

NTC Surge Protectors / Inrush Current Limiters

Thermistors

SP 系列

ROHS series 



Part Number Code.

Example :

$\frac{N}{(1)}$ $\frac{20}{(2)}$ $\frac{SP}{(3)}$ $\frac{005}{(4)}$ $\frac{\square}{(5)}$ - $\frac{5}{(6)}$ $\frac{\square\square}{(7)}$

(1) NTC. (Negative Temperature Coefficient)

(2) Nominal Diameter :

08	:	8mm	10	:	10mm
13	:	13mm	15	:	15mm
20	:	20mm			

(3) SP : Surge Protection

(4) Resistance of 25°C

0R7	:	0.7Ω	1R3	:	1.3Ω
2R5	:	2.5Ω	003~008	:	3~8Ω
120	:	120Ω	010~080	:	0~80Ω

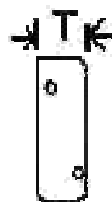
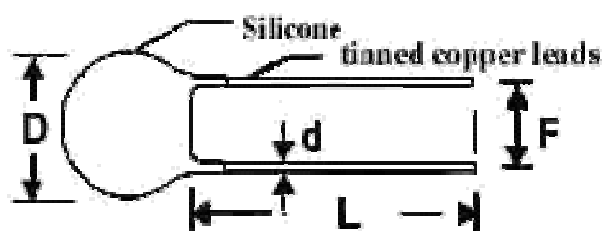
(5) Tolerance of Resistance

L	:	±15%
M	:	±20%

(6) Lead free(ROHS)

(7) Forming Type (Kink)

DIMENSION



FORMING SPECIFICATIONS

Disc Φ	Dmax	Lmin	d	F	Tmax
8	9.5	25	0.8±0.02	5.0±1.0	5
10	11.5	25	0.8±0.02	5.0±1.0	5
13	15	25	1.0±0.02	7.5±1.0	6
15	17	25	1.0±0.02	7.5±1.0	6
20	22	25	1.0±0.02	7.5±1.0	6
25	27	25	1.0±0.02	7.5±1.0	6

