

ZMF21 Series

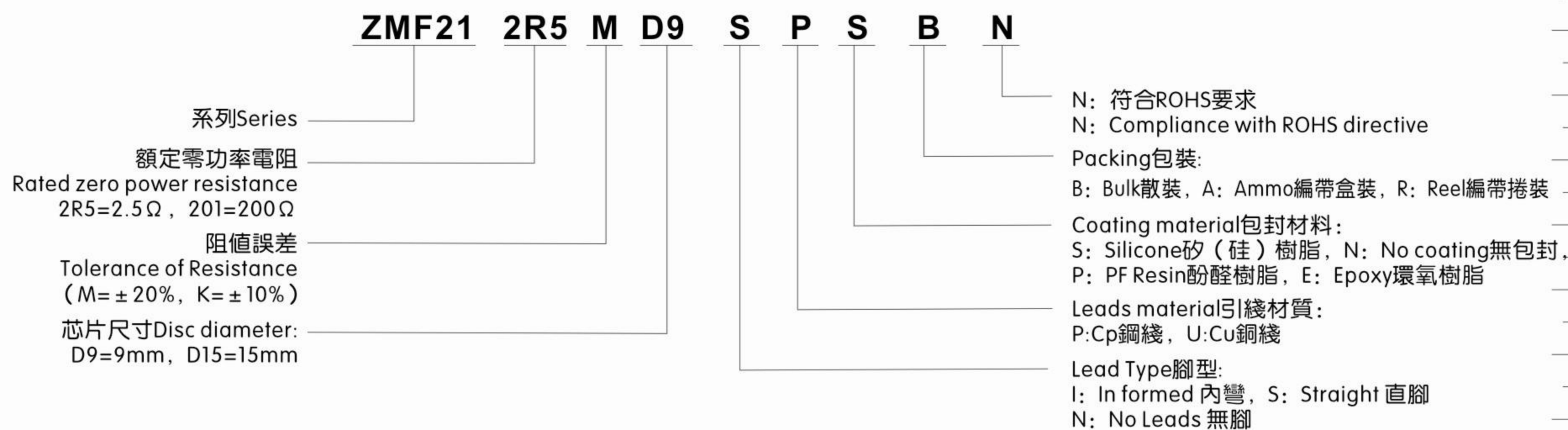
NTC THERMISTORS 負溫度系數熱敏電阻器

用于抑制浪涌電流 -For Limiting of Inrush Current

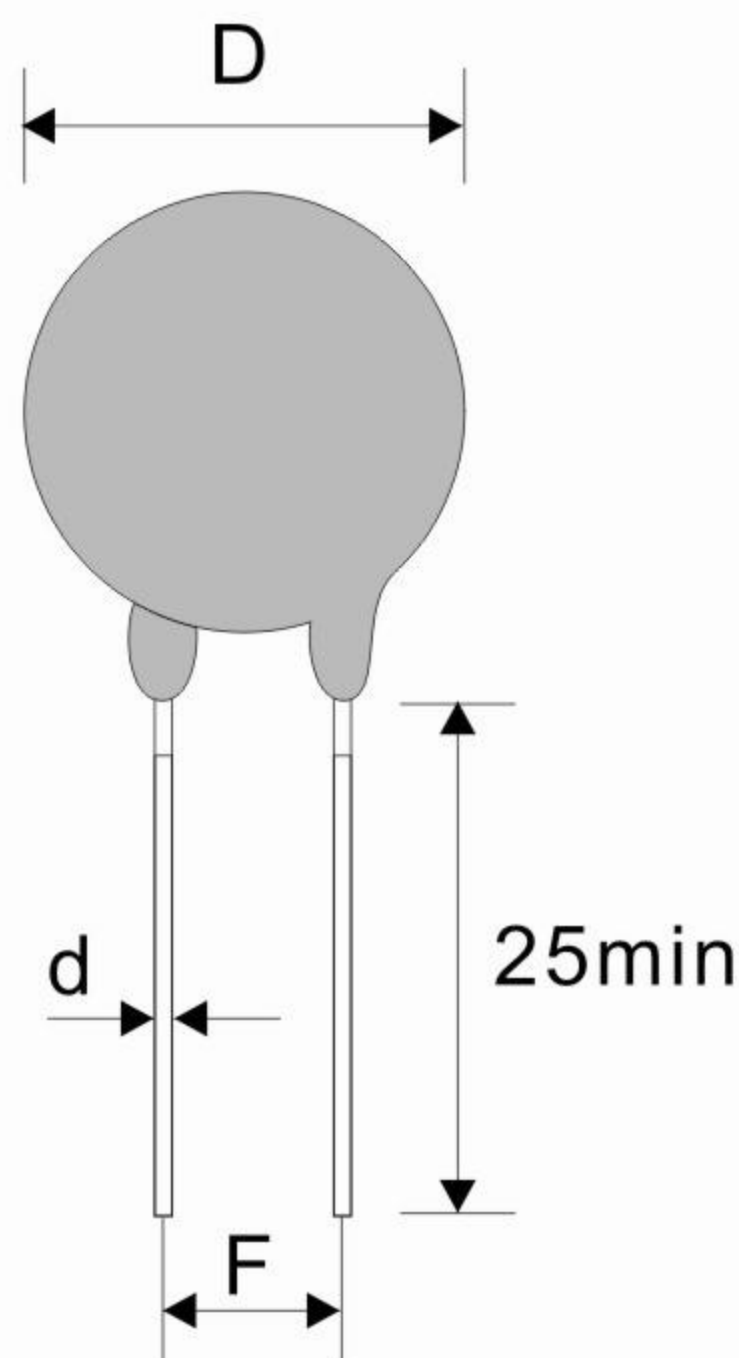
產品特點FEATURES

- ZMF21 系列NTC熱敏電阻器主要用于抑制各類電源、電子鎮流器/節能燈等電源回路和彩色顯像管、加熱器、燈絲等電路開機瞬間產生的浪涌電流。
- ZMF21系列產品為徑向引綫樹脂塗裝型，體積小功率大、制浪涌電流強、反應速度快、產品使用壽命長、可靠性高等特點。NTC熱敏電阻材料常數（即B值） β 越大，殘餘電阻 R_R 越小，則溫升越低。NTC熱敏電阻熱容量越大，抑制浪涌電流的能力越強。熱容量與熱時間常數 τ 和熱耗散系數 δ 之乘積成正比。
- ZMF21系列產品主要應用在開關電源、UPS電源、電子節能燈、電子鎮流器、電源綫路等，應用範圍廣泛。
- ZMF21 series NTC thermistors are used for limiting the Inrush Current in the power supply loop of every kinds of power supply,ballast/CFL etc. And the heating loop of CRT of color TV/monitor,heater,filament etc.
- The ZMF21 series NTC thermistors is the radial leads resin coating type products,it has the characteristic of small bulk,high power,strong limiting of inrush current,quick response,long life,high reliability,etc.The temperature is decreased while the Material Consistent(B) of NTC thermistors is increasing and the Remain Resistance is decreasing.The higher is the Thermal Capacity,the stronger is the capability of limiting the Inrush Current.It is direct proportion to the product of the Thermal Time Constant(τ) and Thermal Dissipation Constant(δ).
- The ZMF21 series NTC thermistors has so wide application area,which is mainly used in Switching Power Supply,UPS Power Supply,CFL,Ballast, Circuitry of Power Supply,etc.

