



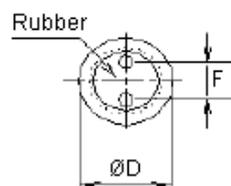
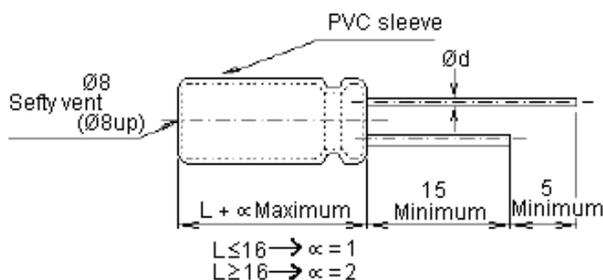
Features:

- NP series capacitors are suitable for crossover network for HI-FI equipments and speakers, etc
- Have excellent frequency characteristic and small deviation of capacitance

Specifications:

Item	Performance															
Operating Temperature Range	-40°C to +105°C															
Rated Working Voltage Range	10V DC to 250V DC															
Nominal Capacitance Range	0.47 to 2,200µF															
Capacitance Tolerance	±20% (at+20°C ,120Hz)															
Leakage Current	≤0.03CV or 3(µA) after five minutes															
Dissipation Factor (tanδ) (120Hz \ +20°C)	<table border="1"> <tr> <td>Working voltage (V)</td> <td>16</td> <td>35</td> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ maximum</td> <td>0.2</td> <td>0.15</td> <td>0.1</td> <td>0.12</td> </tr> </table>	Working voltage (V)	16	35	63	100	tan δ maximum	0.2	0.15	0.1	0.12					
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(at 120 Hz) Characteristics at low temperature (stability at 120 Hz)	<table border="1"> <tr> <td>Working voltage (V)</td> <td>16</td> <td>35</td> <td>63</td> <td>100</td> </tr> <tr> <td>-25°C / +20°C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>-40°C / +20°C</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Working voltage (V)	16	35	63	100	-25°C / +20°C	2	2	2	2	-40°C / +20°C	4	3	3	3
	Working voltage (V)	16	35	63	100											
	-25°C / +20°C	2	2	2	2											
-40°C / +20°C	4	3	3	3												
High Temperature Loading	After 2000hrs. application of DC rated working voltage at +85°C, The capacitor shall meet the following limits: Post test requirements at +20°C.															
	<table border="1"> <tr> <td>Leakage current</td> <td>≤ the Initial specified value</td> </tr> <tr> <td>Capacitance change</td> <td>≤ ±20% of initial measured value</td> </tr> <tr> <td>Dissipation Factor (tanδ)</td> <td>≤ 150% of initial specified value</td> </tr> </table>	Leakage current	≤ the Initial specified value	Capacitance change	≤ ±20% of initial measured value	Dissipation Factor (tanδ)	≤ 150% of initial specified value									
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Shelf Life	After storage for 500hrs. at +105°C with no voltage applied. Post test requirements at +20°C Same limits as high temperature loading.															

Diagram of Dimensions



DØ (+ 0.5 Maximum)	5	6.3	8	10	13	16
F (± 0.5)	2	2.5	3.5	5	5	7.5
dØ (± 0.02)	0.5	0.5	0.6	0.6	0.6	0.8

Dimensions : Millimetres

Case Size Table

Ø D × L (mm)

W.V. (SV) µF	16 (20)	35 (44)	63 (79)	100 (125)
0.47	5 × 11	5 × 11	5 × 11	5 × 11
1				6.3 × 11
2.2				
3.3				
4.7			6.3 × 11	
10				
22		6.3 × 11	8 × 11.5	10 × 16
33		8 × 11.5	10 × 12.5	13 × 21
47	6.3 × 11		10 × 16	
100	8 × 11.5	10 × 16	13 × 21	16 × 26
220	10 × 12.5	13 × 21	16 × 26	-
330	10 × 16		-	-
470	10 × 20	13 × 26	-	-
1,000	13 × 26	-	-	-
2,200	-	-	-	-

Permissible Ripple Current

Maximum ripple current: mA (rms) (at 85°C 120 Hz)

WW (SV) µF	16 (20)	35 (44)	63 (79)	100 (125)
0.47	10	10	13	15
1	15	15	19	19
2.2	20	20	25	25
3.3	30	30	30	35
4.7			35	40
10	40	40	55	70
22	55	70	90	135
33	70	100	135	220
47	95	120	180	240
100	160	230	320	425
220	275	410	575	-
330	375	505	-	-
470	485	655	-	-
1,000	855	-	-	-
2,200	-	-	-	-

Part Number Table

Description	Part Number
Capacitor, N/P, 1µF, 16V	MCNP16V105M5X11
Capacitor, N/P, 4.7µF, 16V	MCNP16V475M5X11
Capacitor, N/P, 10µF, 16V	MCNP16V106M5X11
Capacitor, N/P, 22µF, 16V	MCNP16V226M5X11
Capacitor, N/P, 47µF, 16V	MCNP16V476M6.3X11
Capacitor, N/P, 100µF, 16V	MCNP16V107M8X11.5
Capacitor, N/P, 220µF, 16V	MCNP16V227M10X12.5
Capacitor, N/P, 470µF, 16V	MCNP16V477M10X20
Capacitor, N/P, 1,000µF, 16V	MCNP16V108M13X25
Capacitor, N/P, 1µF, 35V	MCNP35V105M5X11
Capacitor, N/P, 2.2µF, 35V	MCNP35V225M5X11
Capacitor, N/P, 4.7 UF, 35V	MCNP35V475M5X11
Capacitor, N/P, 10µF, 35V	MCNP35V106M5X11
Capacitor, N/P, 22µF, 35V	MCNP35V226M6.3X11
Capacitor, N/P, 47µF, 35V	MCNP35V476M8X11.5
Capacitor, N/P, 100µF, 35V	MCNP35V107M10X16
Capacitor, N/P, 220µF, 35V	MCNP35V227M13X20
Capacitor, N/P, 470 UF, 35V	MCNP35V477M13X25
Capacitor, N/P, 0.47µF, 63V	MCNP63V474M5X11
Capacitor, N/P, 1µF, 63V	MCNP63V105M5X11
Capacitor, N/P, 2.2µF, 63V	MCNP63V225M5X11
Capacitor, N/P, 4.7µF, 63V	MCNP63V475M6.3X11
Capacitor, N/P, 10µF, 63V	MCNP63V106M6.3X11
Capacitor, N/P, 22µF, 63V	MCNP63V226M8X11.5
Capacitor, N/P, 47µF, 63V	MCNP63V476M10X16
Capacitor, N/P, 100 UF, 63V	MCNP63V107M13X20
Capacitor, N/P, 220 UF, 63V	MCNP63V227M16X25
Capacitor, N/P, 1µF, 100V	MCNP100V105M5X11
Capacitor, N/P, 2.2µF, 100V	MCNP100V225M6.3X11
Capacitor, N/P, 3.3µF, 100V	MCNP100V335M6.3X11
Capacitor, N/P, 4.7µF, 100V	MCNP100V475M6.3X11
Capacitor, N/P, 33µF, 100V	MCNP100V336M13X20
Capacitor, N/P, 47µF, 100V	MCNP100V476M13X20
Capacitor, N/P, 100µF, 100V	MCNP100V107M16X25

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