unit : mm

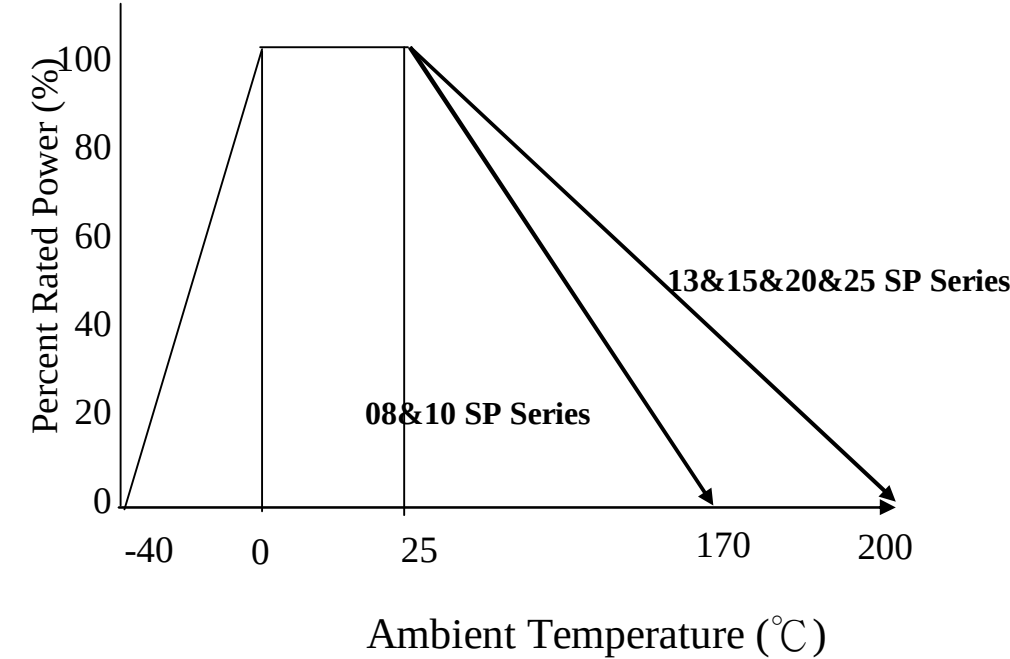
SPECIFICATIONS

Nominal Diameter(mm)	Part No.	Zero power Resistance at 25°C (Ohms)	Max Steady State Current(Amps)	Thermal Time Constant(S ec.)	Thermal Dissipation Constant(mW/°C)	Max. Steady Power (w)	Operating temperature range (°C)	UL	VDE
8	08SP003 - 5	3	3	48	12	1.7	-40~+170		
	08SP004 - 5	4	3	45					
	08SP005 - 5	5	3	48				.	.
	08SP006 - 5	6	3	45				.	.
	08SP008 - 5	8	3	45				.	.
	08SP010 - 5	10	3	45				.	.
	08SP012 - 5	12	3	45					
	08SP015 - 5	15	2	45				.	.
	08SP020 - 5	20	2	45					
	08SP022 - 5	22	2	45					
	08SP033 - 5	33	2	45					
10	N10SP001 - 5	1	5	65	16	2.3	-40~+170		
	N10SP1R3 - 5	1.3	5	63					
	N10SP1R5 - 5	1.5	5	60					
	N10SP002 - 5	2	5	55					
	N10SP2R5 - 5	2.5	5	58				.	.
	N10SP003 - 5	3	5	60				.	.
	N10SP004 - 5	4	4	62				.	.
	N10SP005 - 5	5	4	58				.	.
	N10SP006 - 5	6	3	59				.	.
	N10SP007 - 5	7	3	60				.	.
	N10SP008 - 5	8	3	59				.	.
	N10SP010 - 5	10	3	56				.	.
	N10SP012 - 5	12	2	58				.	.
	N10SP015 - 5	15	2	62					
	N10SP016 - 5	16	2	62				.	.
	N10SP020 - 5	20	2	60				.	.
	N10SP025 - 5	25	2	56				.	.
	N10SP050 - 5	50	2	58				.	.
	N10SP080 - 5	80	1	55				.	.
	N10SP120 - 5	120	1	60				.	.

13	N13SP1R3 - 5	1.3	7	91	17	3.0	-40~+200		
	N13SP1R5 - 5	1.5	7	92					
	N13SP2R5 - 5	2.5	6	85					
	N13SP003 - 5	3	5	93					
	N13SP004 - 5	4	5	91					
	N13SP005 - 5	5	5	93				.	.
	N13SP006 - 5	6	3	59					
	N13SP007 - 5	7	3	60					
	N13SP008 - 5	8	4	91				.	.
	N13SP010 - 5	10	4	87				.	.
	N13SP012 - 5	12	4	82					
	N13SP016 - 5	16	3	87				.	.
	N13SP018 - 5	18	3	92					
	N13SP020 - 5	20	3	93					
15	N15SP1R3 - 5	1.3	8	107	20	3.5	-40~+200	.	.
	N15SP1R5 - 5	1.5	8	107				.	.
	N15SP2R5 - 5	2.5	8	104				.	.
	N15SP003 - 5	3	7	105				.	.
	N15SP004 - 5	4	6	104				.	.
	N15SP005 - 5	5	6	110				.	.
	N15SP006 - 5	6	5	102				.	.
	N15SP007 - 5	7	5	99				.	.
	N15SP008 - 5	8	5	103				.	.
	N15SP010 - 5	10	5	103				.	.
	N15SP012 - 5	12	4	102				.	.
	N15SP015 - 5	15	4	101				.	.
	N15SP016 - 5	16	4	102				.	.
	N15SP020 - 5	20	4	101				.	.
	N15SP022 - 5	22	4	107					
	N15SP025 - 5	25	3	100				.	.
	N15SP040 - 5	40	3	101				.	.
	N15SP047 - 5	47	3	102				.	.
	N15SP055 - 5	55	3	102					
	N15SP080 - 5	80	2.5	102				.	.
	N15SP120 - 5	120	2	104				.	.
20	N20SP0R7 - 5	0.7	12	145	23	4.0	-40~+200	.	
	N20SP001 - 5	1	10	160					
	N20SP1R3 - 5	1.3	8	144				.	
	N20SP002 - 5	2	8	140					
	N20SP2R5 - 5	2.5	8	120					
	N20SP004 - 5	4	8	135					
	N20SP005 - 5	5	7	144				.	
	N20SP006 - 5	6	6	136				.	
	N20SP007 - 5	7	6	132					
	N20SP010 - 5	10	6	135				.	
	N20SP012 - 5	12	5	132				.	
	N20SP020 - 5	20	6	127					
	N20SP033 - 5	33	3	128					
	N20SP120 - 5	120	2	142				.	

