



LNP Non-Polarized, 105°C



Features

- LNP 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.

Specifications

| Item | Performance Characteristics | | |
|---|--|-----------------------------------|--|
| Operating Temperature Range | -40 to +105°C | -25 to +105°C | |
| Rated voltage Range | 10 to 100 VDC | 160 to 250 VDC | |
| Capacitance Range | 0.47 to 1000 μF | | |
| Capacitance Tolerance | ±20%(120Hz, +20°C) | | |
| Leakage Current (+20°C, max.) | I ≤ 0.03 CV or 3(μA) After 1minute with rated working voltage applied.. | | |
| Dissipation Factor (tanδ) | Working Voltage (VDC) | 10 16 25 35 50 63 100 160 200 250 | |
| | D.F.(%)max | 25 20 16 15 14 10 10 20 20 20 | |
| (+20°C, at 120Hz) | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio max. | | |
| | Working Voltage (VDC) | 10 16 25 35 50 63 100 160 200 250 | |
| | Z (-25°C)/Z(+20°C) | 3 2 2 2 2 2 2 2 2 3 | |
| | Z (-40°C)/Z(+20°C) | 6 6 4 4 3 3 3 - - - | |
| For Capacitance Value 1000μF , add 0.5 per another 1000μF for -25°C/+20°C | | | |
| For Capacitance Value 1000μF , add 1 per another 1000μF for -40°C/+20°C | | | |
| Load Life | Test conditions | | |
| | Duration time : 5φ~6φ 1000Hrs D ≥ 8φ 2000Hrs Ambient temperature: +105°C Applied voltage: Rated DC working voltage After test requirements: at +20% Dissipation Factor: ≤ 150% of the initial specified value Leakage current: ≤ The initial specified value | | |
| Shelf Life | Test conditions | | |
| | Duration time : 1000Hrs Ambient temperature: +105°C Applied voltage: None After test requirements at +20°C: Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. | | |

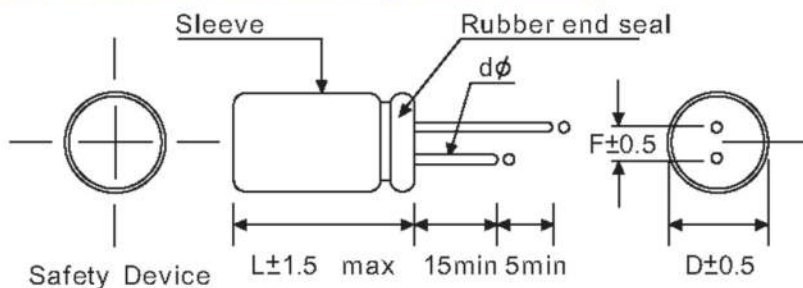
Multiplier for Ripple Current VS, Frequency

| CAP(μF)/Hz | | 50(60) | 120 | 400 | 1K | 10K | 50K-100K |
|------------|------------------|--------|-----|------|------|------|----------|
| Multiplier | CAP ≤ 10 | 0.8 | 1.0 | 1.30 | 1.45 | 1.65 | 1.70 |
| | 10 < CAP ≤ 100 | 0.8 | 1.0 | 1.23 | 1.36 | 1.48 | 1.53 |
| | 100 < CAP ≤ 1000 | 0.8 | 1.0 | 1.16 | 1.25 | 1.35 | 1.38 |

Multiplier for Ripple Current VS, Temperature

| Temperature (°C) | 45 | 60 | 70 | 85 | 95 | 105 |
|------------------|------|------|------|------|------|------|
| Multiplier | 2.10 | 1.90 | 1.65 | 1.40 | 1.25 | 1.00 |

Diagram of Dimensions: (Unit: mm)



| Dφ | 5 | 6.3 | 8 | 10 | 13 | 16 |
|----|-----|-----|-----|-----|-----|-----|
| F | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 |
| dφ | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 |