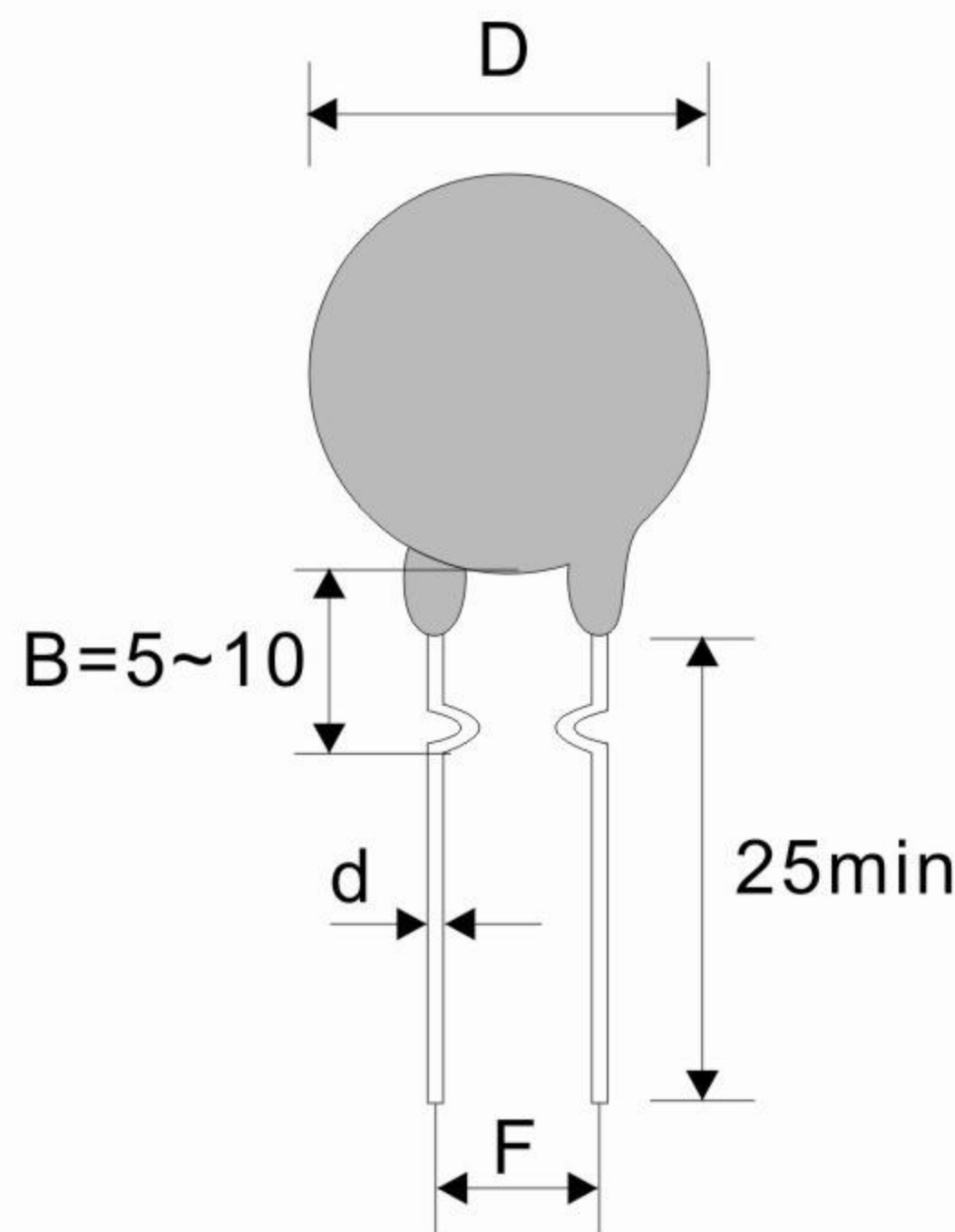
HOW TO ORDER



外形尺寸 Dimensions



Straight
直腳



In-formed
內彎

規格 Specifications

工作溫度 Operating Temperature : -55°C ~ +200°C

No. 序號	Rated zero-power resistance 額定 零功率電阻 RN(Ω)	Max.Steady State Current 最大 穩態電流 Imax(A)	Over Current Withstanding 耐電流能力 Ib(A)	Remain. Resistance 殘餘電阻 RR(Ω)	Thermal Dissipation Constant 熱耗散系數 δ (mW/°C)	Thermal Time Constant 熱時間常數 τ (Sec)	B Value B值	Marking 標志	Dimensions 外形尺寸 (mm)			
									Dmax	Tmax	d ±0.1	F ±1.0
01	5±20%	1	2	0.353	6	20	2200	5D-5	6.5	5	0.5 (0.6)	5
02	10±20%	0.7	1.4	0.771	6	20	2600	10D-5				
03	15±20%	0.6	1.2	0.90	6	20	3000	15D-5				
04	22±20%	0.6	1.2	0.90	6	20	3000	22D-5				
05	33±20%	0.5	1.0	1.20	6	20	3000	33D-5				
06	47±20%	0.4	0.8	1.50	6	20	3000	47D-5				
07	68±20%	0.4	0.8	2.10	6	18	3000	68D-5				
08	200±20%	0.1	0.2	6.259	6	18	3200	200D-5				
09	5±20%	2	4	0.283	10	30	2600	5D-7	8.5	5	0.5 (0.6)	5
10	8±20%	1	2	0.539	9	28	2600	8D-7				
11	10±20%	1	2	0.616	9	27	2800	10D-7				
12	12±20%	1	2	0.816	9	27	2800	12D-7				
13	16±20%	0.7	1.4	1.003	9	27	2800	16D-7				
14	22±20%	0.6	1.2	1.108	9	27	2800	22D-7				
15	33±20%	0.5	1.0	1.485	10	28	2800	33D-7				
16	200±20%	0.2	0.4	6.233	11	28	3200	200D-7				
17	3±20%	4	8	0.120	11	35	2600	3D-9	10.5	5.5	0.6 (0.8)	7.5 (5)
18	4±20%	3	6	0.190	11	35	2600	4D-9				
19	5±20%	3	6	0.210	11	34	2600	5D-9				