25	N25SP001 - 5	1	15	150	30	5	-40~+200		
	N25SP1R5 - 5	1.5	15	150					
	N25SP002 - 5	2	15	150					
	N25SP2R5 - 5	2.5	15	150					
	N25SP003 - 5	3	15	150					
	N25SP004 - 5	4	14	150					
	N25SP4R7 - 5	4.7	13	150					
	N25SP005 - 5	5	12	150					
	N25SP6R8 - 5	6.8	10.5	150					
	N25SP007 - 5	7	10	150					
	N25SP008 - 5	8	9	150					
	N25SP010 - 5	10	8	150					
	N25SP012 - 5	12	7.5	150					
	N25SP015 - 5	15	6.5	150					
	N25SP018 - 5	18	5.5	150					
	N25SP020 - 5	20	5	150					
	N25S9120 - 5	120	3	150					

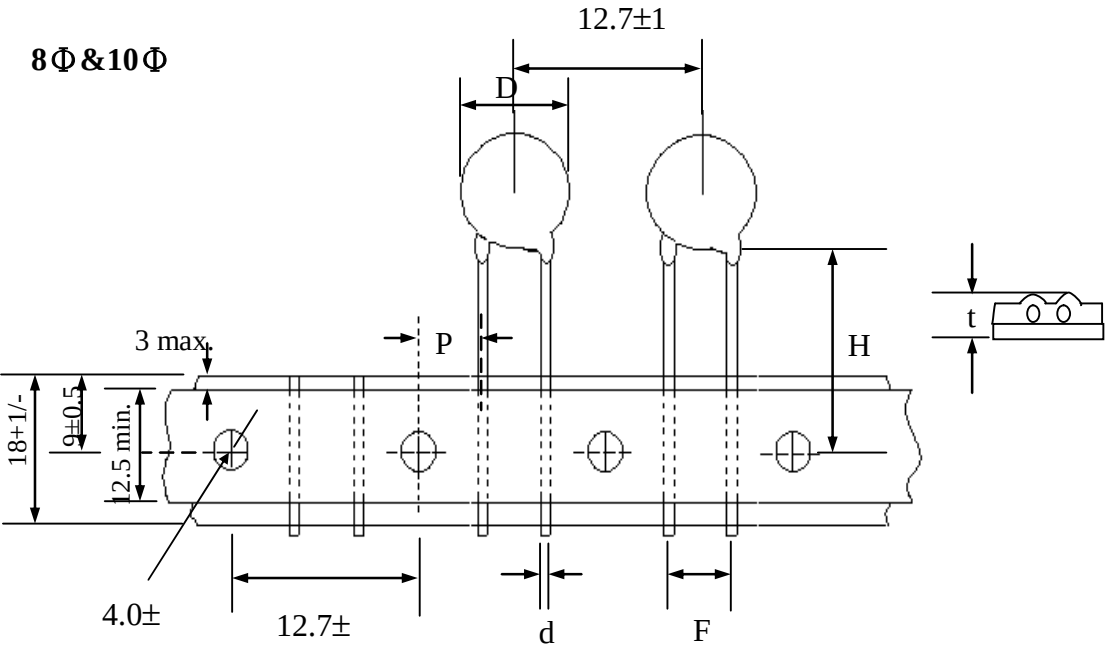
Maximum. power rating(Pmax)



