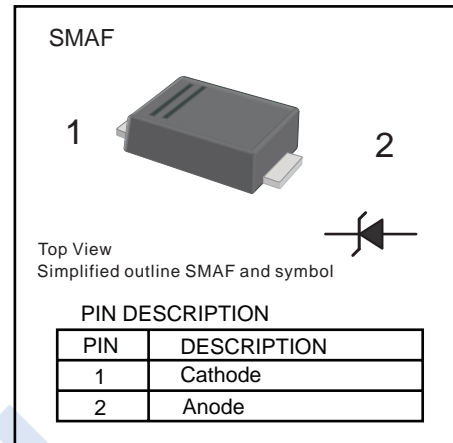


Zener Diodes

1SMA4728F ~ 4777F

■ 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)					
1SMA4728F	728A	3.10	3.3	3.50	75	10	100	1	285
1SMA4729F	729A	3.40	3.6	3.80	69	10	100	1	263
1SMA4730F	730A	3.70	3.9	4.10	64	9.0	50	1	243
1SMA4731F	731A	4.06	4.3	4.56	58	9.0	25	1	219
1SMA4732F	732A	4.50	4.7	4.93	53	8.0	10	1	203
1SMA4733F	733A	4.84	5.1	5.36	49	7.0	10	1	186
1SMA4734F	734A	5.32	5.6	5.92	45	5.0	10	2	170
1SMA4735F	735A	5.86	6.2	6.51	41	2.0	10	3	154
1SMA4736F	736A	6.46	6.8	7.18	37	3.5	10	4	140
1SMA4737F	737A	7.12	7.5	7.88	34	4.0	10	5	127
1SMA4738F	738A	7.79	8.2	8.67	31	4.5	10	6	116
1SMA4739F	739A	8.60	9.1	9.59	28	5.0	10	7	104
1SMA4740F	740A	9.50	10	10.5	25	7.0	10	7	95
1SMA4741F	741A	10.4	11	11.6	23	8.0	5	8	86
1SMA4742F	742A	11.4	12	12.6	21	9.0	5	9	79
1SMA4743F	743A	12.4	13	14.1	19	10	5	10	71
1SMA4744F	744A	13.8	15	15.8	17	14	5	11	63
1SMA4745F	745A	15.2	16	17.1	16	16	5	12	58
1SMA4746F	746A	16.8	18	19.2	14	20	5	13	52
1SMA4747F	747A	19.0	20	21.2	13	22	5	15	47
1SMA4748F	748A	20.8	22	23.3	12	23	5	17	43
1SMA4749F	749A	22.8	24	26.0	11	25	5	18	38
1SMA4750F	750A	25.3	27	28.9	9.5	35	5	21	35
1SMA4751F	751A	28.2	30	32.0	8.5	40	5	23	31
1SMA4752F	752A	31.3	33	34.9	7.5	45	5	25	28
1SMA4753F	753A	34.2	36	37.9	7.0	50	5	27	26
1SMA4754F	754A	37.2	39	41.5	6.5	60	5	30	24
1SMA4755F	755A	40.9	43	45.6	6.0	70	1	32	22
1SMA4756F	756A	44.9	47	49.8	5.5	80	1	35	20
1SMA4757F	757A	48.6	51	54.0	5.0	95	1	38	18
1SMA4758F	758A	53.6	56	58.8	4.5	110	1	42	17
1SMA4759F	759A	58.9	62	65.6	4.0	125	1	47	15
1SMA4760F	760A	64.6	68	71.7	3.7	150	1	52	14
1SMA4761F	761A	71.2	75	78.8	3.3	175	1	56	12
1SMA4762F	762A	77.9	82	87.0	3.0	200	1	62	11
1SMA4763F	763A	86.0	91	96.0	2.8	250	1	69	10
1SMA4764F	764A	95.0	100	105	2.5	350	1	76	9.5
1SMA4765F	765A	104	110	116	2.3	450	1	84	8.6
1SMA4766F	766A	114	120	127	2.0	550	1	91	7.8
1SMA4767F	767A	125	135	142	1.9	700	1	100	7.0
1SMA4768F	768A	140	150	157	1.7	900	1	110	6.3
1SMA4769F	769A	155	165	172	1.6	1100	1	120	5.8
1SMA4770F	770A	170	180	191	1.4	1200	1	135	5.2
1SMA4771F	771A	189	200	211	1.2	1400	1	150	4.7
1SMA4772F	772A	209	220	231	1.0	1600	1	165	4.3
1SMA4773F	773A	229	240	251	1.0	1800	1	180	3.9
1SMA4774F	774A	249	260	271	1.0	2000	1	190	3.7
1SMA4775F	775A	269	280	291	1.0	2100	1	205	3.4
1SMA4776F	776A	289	300	315	1.0	2300	1	230	3.1
1SMA4777F	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