20	6±20%	2	4	0.315	11	34	2600	6D-9				
21	8±20%	2	4	0.400	11	32	2800	8D-9				
22	10±20%	2	4	0.458	11	32	2800	10D-9				
23	12±20%	1	2	0.652	11	32	2800	12D-9				
24	16±20%	1	2	0.802	11	31	2800	16D-9				
25	20±20%	1	2	0.864	11	30	3000	20D-9				
26	22±20%	1	2	0.950	11	30	3000	22D-9				
27	30±20%	1	2	1.022	11	30	3000	30D-9				
28	33±20%	1	2	1.124	11	30	3000	33D-9				
29	50±20%	1	2	1.252	11	30	3200	50D-9				
30	60±20%	0.8	1.6	1.502	11	30	3200	60D-9				
31	80±20%	0.8	1.6	2.010	11	30	3200	80D-9				
32	120±20%	0.8	1.6	3.015	11	30	3200	120D-9				
33	200±20%	0.5	1.0	5.007	11	32	3400	200D-9				
34	400±20%	0.2	0.4	9.852	11	32	3600	400D-9				
35	2.5±20%	5	10	0.095	13	43	2600	2.5D-11	12.5	5.5	0.6 (0.8)	7.5 (5)
36	3±20%	5	10	0.100	13	43	2600	3D-11				
37	4±20%	4	8	0.150	13	44	2600	4D-11				
38	5±20%	4	8	0.156	13	45	2800	5D-11				
39	6±20%	3	6	0.240	13	45	2800	6D-11				
40	8±20%	3	6	0.255	14	47	2800	8D-11				
41	10±20%	3	6	0.275	14	47	2800	10D-11				
42	12±20%	2	4	0.462	14	48	2800	12D-11				
43	16±20%	2	4	0.470	14	50	2800	16D-11				
44	20±20%	2	4	0.512	15	52	3000	20D-11				
45	22±20%	2	4	0.563	15	52	3000	22D-11				
46	30±20%	1.5	3	0.667	15	52	3000	30D-11				
47	33±20%	1.5	3	0.734	15	52	3000	33D-11				
48	50±20%	1.5	3	1.021	15	52	3200	50D-11				
49	60±20%	1.5	3	1.215	15	52	3200	60D-11				
50	80±20%	1.2	2.4	1.656	15	52	3200	80D-11				

