NP series

Features

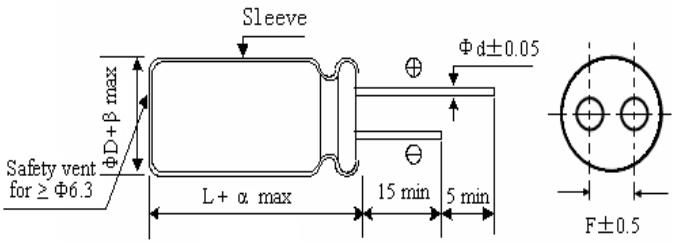
- Standard Nonpolar, series for entertainment electronics, 2000 hours at 85℃.
- RoHS Compliant .

Specifications

Item	Performance Characteristics
Temperature Range	-40~+85℃
Rated Voltage Range	6.3~100Vdc
Capacitance Range	1.0~6800μF
Capacitance Tolerance	±20%（120Hz，+20℃）
Leakage Current（+20℃,max.）	I≤0.03CV 或 3（μA） After 5 minutes, whichever is greater measured with rated working voltage applied
Dissipation Factor（tgδ）120Hz，+20℃	Working Voltage(Vdc): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 D.F(%)max.: 26 / 24 / 22 / 20 / 16 / 14 / 12 / 10 For capacitance>1000μF , Add 2% per another 1000μF (120Hz，+20℃)
Low Temperature Characteristics（120Hz）	Impedance ratio max. Working Voltage(Vdc): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 Z-25℃/ Z+20℃: 4 / 3 / 2 / 2 / 2 / 2 / 2 / 2 Z-40℃/ Z+20℃: 10 / 8 / 6 / 5 / 4 / 4 / 3 / 3 For capacitance>1000μF , Add 0.5 per another 1000μF For Z-25℃/ Z+20℃,Add 1.0 per another 1000μF For Z-40℃/ Z+20℃
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2000 hours at 85℃(The polarity shall be reversed every 250 hours). Capacitance Change: ≤±20% of the initial value D.F.(tgδ）: ≤200% of the initial specified value Leakage Current: ≤The initial specified value
Shelf Life	After storing the capacitors under no load at 85℃ for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20℃, they shall meet the specified values for the load life characteristics listed above.
Others	JISC-5101(IEC 60384)

Diagram of Dimensions

Unit: mm



Frequency Multipliers

μF \ Hz	50	120	300	1K	10K~
<68	0.75	1.00	1.35	1.57	2.00
68~470	0.80	1.00	1.23	1.34	1.50
＞470	0.85	1.00	1.10	1.13	1.15

ΦD	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
α	(L< 20) + 1.5			(L≥20) + 2.0			
β	(D< 20) + 0.5			(D≥20) + 1.0			

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Standard Ratings

Voltage	6.3V		10V		16V		25V	
Cap(μF)	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7							5×11	26
10					5×11	42	5×11	42
22			5×11	57	5×11	57	6.3×11	65
33	5×11	64	5×11	64	5×11	70	6.3×11	80
47	5×11	76	5×11	76	6.3×11	95	6.3×11	95
100	6.3×11	125	6.3×11	125	8×12	160	8×12	160
220	8×12	215	8×12	215	10×12	275	10×17	305
330	8×12	265	10×17	345	10×17	375	13×20	450
470	10×12	370	10×17	410	10×20	485	13×20	540
1000	10×20	650	13×20	720	13×25	855	16×25	950
2200	13×25	1160	16×25	1280	16×30	1510	18×35	1620
3300	16×25	1570	16×30	1690	18×35	1980		
4700	16×30	2020	18×35	2160				
6800	18×35	2600						

Voltage	35V		50V		63V		100V	
Cap(μF)	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
1.0			5×11	17	5×11	18	5×11	21
2.2			5×11	25	5×11	27	6.3×11	34
3.3			5×11	27	5×11	28	6.3×11	39
4.7	5×11	34	5×11	34	6.3×11	34	6.3×11	47
10	5×11	43	6.3×11	52	6.3×11	57	8×12	71
22	6.3×11	73	8×12	89	8×12	95	10×17	135
33	8×12	100	8×12	105	10×12	135	13×20	220
47	8×12	120	10×12	150	10×17	180	13×20	240
68	10×12	150	10×17	198	10×20	265	13×25	320
100	10×17	230	10×20	265	13×20	320	16×25	425
220	13×20	410	13×25	480	16×25	575	18×35	720
330	13×20	505	16×25	650	16×30	655		
470	13×25	655	16×30	835	18×35	965		
1000	16×30	1140						

Max Allowable Ripple Current (mA,rms) at 85℃ 120Hz,Case Size ΦD×L(mm).

Above size is the standard size for our product. If you need special size please contact our sales offices.