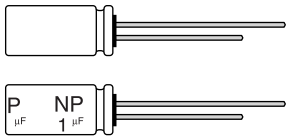
Sub-Miniature Non-Polar Radial Electrolytics MLNP Series

FEATURES

- 85°C, 1000 hours assured, non-polarized series with 7mm height
- Suitable for use in circuits which has a reversed or unknown polarity



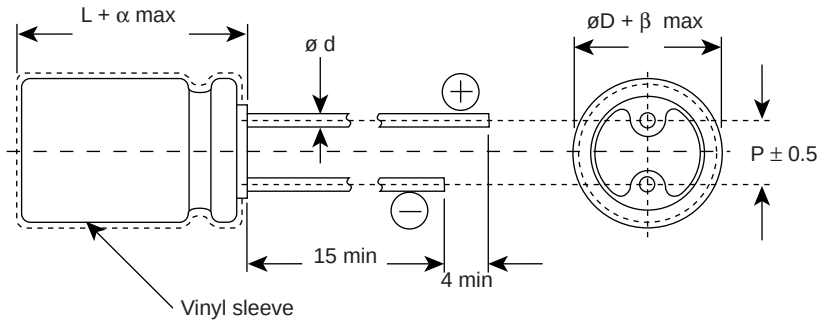
CHARACTERISTICS

Items	Perforance								
Operating Temperature Range	-40°C ~ +85°C								
Capacitance Tolerance	±20% (at 120Hz, 20°C)								
Leakage Current (at 20°C)	I = 0.05CV or 10 (μA) whichever is greater (after 2 minutes) Where: C = rated capacitance in μF. V = rated DC working voltage in V.								
Dissipation Factor (Tan δ at 120Hz, 20°C)	Rated voltage	4	6.3	10	16	25	35	50	50
	Tan δ (max)	0.35	0.24	0.20	0.16	0.16	0.14	0.12	0.12
Low Temperature Characteristics	Impedance ratio shall not exceed the values given in the table below.								
	Rated voltage		4	6.3	10	16	25	35	50	63
	Impedance Ratio	Z(-25°C)/Z(+20°C)	4	4	3	2	2	2	2	2
		Z(-40°C)/Z(+20°C)	10	10	8	6	4	3	3	3
Load Life Test (after application of the rated voltage at 85°C, the polarity inverted every 250hrs.)	Test Time		1000 Hrs							
	Capacitance Change		≤ ± 20%							
	Dissipation Factor		Less than 200% of specified value							
	Leakage Current		Within specified value							
	•The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 1000 hrs at 85°C.									
Shelf Life Test	Test Time		500Hrs							
	Capacitance Change		≤ ± 20%							
	Dissipation Factor		Less than 200% of specified value							
	Leakage Current		Within specified value							
	•The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hrs at 85°C without voltage applied.									
Standards	Satisfies Characteristic W of JIS C 5141									

PART NUMBERING SYSTEM

M L N P	5 0 V	2 2
Series	Voltage Actual Value	Capacitance (μF) Actual Value

DIMENSIONS AND PERMISSIBLE RIPPLE CURRENT



Lead Spacing and Diameter (mm)

φD	4	5	6.3	8
P	1.5	2.0	2.5	3.5
φd	0.45	0.50		
α	1.0			
β	0.5			

Dimensions: φD x L (mm); Ripple Current: mA/rms @ 120Hz, 85°C

V.DC / (µF)	Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)	
		φD x L	mA	φD x L	mA	φD x L	mA	φD x L	mA	φD x L	mA	φD x L	mA	φD x L	mA	φD x L	mA
0.1	OR1													4 x 7	2.1	4 x 7	2.6
0.22	R22													4 x 7	4.5	4 x 7	5
0.33	R33													4 x 7	5.6	4 x 7	6.1
0.47	R47													4 x 7	6.6	4 x 7	7.3
1	010													4 x 7	9.7	4 x 7	10
2.2	2R2											4 x 7	13	4 x 7	14	5 x 7	16
3.3	3R3									4 x 7	15	5 x 7	16	5 x 7	18	6.3 x 7	20
4.7	4R7							4 x 7	18	5 x 7	18	5 x 7	20	6.3 x 7	22	8 x 7	24
10	100					4 x 7	23	5 x 7	27	6.3 x 7	28	8 x 7	30				
22	220			5 x 7	40	5 x 7	40	6.3 x 7	45	8 x 7	52						
33	330	5 x 7	40	5 x 7	40	6.3 x 7	45	8 x 7	52								
47	470	6.3 x 7	45	6.3 x 7	49	8 x 7	55										
100	101	8 x 7	66														