

L7 series

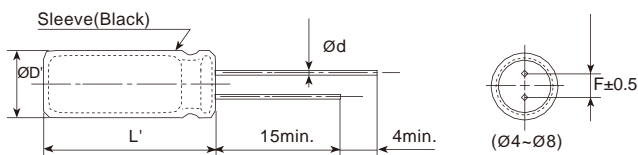
- Miniature series with 7mm height
- Endurance : +105 °C 2,000 hours
- Wide temperature range of -40°C to +105°C
- RoHS Compliant



SPECIFICATIONS

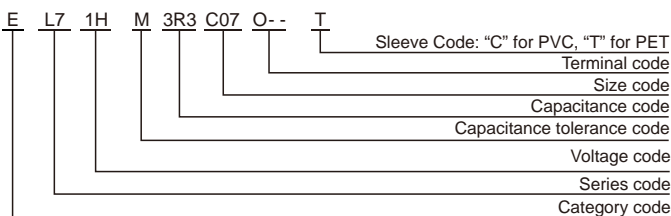
| Items | Characteristics | | | | | | | | |
|--|--|-------------------------------------|------|------|------|------|------|------|------------------|
| Category Temperature Range | -40~+105°C | | | | | | | | |
| Rated Voltage Range | 6.3~63 V _{dc} | | | | | | | | |
| Capacitance Tolerance | ±20%(M) (at 20°C, 120Hz) | | | | | | | | |
| Leakage Current | I 0.01CV or 3μA, whichever is greater. Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) (at 20°C after 2 minutes) | | | | | | | | |
| Dissipation Factor (tan δ) | Rated Voltage(V _{dc}) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | (at 20°C, 120Hz) |
| | tan (max.) | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated Voltage(V _{dc}) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | (at 120Hz) |
| | Z(-25°C)/Z(+20°C) | 4 | 3 | 2 | | | | | |
| | Z(-40°C)/Z(+20°C) | 8 | 6 | 4 | 3 | | | | |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C. | | | | | | | | |
| | Capacitance Change | ±20% of the initial value | | | | | | | |
| | D.F. (tan δ) | 200% of the initial specified value | | | | | | | |
| | Leakage Current | The initial specified value | | | | | | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. | | | | | | | | |
| | Capacitance Change | ±20% of the initial value | | | | | | | |
| | D.F. (tan δ) | 200% of the initial specified value | | | | | | | |
| | Leakage Current | 200% of the initial specified value | | | | | | | |

DIMENSIONS[mm]



| | | | | |
|-----|------------|------|-----|-----|
| ØD | 4 | 5 | 6.3 | 8 |
| Ød | 0.45 | 0.45 | 0.5 | 0.5 |
| F | 1.5 | 2.0 | 2.5 | 3.5 |
| ØD' | ØD+0.5max. | | | |
| L' | L+2max. | | | |

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

| WV(V _{dc}) | Freq.(Hz) | 50/60 | 120 | 1k | 10k-100k |
|----------------------|-----------|-------|------|------|----------|
| | 6.3 to 16 | | 0.80 | 1.00 | 1.30 |
| 25 to 35 | | 0.80 | 1.00 | 1.20 | 1.20 |
| 50 | | 0.80 | 1.00 | 1.15 | 1.20 |

The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5 °C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