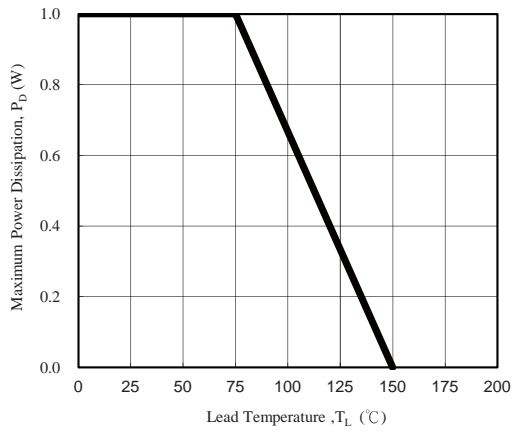


Fig. 1 - Power Temperature Derating Curve

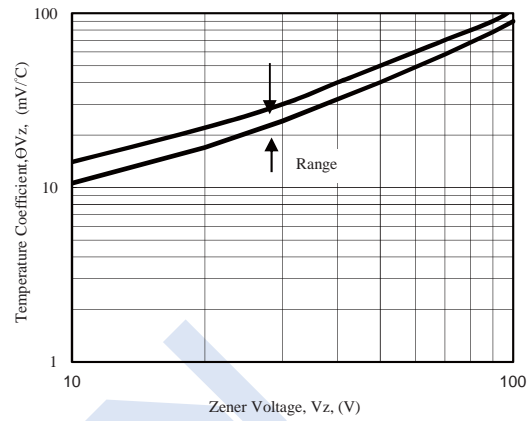


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

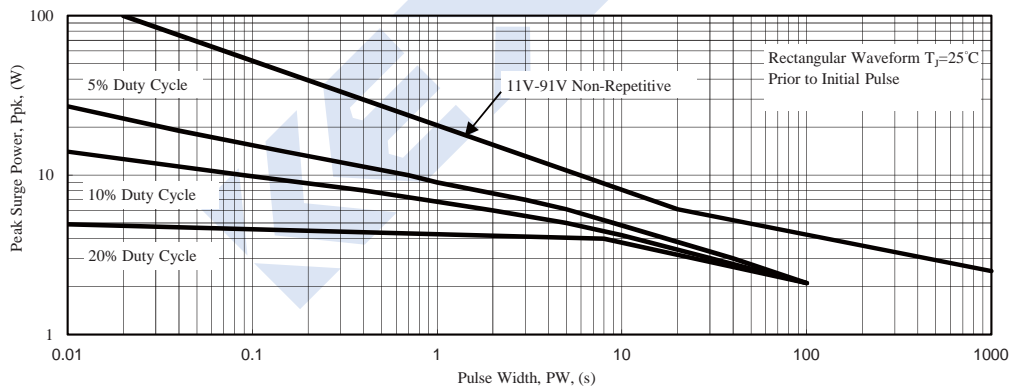