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Case Size

φD x L (mm)

| μF | W.V. {S.V.} | 10 {13} | | 16 {20} | | 25 {32} | | 35 {44} | |
|------|----------------|------------|--------|----------------|------------|------------|--------|------------|--------|
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 10 | | - | - | - | - | 5x11 | 34 | 5x11 | 38 |
| 22 | | - | - | 5x11 | 53 | 6.3x11 | 55 | 6.3x11 | 65 |
| 33 | | 5x11 | 59 | 6.3x11 | 62 | 6.3x11 | 72 | 8x11 | 75 |
| 47 | | 5x11 | 65 | 6.3x11 | 85 | 6.3x11 | 96 | 8x11 | 107 |
| 100 | | 6.3x11 | 110 | 6.3x11 8x11 | 140 146 | 8x11 | 152 | 10x12 | 198 |
| 220 | | 8x11 | 185 | 10x12 | 235 | 10x12 | 260 | 10x20 | 350 |
| 330 | | 10x12 | 295 | 10x12 | 320 | 10x17 | 380 | 13x21 | 430 |
| 470 | | 10x12 | 350 | 10x15 | 415 | 13x21 | 460 | 13x26 | 560 |
| 1000 | | 10x20 | 610 | 13x21 | 712 | - | - | - | - |

Ripple Current (mA, rms) at 105°C 120Hz

| μF | W.V. {S.V.} | 50 {63} | | 63 {79} | | 100 {125} | | 160 {200} | |
|------|----------------|----------------|----------|----------------|-----------|----------------|----------|--------------|--------|
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.47 | | 5x11 | 5 | 5x11 | 5 | 5x11 | 10 | 5x11 | 12 |
| 1 | | 5x11 | 10 | 5x11 | 14 | 5x11 | 15 | 6.3x11 | 18 |
| 2.2 | | 5x11 | 17 | 5x11 | 18 | 5x11 | 20 | 8x11 | 28 |
| 3.3 | | 5x11 | 23 | 6.3x11 | 25 | 6.3x11 | 28 | 8x11 | 37 |
| 4.7 | | 5x11 | 28 | 5x11 6.3x11 | 29 30 | 6.3x11 8x11 | 33 36 | 10x12 | 45 |
| 10 | | 6.3x11 8x11 | 50 55 | 6.3x11 | 52 | 8x11 | 60 | 10x15 | 79 |
| 22 | | 6.3x11 8x11 | 65 85 | 8x11 | 88 | 10x15 | 120 | 13x21 | 140 |
| 33 | | 8x11 | 89 | 8x11 10x12 | 95 115 | 13x21 | 175 | 13x21 | 200 |
| 47 | | 10x12 | 123 | 10x15 | 155 | 13x21 | 187 | 13x26 | 215 |
| 100 | | 10x20 | 225 | 13x21 | 275 | 13x26 | 365 | - | - |
| 220 | | 13x26 | 410 | 13x26 | 490 | - | - | - | - |
| 330 | | 16x26 | 550 | - | - | - | - | - | - |

•Ripple Current (mA, rms) at 105°C 120Hz

| μF | W.V. {S.V.} | 200 {250} | | 250 {300} | |
|------|----------------|--------------|--------|--------------|--------|
| | | Size | Ripple | Size | Ripple |
| 0.47 | | 6.3x11 | 17 | 6.3x11 | 20 |
| 1 | | 8x11 | 21 | 8x11 | 25 |
| 2.2 | | 8x11 | 32 | 10x12 | 39 |
| 3.3 | | 10x12 | 40 | 10x15 | 43 |
| 4.7 | | 10x15 | 52 | 10x20 | 65 |
| 10 | | 10x20 | 86 | 10x20 | 109 |
| 22 | | 13x21 | 160 | 13x26 | 189 |
| 33 | | 13x21 | 213 | 16x26 | 250 |
| 47 | | 13x26 | 238 | - | - |

•Ripple Current (mA, rms) at 105°C 120Hz

RADIAL