L7 series

■ STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Size DxL(mm) | tan | Rated ripple current (mA _{rms} /105°C, 120Hz) | Part Number |
|-----------------------|----------|--------------|------|--|----------------|
| 6.3(0J) | 22 | 4x7 | 0.22 | 28 | EL70JM220C07OT |
| | 33 | 4x7 | 0.22 | 32 | EL70JM330C07OT |
| | | 5x7 | 0.22 | 35 | EL70JM330D07OT |
| | 47 | 5x7 | 0.22 | 47 | EL70JM470D07OT |
| | 68 | 5x7 | 0.22 | 50 | EL70JM680D07OT |
| | 100 | 6.3x7 | 0.22 | 75 | EL70JM101E07OT |
| | 220 | 8x7 | 0.22 | 92 | EL70JM221F07OT |
| 10(1A) | 22 | 4x7 | 0.19 | 32 | EL71AM220C07OT |
| | 33 | 5x7 | 0.19 | 48 | EL71AM330D07OT |
| | 47 | 5x7 | 0.19 | 51 | EL71AM470D07OT |
| | 68 | 6.3x7 | 0.19 | 68 | EL71AM680E07OT |
| | 100 | 6.3x7 | 0.19 | 80 | EL71AM101E07OT |
| | | 8x7 | 0.19 | 95 | EL71AM101F07OT |
| 220 | 8x7 | 0.19 | 130 | EL71AM221F07OT | |
| 16(1C) | 10 | 4x7 | 0.16 | 28 | EL71CM100C07OT |
| | 22 | 4x7 | 0.16 | 35 | EL71CM220C07OT |
| | | 5x7 | 0.16 | 42 | EL71CM220D07OT |
| | 33 | 5x7 | 0.16 | 50 | EL71CM330D07OT |
| | 47 | 6.3x7 | 0.16 | 67 | EL71CM470E07OT |
| | 68 | 6.3x7 | 0.16 | 70 | EL71CM680E07OT |
| | | 8x7 | 0.16 | 78 | EL71CM680F07OT |
| | 100 | 8x7 | 0.16 | 110 | EL71CM101F07OT |
| 25(1E) | 4.7 | 4x7 | 0.14 | 17 | EL71EM4R7C07OT |
| | 6.8 | 4x7 | 0.14 | 19 | EL71EM6R8C07OT |
| | 10 | 4x7 | 0.14 | 28 | EL71EM100C07OT |
| | | 5x7 | 0.14 | 33 | EL71EM100D07OT |
| | 22 | 5x7 | 0.14 | 43 | EL71EM220D07OT |
| | | 6.3x7 | 0.14 | 45 | EL71EM220E07OT |
| | 33 | 6.3x7 | 0.14 | 62 | EL71EM330E07OT |
| | 47 | 8x7 | 0.14 | 75 | EL71EM470F07OT |
| | 68 | 8x7 | 0.14 | 80 | EL71EM680F07OT |
| | 100 | 8x7 | 0.14 | 115 | EL71EM101F07OT |

| WV (V _{dc}) | Cap (μF) | Size DxL(mm) | tan | Rated ripple current (mA _{rms} /105°C, 120Hz) | Part Number |
|-----------------------|----------|--------------|------|--|----------------|
| 35(1V) | 4.7 | 4x7 | 0.12 | 22 | EL71VM4R7C07OT |
| | 6.8 | 4x7 | 0.12 | 24 | EL71VM6R8C07OT |
| | | 5x7 | 0.12 | 28 | EL71VM6R8D07OT |
| | 10 | 5x7 | 0.12 | 35 | EL71VM100D07OT |
| | 22 | 6.3x7 | 0.12 | 60 | EL71VM220E07OT |
| | 33 | 6.3x7 | 0.12 | 50 | EL71VM330E07OT |
| | | 8x7 | 0.12 | 68 | EL71VM330F07OT |
| | 47 | 8x7 | 0.12 | 80 | EL71VM470F07OT |
| 68 | 8x7 | 0.12 | 85 | EL71VM680F07OT | |
| 50(1H) | 0.1 | 4x7 | 0.10 | 1.5 | EL71HMR10C07OT |
| | 0.22 | 4x7 | 0.10 | 2.5 | EL71HMR22C07OT |
| | 0.33 | 4x7 | 0.10 | 3.5 | EL71HMR33C07OT |
| | 0.47 | 4x7 | 0.10 | 5 | EL71HMR47C07OT |
| | 0.68 | 4x7 | 0.10 | 7 | EL71HMR68C07OT |
| | 1 | 4x7 | 0.10 | 10 | EL71HM010C07OT |
| | 2.2 | 4x7 | 0.10 | 20 | EL71HM2R2C07OT |
| | 3.3 | 4x7 | 0.10 | 26 | EL71HM3R3C07OT |
| | 4.7 | 4x7 | 0.10 | 27 | EL71HM4R7C07OT |
| | | 5x7 | 0.10 | 29 | EL71HM4R7D07OT |
| 10 | 6.3x7 | 0.10 | 38 | EL71HM100E07OT | |
| 22 | 8x7 | 0.10 | 63 | EL71HM220F07OT | |
| 33 | 8x7 | 0.10 | 78 | EL71HM330F07OT | |
| 63(1J) | 0.1 | 4x7 | 0.09 | 1.5 | EL71JMR10C07OT |
| | 0.22 | 4x7 | 0.09 | 2.5 | EL71JMR22C07OT |
| | 0.33 | 4x7 | 0.09 | 3.5 | EL71JMR33C07OT |
| | 0.47 | 4x7 | 0.09 | 6 | EL71JMR47C07OT |
| | 1 | 4x7 | 0.09 | 12 | EL71JM010C07OT |
| | 2.2 | 4x7 | 0.09 | 20 | EL71JM2R2C07OT |
| | 3.3 | 5x7 | 0.09 | 28 | EL71JM3R3D07OT |
| | 4.7 | 6.3x7 | 0.09 | 33 | EL71JM4R7E07OT |
| | 10 | 6.3x7 | 0.09 | 40 | EL71JM100E07OT |
| | 22 | 8x7 | 0.09 | 65 | EL71JM220F07OT |