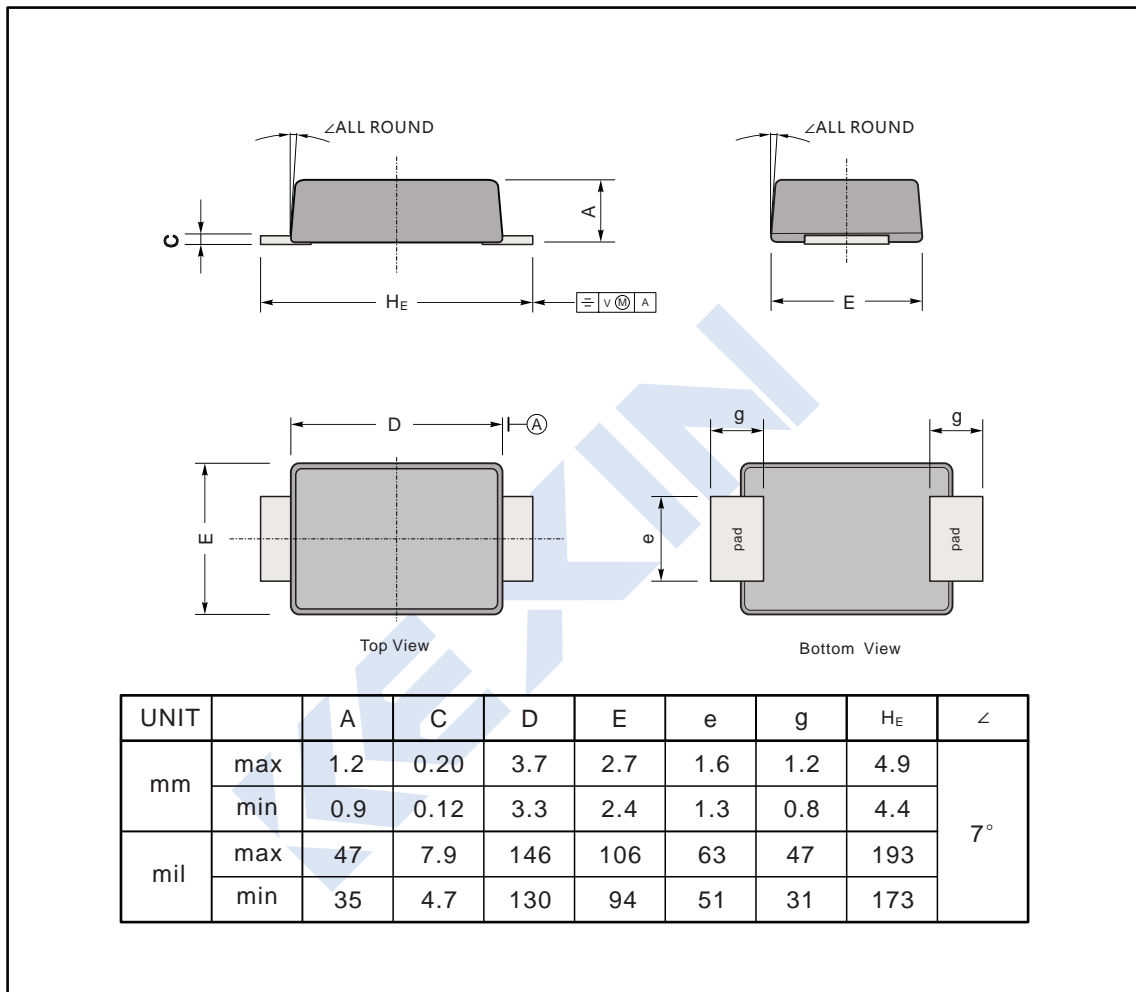
Fig. 3 - Maximum Surge Power

1SMA4728F ~ 4777F

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMAF



■ The recommended mounting pad size

