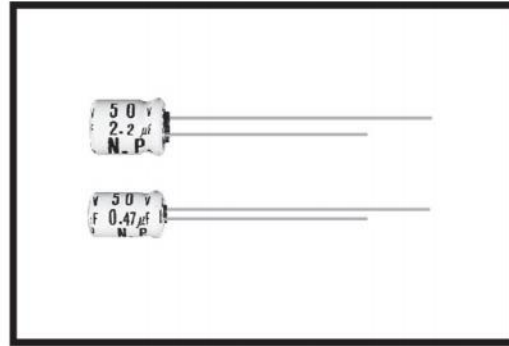


NP7 SERIES

Bi-polar, 7mm Height



◆ SPECIFICATIONS

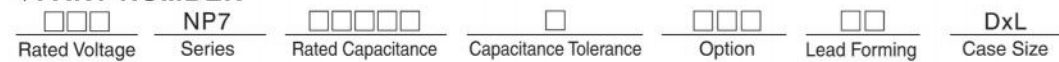
| Items | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------------|-----------------------------------|--------------------|--|-----------------|------------------------------------|----|--------------|------------------|------|------|------|------|------|------|--|------------------|----|---|---|---|---|---|--|
| Category Temperature Range | -40~+85°C | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3~50V.DC | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20%(20°C,120Hz) | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | I=0.05CV or 10µA whichever is greater. (After 5 minutes application of rated voltage) I=Leakage Current(µA) C=Rated Capacitance(µF) V=Rated Voltage(V) | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) | <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(20°C,120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.17</td> <td>0.15</td> <td>0.14</td> <td></td> </tr> </table> | Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | (20°C,120Hz) | tanδ | 0.26 | 0.22 | 0.18 | 0.17 | 0.15 | 0.14 | | | | | | | | | |
| Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | (20°C,120Hz) | | | | | | | | | | | | | | | | | | |
| tanδ | 0.26 | 0.22 | 0.18 | 0.17 | 0.15 | 0.14 | | | | | | | | | | | | | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for 1000hrs at 85°C, (The polarity shall be reversed every 500hrs.), the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±25% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> | Capacitance Change | Within ±25% of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | |
| Capacitance Change | Within ±25% of the initial value. | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td></td> </tr> </table> | Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | (120Hz) | Z(-25°C)/Z(20°C) | 4 | 3 | 3 | 2 | 2 | 2 | | Z(-40°C)/Z(20°C) | 10 | 8 | 6 | 4 | 4 | 4 | |
| Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | (120Hz) | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 4 | 3 | 3 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 10 | 8 | 6 | 4 | 4 | 4 | | | | | | | | | | | | | | | | | | | |

◆ MULTIPLIER FOR RIPPLE CURRENT

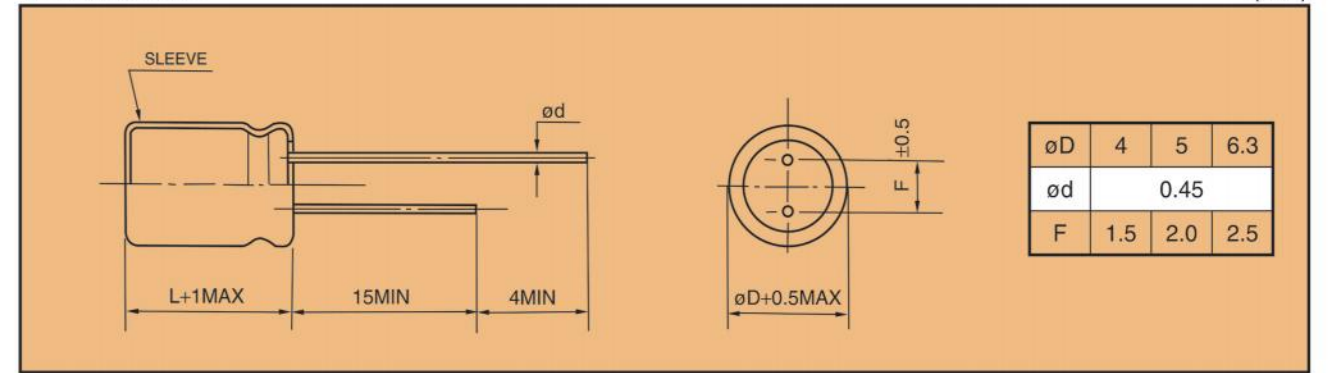
Frequency coefficient

| Frequency (Hz) | 60(50) | 120 | 500 | 1k | 10k≤ |
|----------------|--------|------|------|------|------|
| 0.1~1µF | 0.50 | 1.00 | 1.20 | 1.30 | 1.50 |
| 2.2~4.7µF | 0.65 | 1.00 | 1.20 | 1.30 | 1.50 |
| 10~47µF | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |

◆ PART NUMBER



◆ DIMENSIONS



◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size øDxL(mm), Ripple Current (mA r.m.s./85°C, 120Hz)

| Cap(µF) | 6.3 (0J) | | 10 (1A) | | 16 (1C) | | 25 (1E) | | 35 (1V) | | 50 (1H) | |
|---------|----------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.1 | | | | | | | | | | | 4x7 | 1 |
| 0.22 | | | | | | | | | | | 4x7 | 2 |
| 0.33 | | | | | | | | | | | 4x7 | 3 |
| 0.47 | | | | | | | | | | | 4x7 | 5 |
| 1 | | | | | | | | | | | 4x7 | 10 |
| 2.2 | | | | | | | | | 4x7 | 13 | 5x7 | 15 |
| 3.3 | | | | | | | 4x7 | 15 | 5x7 | 19 | 5x7 | 19 |
| 4.7 | | | | | 4x7 | 18 | 4x7 | 18 | 5x7 | 22 | 6.3x7 | 26 |
| 10 | | | 4x7 | 23 | 4x7 | 25 | 6.3x7 | 35 | 6.3x7 | 37 | | |
| 22 | 5x7 | 32 | 5x7 | 35 | 6.3x7 | 45 | 6.3x7 | 50 | | | | |
| 33 | 5x7 | 40 | 6.3x7 | 45 | 6.3x7 | 60 | | | | | | |
| 47 | 6.3x7 | 56 | 6.3x7 | 65 | 6.3x7 | 65 | | | | | | |