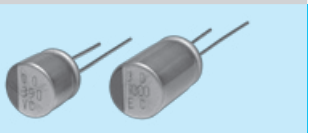
Hybrid Conductive Polymer Type / Radial Lead Type **RoHS compliance**

# FEC Series

105℃·125℃·135℃
High Ripple Current, High Capacitance



- 105℃ 4,000hours, 125℃ 4,000hours, 135℃ 4,000hours
- Laminated case ● Solvent proof (within 2 minutes)
- AEC-Q200

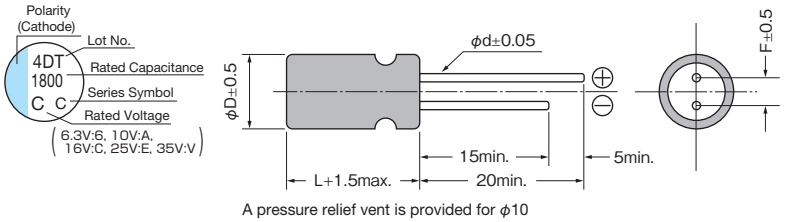
UPGRADE



## ■ Specifications

| Items | Condition | | Specifications | | | | |
|---|---|---|---|---|---|---|---|
| Rated voltage (V) | — | | 6.3 | 10 | 16 | 25 | 35 |
| Surge voltage (V) | Room temperature | | 8.0 | 13 | 20 | 32 | 44 |
| Category temperature range(℃) | — | | φ6.3 : −55 to +125 φ8·φ10 : −55 to +135 | | | | |
| Capacitance tolerance(%) | 120Hz/20℃ | | M : ±20 | | | | |
| Dissipation Factor(tanδ) | tanδ (max.)120Hz/20℃ | | 0.18 | 0.16 | 0.16 | 0.14 | 0.12 |
| Leakage current(LC) | μA/after 2minutes (max.), 20℃ | | the greater value of either 0.05CV or 100 | | | | |
| Endurance | 105℃, 125℃, 135℃ rated voltage applied (With the rated ripple current) | Test | 4,000hours | | | | |
| | | △C/C | Within ±30% of the initial value | | | | |
| | | tanδ | Not more than 200% of the specified value | | | | |
| | | ESR | Not more than 200% of the specified value | | | | |
| | | LC | Not more than the specified value | | | | |
| Shelf Life | φD=6.3:125℃, φD≧8:135℃, 1,000hours(with no voltage load) | | Shall meet the endurance spec above after voltage treatment at 20deg.C per JIS C 5101-4 4.1. | | | | |

## ■ Marking, Dimensions




A pressure relief vent is provided for φ10

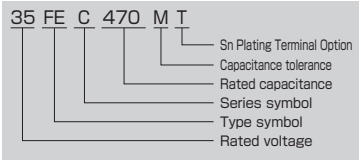
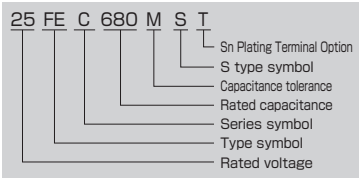
(Unit : mm)

| φD | L | F | φd |
|---|---|---|---|
| 6.3 | 7.2 | 2.5 | 0.45 |
| 8 | 9.5 | 3.5 | 0.6 |
| 10 | 9.5 | 5.0 | 0.7 |
| 10 | 11.5 | 5.0 | 0.7 |
| 10 | 15.0 | 5.0 | 0.7 |

## ■ Size, ESR, Rated Ripple Current

| V / Items / μF | 6.3 | | | | | 10 | | | | | 16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Case size φDxL(mm) | ESR(mΩmax.) (20℃/100kHz) | Rated ripple current(mArms/100kHz) 105℃ | 125℃ | 135℃ | Case size φDxL(mm) | ESR(mΩmax.) (20℃/100kHz) | Rated ripple current(mArms/100kHz) 105℃ | 125℃ | 135℃ | Case size φDxL(mm) | ESR(mΩmax.) (20℃/100kHz) | Rated ripple current(mArms/100kHz) 105℃ | 125℃ | 135℃ |
| 390 | | | | | | 6.3×7.2 | 28 | 4200 | 1500 | — | | | | | |
| 560 | 6.3×7.2 | 28 | 4200 | 1500 | — | | | | | | 8×9.5 | 27 | — | 3100 | 1500 |
| 820 | | | | | | 8×9.5 | 18 | 6000 | 3700 | 1800 | | | | | |
| 1000 | | | | | | | | | | | 10×9.5 | 20 | — | 3600 | 1750 |
| 1200 | 8×9.5 | 18 | 6000 | 3700 | 1800 | | | | | | 10×11.5 | 16 | — | 4100 | 1950 |
| 1500 | | | | | | 10×9.5 | 16 | 6500 | 4000 | 1900 | | | | | |
| 1800 | | | | | | 10×11.5 | 14 | 7000 | 4400 | 2100 | 10×15 | 11 | — | 5200 | 2500 |
| 2200 | 10×9.5 | 16 | 6500 | 4000 | 1900 | | | | | | | | | | |
| 2700 | 10×11.5 | 14 | 7000 | 4400 | 2100 | 10×15 | 10 | 8400 | 5200 | 2500 | | | | | |
| 3900 | 10×15 | 10 | 8400 | 5200 | 2500 | | | | | | | | | | |

| V / Items / μF | 25 | | | | | 35 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Case size φDxL(mm) | ESR(mΩmax.) (20℃/100kHz) | Rated ripple current(mArms/100kHz) 105℃ | 125℃ | 135℃ | Case size φDxL(mm) | ESR(mΩmax.) (20℃/100kHz) | Rated ripple current(mArms/100kHz) 105℃ | 125℃ | 135℃ |
| 220 | | | | | | 8×9.5 | 27 | — | 3100 | 1500 |
| 330 | 8×9.5 | 27 | — | 3100 | 1500 | | | | | |
| 390 | 8×9.5 | 27 | — | 3100 | 1500 | 10×9.5 | 20 | — | 3600 | 1750 |
| 470 | | | | | | 10×11.5 | 16 | — | 4100 | 1950 |
| 560 | 10×9.5 | 20 | — | 3600 | 1750 | | | | | |
| 680 | 10×9.5★ | 20 | — | 3600 | 1750 | 10×15 | 11 | — | 5200 | 2500 |
| | 10×11.5 | 16 | — | 4100 | 1950 | | | | | |
| 820 | 10×11.5★ | 16 | — | 4100 | 1950 | | | | | |
| 1000 | 10×15 | 11 | — | 5200 | 2500 | | | | | |
| 1200 | 10×15 | 11 | — | 5200 | 2500 | | | | | |

Please refer to page 20 for ripple current frequency coefficients.
★S type

### ■ Part number