規格 Specifications

工作溫度 Operating Temperature : -55°C ~ +200°C

No. 序號	Rated zero-power resistance 額定 零功率電阻 R _N (Ω)	Max.Steady State Current 最大 穩態電流 I _{max} (A)	Over Current Withstanding 耐電流能力 I _B (A)	Remain. Resistance 殘餘電阻 R _R (Ω)	Thermal Dissipation Constant 熱耗散系數 δ (mW/°C)	Thermal Time Constant 熱時間常數 τ (Sec)	B Value B值	Marking 標志	Dimensions 外形尺寸 (mm)			
									Dmax	Tmax	d ±0.1	F ±1.0
51	1.3±20%	7	14	0.062	13	60	2400	1.3D-13	14.5	6	0.8 (1.0)	7.5
52	1.5±20%	7	14	0.073	13	60	2600	1.5D-13				
53	2.5±20%	6	12	0.088	13	60	2600	2.5D-13				
54	3±20%	6	12	0.092	14	60	2600	3D-13				
55	4±20%	5	10	0.120	15	67	2800	4D-13				
56	5±20%	5	10	0.125	15	68	2800	5D-13				
57	6±20%	4	8	0.170	15	65	2800	6D-13				
58	7±20%	4	8	0.188	15	65	3000	7D-13				
59	8±20%	4	8	0.194	15	60	3000	8D-13				
60	10±20%	4	8	0.206	15	65	3000	10D-13				
61	12±20%	3	6	0.316	16	65	3200	12D-13				
62	15±20%	3	6	0.335	16	60	3200	15D-13				
63	16±20%	3	6	0.338	16	60	3200	16D-13				
64	20±20%	3	6	0.372	16	65	3200	20D-13				
65	30±20%	2.5	5	0.517	16	65	3200	30D-13				
66	47±20%	2	4	0.810	17	65	3200	47D-13				
67	120±20%	1.5	3	2.124	16	65	3400	120D-13				
68	1.3±20%	8	16	0.048	18	68	2800	1.3D-15	16.5	6	0.8 (1.0)	7.5 (10)
69	1.5±20%	8	16	0.052	19	69	2800	1.5D-15				
70	3±20%	7	14	0.075	18	76	2900	3D-15				
71	5±20%	6	12	0.112	20	76	3000	5D-15				
72	6±20%	5	10	0.155	20	80	3000	6D-15				
73	7±20%	5	10	0.173	20	80	3000	7D-15				
74	8±20%	5	10	0.178	20	80	3000	8D-15				
75	10±20%	5	10	0.180	20	75	3200	10D-15				
76	12±20%	4	8	0.250	20	75	3200	12D-15				
77	15±20%	4	8	0.268	21	85	3200	15D-15				
78	16±20%	4	8	0.276	21	70	3200	16D-15				
79	20±20%	4	8	0.288	17	86	3200	20D-15				
80	30±20%	3.5	7	0.438	18	75	3200	30D-15				
81	47±20%	3	6	0.680	21	86	3200	47D-15				
82	120±20%	2.5	5	1.652	22	87	3400	120D-15				
83	0.7±20%	12	24	0.018	25	89	2600	0.7D-20	21.5	7	0.8 (1.0)	7.5 (10)
84	1.3±20%	9	18	0.037	24	88	2600	1.3D-20				
85	3±20%	8	16	0.055	24	88	2800	3D-20				
86	5±20%	7	14	0.087	23	87	3000	5D-20				
87	6±20%	6	12	0.113	25	103	3000	6D-20				
88	8±20%	6	12	0.142	25	105	3000	8D-20				
89	10±20%	6	12	0.162	24	102	3200	10D-20				
90	12±20%	5	10	0.195	24	100	3200	12D-20				
91	16±20%	5	10	0.212	25	100	3200	16D-20				
92	0.7±20%	13	26	0.014	30	120	2800	0.7D-25	26.5	8	0.8 (1.0)	10
93	1.5±20%	10	20	0.027	30	121	2800	1.3D-25				
94	3±20%	9	18	0.044	32	124	3000	3D-25				
95	5±20%	8	16	0.070	32	125	3000	5D-25				
96	8±20%	7	14	0.114	33	125	3200	8D-25				
97	10±20%	7	14	0.130	32	127	3200	10D-25				
98	12±20%	6	12	0.156	32	126	3200	12D-25				
99	16±20%	6	12	0.160	35	126	3200	16D-25				