6	68	71.7	3.7	150	1	52	14
1SMA4761	761A	71.2	75	78.8	3.3	175	1	56	12
1SMA4762	762A	77.9	82	87.0	3.0	200	1	62	11
1SMA4763	763A	86.0	91	96.0	2.8	250	1	69	10
1SMA4764	764A	95.0	100	105	2.5	350	1	76	9.5
1SMA4765	765A	104	110	116	2.3	450	1	84	8.6
1SMA4766	766A	114	120	127	2.0	550	1	91	7.8
1SMA4767	767A	125	135	142	1.9	700	1	100	7.0
1SMA4768	768A	140	150	157	1.7	900	1	110	6.3
1SMA4769	769A	155	165	172	1.6	1100	1	120	5.8
1SMA4770	770A	170	180	191	1.4	1200	1	135	5.2
1SMA4771	771A	189	200	211	1.2	1400	1	150	4.7
1SMA4772	772A	209	220	231	1.0	1600	1	165	4.3
1SMA4773	773A	229	240	251	1.0	1800	1	180	3.9
1SMA4774	774A	249	260	271	1.0	2000	1	190	3.7
1SMA4775	775A	269	280	291	1.0	2100	1	205	3.4
1SMA4776	776A	289	300	315	1.0	2300	1	230	3.1
1SMA4777	777A	313	330	346	1.0	2500	1	250	2.8

(1) V_{ZT} is tested with pulses (20 ms)

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■ Typical Characteristics

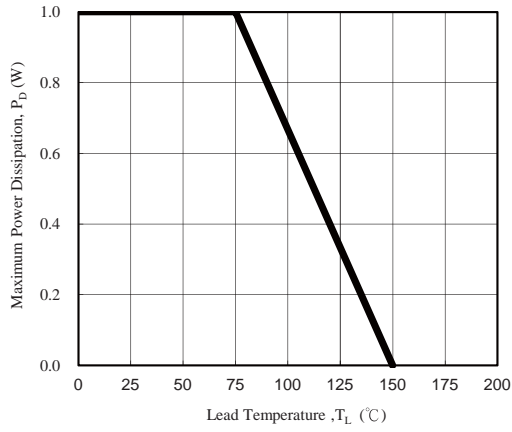


Fig. 1 - Power Temperature Derating Curve

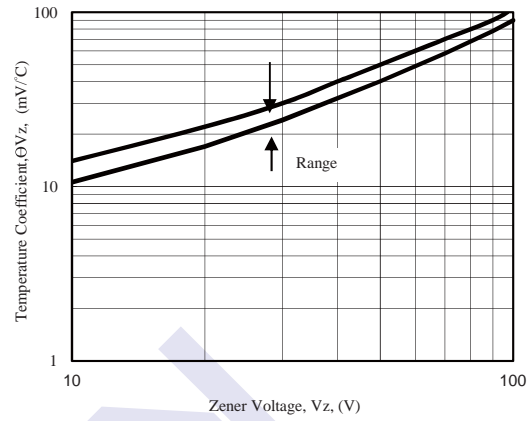


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

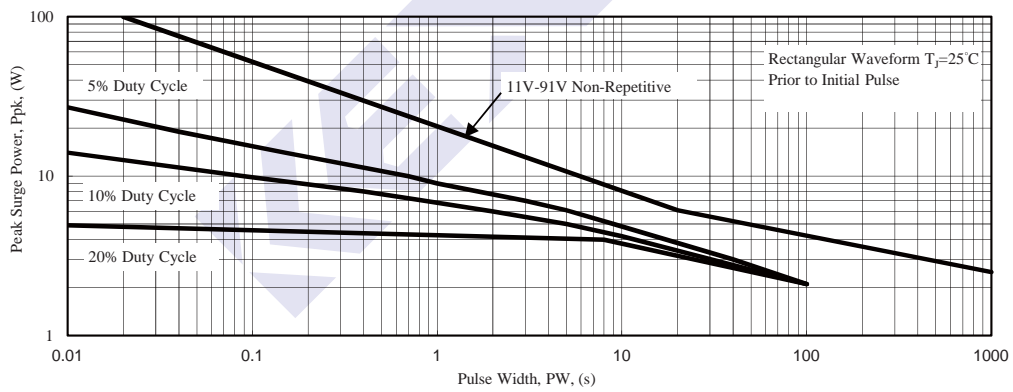


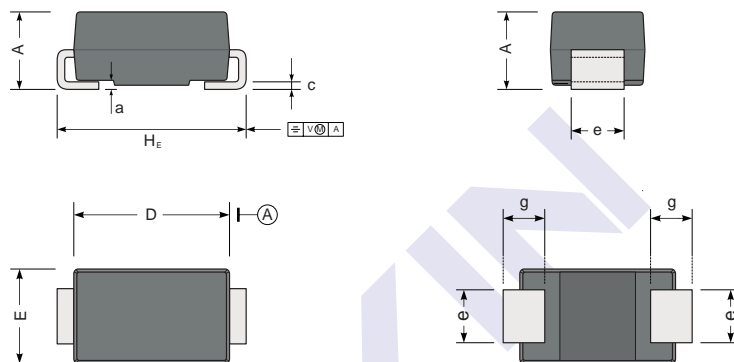
Fig. 3 - Maximum Surge Power

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■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

■ The recommended mounting pad size