Packaging

◎Taping Specifica

8Φ & 10Φ



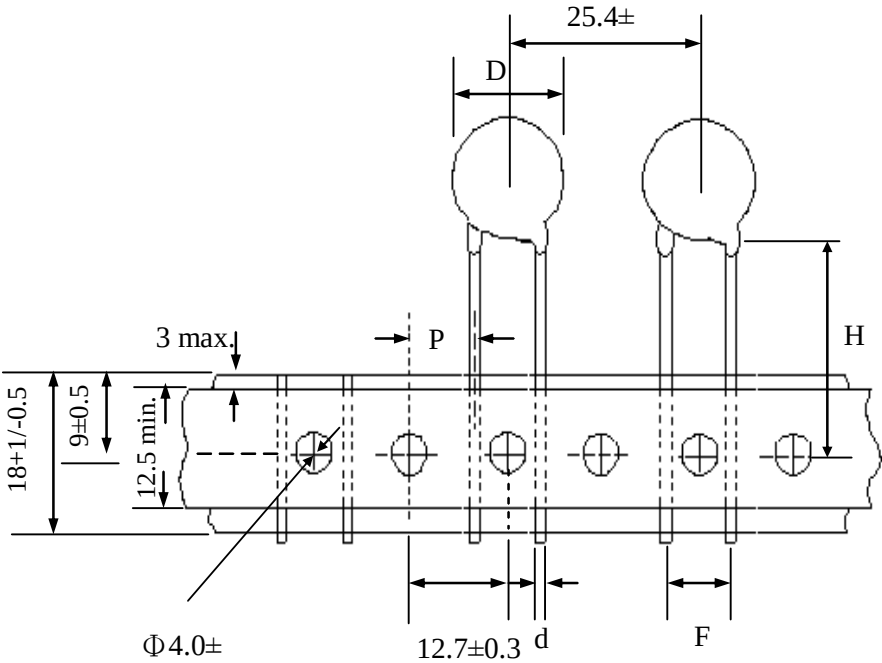
TA SERIES

Φ	Dmax.	F±1	Tmax.	d±0.02	P1±1	H±1.5	t	A	B	C
8	9.5	5.0	5.0	0.8	3.85	18	1.7	330	260	50
10	11.5	5.0	5.0	0.8	3.85	18	1.7	330	260	50

TR SERIES

Φ	Dmax.	F±1	Tmax.	d±0.02	P1±1	H0±1	t	A±2	B±2	C±5	E
8	9.5	5.0	5.0	0.8	3.85	18	1.7	31	76	340	55
10	11.5	5.0	5.0	0.8	3.85	18	1.7	31	76	340	55

13Φ & 15Φ & 20Φ

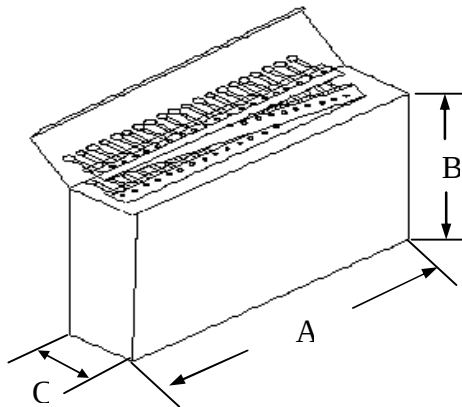


TA SERIES

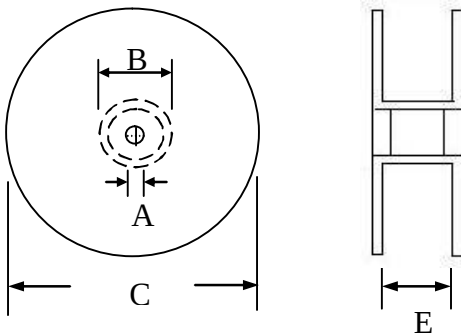
Φ	Dmax.	F $\pm$ 1	Tmax.	d $\pm$ 0.02	P1 $\pm$ 1	H $\pm$ 1.5	t	A	B	C
13	15.0	7.5	6.0	1.00	8.95	18	1.9	330	260	50
15	17.0	7.5	6.0	1.00	8.95	18	1.9	330	260	50
20	22.0	7.5	6.0	1.00	8.95	18	1.9	330	260	50

TR SERIES

Φ	Dmax.	F $\pm$ 1	Tmax.	d $\pm$ 0.02	P1 $\pm$ 1	H0 $\pm$ 1	t	A $\pm$ 2	B $\pm$ 2	C $\pm$ 5	E
13	15.0	7.5	6.0	1.00	8.95	18	1.9	31	76	340	55
15	17.0	7.5	6.0	1.00	8.95	18	1.9	31	76	340	55
20	22.0	7.5	6.0	1.00	8.95	18	1.9	31	76	340	55

Quantity**TA SERIES****AMMO Packing**

Disc size/mm	Quantity(PCS/BOX)
8 Φ	1000
10 Φ	1000
13 Φ	500
15 Φ	500
20 Φ	500

AMMO**TR SERIES****REEL Packing**

Disc size/mm	Quantity(PCS/REEL)
8 Φ	1000
10 Φ	1000
13 Φ	500
15 Φ	500
20 Φ	500

REEL**BULK Packing**

Disc size/mm	Quantity(PCS/Bag)
8 Φ	200
10 Φ	200
13 Φ	100
15 Φ	100
20 Φ	50
25 Φ	50