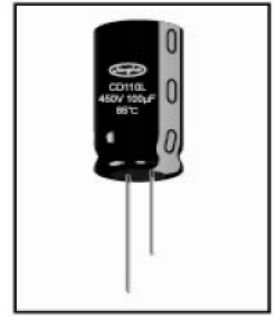
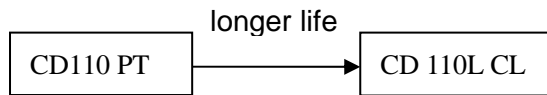


8000h at 85°C

- Load life
- High ripple current



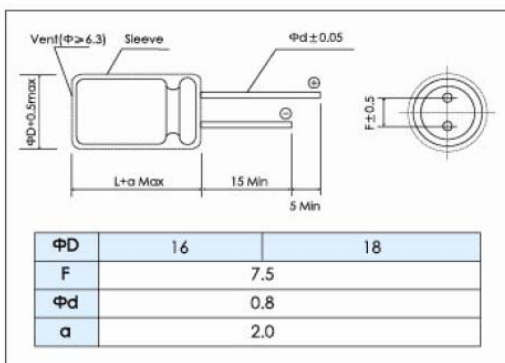
| Items | Characteristics | | | |
|---|--|---------|-----|-----|
| Operating Temperature Range(°C) | -25 ~ +85 | | | |
| Voltage Range (V) | 420 ~ 500 | | | |
| Capacitance Range(μF) | 47 ~ 150 | | | |
| Capacitance Tolerance (20°C,120Hz) | ± 20% | | | |
| Leakage Current (μA) | After 1 minute at 20°C application of rated voltage, leakage current is not more than 0.04CV+100 C: Nominal Capacitance(μF) V: Rated Voltage(V) | | | |
| Dissipation Factor (20°C, 120Hz) | Wv (V) | 420 | 450 | 500 |
| | tan δ (max) | 20 | | |
| Stability at Low Temperature (Impedance Ratio at 120Hz) | Wv(V) | 420-500 | | |
| | Z _{25°C} / Z _{+20°C} | 8 | | |

| | Useful Life | Load Life | Endurance Test | Shelf Life |
|---|--|--|--|--|
| Lifetime | 10000h | 8000h | 8000h | 1000h |
| Leakage Current | Not more than specified value | Not more than specified value | Not more than specified value | Not more than specified value |
| Capacitance Change | Within ±30% of initial value | Within ±20% of initial value | Within ±20% of initial value | Within ±20% of initial value |
| Dissipation Factor | Not more than 300% of specified value | Not more than 200% of specified value | Not more than 200% of specified value | Not more than 200% of specified value |
| Condition: Applied Voltage Applied Current Applied Temperature | U _R I _R 85°C | U _R I _R 85°C | U _R I _R = 0 85°C | U _R = 0 I _R = 0 85°C After test: U _R to be applied for 30min>24h before measurement |

Dimensions

mm

Frequency coefficient



| Frequency | 50/60Hz | 120Hz | 1kHz | 10kHz | 50kHz | 100kHz |
|-------------|---------|-------|------|-------|-------|--------|
| Coefficient | 0.8 | 1.0 | 1.3 | 1.4 | 1.9 | 2.0 |

Temperature Coefficient

| Temperature(°C) | +70 | +85 |
|-----------------|------|-----|
| Coefficient | 1.35 | 1 |

CD 110L CL Series



Ratings for CD110L CL Series

| U_R (Surge Voltage) Code | Rated Capacitance | Max. ESR 20°C, 120Hz | Typ ESR 20°C, 120Hz | Rated Ripple Current 85°C, 120Hz | Size $\Phi D \times L$ | P/N |
|----------------------------------|----------------------|-------------------------|------------------------|-------------------------------------|---------------------------|---------------------|
| (v) | (μF) | (Ω) | (Ω) | (mA _{RMS}) | (mm) | - |
| 420 (470) 2X | 47 | 5.6 | 3.9 | 440 | 16x31.5 | ECR2XCL470M□□160031 |
| | 68 | 3.9 | 2.7 | 565 | 16x36 | ECR2XCL680M□□160036 |
| | 68 | 3.9 | 2.7 | 565 | 18x31.5 | ECR2XCL680M□□180031 |
| | 82 | 3.2 | 2.2 | 630 | 16x40 | ECR2XCL820M□□160040 |
| | 82 | 3.2 | 2.2 | 630 | 18x31.5 | ECR2XCL820M□□180031 |
| | 100 | 2.7 | 1.9 | 730 | 16x45 | ECR2XCL101M□□160045 |
| | 100 | 2.7 | 1.9 | 730 | 18x36 | ECR2XCL101M□□180036 |
| | 120 | 2.2 | 1.5 | 850 | 16x50 | ECR2XCL121M□□160050 |
| | 120 | 2.2 | 1.5 | 850 | 18x40 | ECR2XCL121M□□180040 |
| | 150 | 1.8 | 1.3 | 940 | 16x60 | ECR2XCL151M□□160060 |
| | 150 | 1.8 | 1.3 | 940 | 18x46 | ECR2XCL151M□□180046 |
| 450 (500) 2W | 47 | 5.6 | 3.9 | 440 | 16x31.5 | ECR2WCL470M□□160031 |
| | 68 | 3.9 | 2.7 | 565 | 16x36 | ECR2WCL680M□□160036 |
| | 68 | 3.9 | 2.7 | 580 | 18x31.5 | ECR2WCL680M□□180031 |
| | 82 | 3.2 | 2.2 | 630 | 16x40 | ECR2WCL820M□□160040 |
| | 82 | 3.2 | 2.2 | 640 | 18x31.5 | ECR2WCL820M□□180031 |
| | 100 | 2.7 | 1.9 | 730 | 16x45 | ECR2WCL101M□□160045 |
| | 100 | 2.7 | 1.9 | 750 | 18x36 | ECR2WCL101M□□180036 |
| | 120 | 2.2 | 1.5 | 850 | 16x50 | ECR2WCL121M□□160050 |
| | 120 | 2.2 | 1.5 | 860 | 18x40 | ECR2WCL121M□□180040 |
| | 150 | 1.8 | 1.3 | 940 | 16x60 | ECR2WCL151M□□160060 |
| | 150 | 1.8 | 1.3 | 940 | 18x46 | ECR2WCL151M□□180046 |
| 500 (550) 2H | 47 | 5.6 | 3.9 | 400 | 16x36 | ECR2HCL470M□□160036 |
| | 47 | 5.6 | 3.9 | 420 | 18x31.5 | ECR2HCL470M□□180031 |
| | 68 | 3.9 | 2.7 | 520 | 16x45 | ECR2HCL680M□□160045 |
| | 68 | 3.9 | 2.7 | 540 | 18x36 | ECR2HCL680M□□180036 |
| | 82 | 3.2 | 2.2 | 600 | 16x55 | ECR2HCL820M□□160055 |
| | 82 | 3.2 | 2.2 | 610 | 18x40 | ECR2HCL820M□□180040 |
| | 100 | 2.7 | 1.9 | 710 | 16x60 | ECR2HCL101M□□160060 |
| | 100 | 2.7 | 1.9 | 720 | 18x46 | ECR2HCL101M□□180046 |

Customer products are available on request.

Lifetime Diagram

