NP Series Non-polarized 85℃

Features

- ◆ NP Series for crossover networks of high-pitched, mean and low-pitched sounds in high-fidelity sound systems.
- ◆ The series offers excellent frequency characteristics and minimal capacitance deviation with frequency.
- ◆ RoHS Compliant

Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40 to +85℃	-25 to +85℃
Rated Voltage Range	6.3 to 100 VDC	160 to 250 VDC
Capacitance Range	0.47 to 3300 μF	0.47 to 47 μF
Capacitance Tolerance	±20%(120Hz,+20℃)	
Leakage Current (+20℃,max.)	I≦0.03 CV or 3 (μA) After 1 minute whichever is greater measured with rated working voltage applied.	

Dissipation Factor (tan δ ，at 20℃，120Hz)

Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	160	200	250
D.F. (%)max.	25	25	20	15	15	13	10	10	15	15	20

For Capacitance ＞1000 uF, add 2% per another 1000 uF

Low Temperature Characteristics (at 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℃	8	6	4	4	3	3	3	3

Working Voltage(VDC)	160	200	250
Z-25℃／Z+20℃	2	2	3

For Capacitance＞1000 uF, add 0.5 per another 1000 uF for -25℃／+20℃
add 1 per another 1000 uF for -40℃／+20℃

Endurance

Test conditions
Duration time : 2000Hrs
Ambient temperature : +85℃
Applied voltage : Rated DC working voltage
Each 250 hours, we will reserve the terminal and test the characteristics.
After test requirements at +20℃
Capacitance change : ≦ ±20% of the initial measured value
Dissipation factor : ≦ 150% of the initial specified value
Leakage current : ≦ The initial specified value

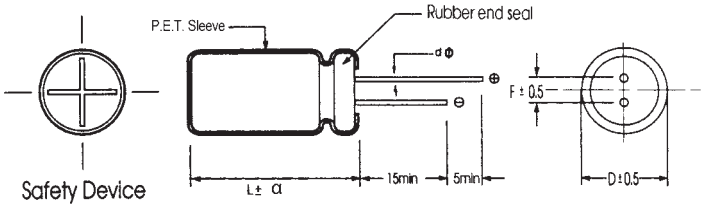
Shelf Life

Test conditions
Duration time : 1000Hrs
Ambient temperature : +85℃
Applied voltage : None
After test requirements at +20℃: Same limits as Endurance.
Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.

Multiplier for Ripple Current vs. Frequency

CAP(uF)\Frequency(Hz)	50(60)	120	400	1K	10K	50K~100K
CAP≦10	0.8	1	1.30	1.45	1.65	1.70
10＜CAP≦100	0.8	1	1.23	1.36	1.48	1.53
100＜CAP≦1000	0.8	1	1.16	1.25	1.35	1.38
1000＜CAP	0.8	1	1.11	1.17	1.25	1.28

Diagram of Dimensions:(unit:mm)



DΦ	5	6.3	8		10	13	16	18
F	2.0	2.5	3.5		5.0	5.0	7.5	7.5
dΦ	0.5		L＜20	L≧20	0.6		0.8	
			0.5	0.6				

α	D＜16	D＝16		D＝18		D＞18
		L:25~35.5	L＜25 and L≧40	L:25~31.5	L＜25 and L≧35.5	
	1.5	1.5	2.0	1.5	2.0	2.0

Non-polarized type

Case Size

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/85℃ /120Hz)
6.3	100	6.3x11	120
6.3	220	6.3x11	175
6.3	330	8x11.5	250
6.3	470	10x12.5	330
6.3	1000	10x20	650
6.3	2200	13x20	850
6.3	3300	16x25	970
10	22	5x11	55
10	33	5x11	66
10	47	5x11	82
10	100	6.3x11	125
10	220	8x11.5	205
10	330	10x12.5	270
10	330	10x16	300
10	470	10x16	388
10	1000	13x20	700
10	2200	16x25	1000
10	3300	18x35.5	1300
16	22	5x11	57
16	33	5x11	75
16	47	6.3x11	97
16	100	8x11.5	162
16	220	10x12.5	270
16	330	10x16	350
16	470	10x20	455
16	1000	13x20	730
16	1000	13x25	800
16	2200	16x31.5	1100
25	10	5x11	34
25	22	6.3x11	65
25	33	6.3x11	86
25	47	6.3x11	100
25	100	8x11.5	175
25	220	10x12.5	295
25	220	10x16	310
25	330	10x20	440
25	470	13x20	530
35	10	5x11	43
35	22	6.3x11	75
35	33	8x11.5	105
35	47	8x11.5	120
35	100	10x12.5	210
35	100	10x16	230
35	220	10x20	400
35	330	13x20	495
35	470	13x25	655
50	0.47	5x11	11
50	1	5x11	17
50	2.2	5x11	25
50	3.3	5x11	27
50	4.7	5x11	34
50	10	6.3x11	52
50	22	8x11.5	92
50	33	8x11.5	109

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/85℃ /120Hz)
50	47	10x12.5	150
50	100	10x20	265
50	220	13x20	475
50	330	13x25	560
63	0.47	5x11	12
63	1	5x11	18
63	2.2	5x11	26
63	3.3	6.3x11	28
63	4.7	6.3x11	34
63	10	6.3x11	57
63	22	8x11.5	97
63	33	10x12.5	140
63	47	10x16	180
63	100	13x20	320
63	220	13x25	510
100	0.47	5x11	14
100	1	5x11	21
100	2.2	5x11	34
100	3.3	6.3x11	39
100	4.7	8x11.5	47
100	10	8x11.5	71
100	22	10x16	140
100	33	10x16	190
100	33	10x20	220
100	47	10x20	195
100	47	13x20	240
100	100	16x25	425
100	220	16x25	520
100	220	16x31.5	550
160	0.47	5x11	17
160	1	6.3x11	25
160	2.2	8x11.5	38
160	3.3	8x11.5	43
160	4.7	10x12.5	52
160	10	10x16	89
160	22	13x20	155
160	33	13x20	230
160	47	13x25	250
200	0.47	6.3x11	21
200	1	8x11.5	28
200	2.2	8x11.5	42
200	3.3	10x12.5	46
200	4.7	10x16	56
200	10	10x20	95
200	22	13x20	180
200	33	13x25	250
250	0.47	6.3x11	28
250	1	8x11.5	32
250	2.2	10x12.5	48
250	3.3	10x16	57
250	4.7	10x20	88
250	10	10x20	130
250	22	13x25	224
250	33	16x25	305