

| No | Item | Performance Characteristics | Test |
|----|-----------------------------|---|--|
| 12 | Damp Heat (Steady state) | Leakage Current : ≤ the value of item 7.1. Capacitance Change : Within ±20% of the initially measured value. Tangent of Loss Angle (tanδ): ≤ 120% the value of item 7. 3. Appearance : No significant change can be observed. | Test Temperature : 40°C±2°C Relative Humidity : 90% ~ 95% Test Duration : 240hours ±8hours After subjected to the test, capacitors shall be left for 2 hours at room temperature and room humidity prior to the measurement. |
| 13 | Endurance | Leakage Current : ≤ the value of item 7.1. Capacitance Change : Within ±20% of the initially measured value. Tangent of Loss Angle (tanδ): ≤ 200% of the value of item 7. 3. Appearance : No significant change can be observed. | Test Temperature : 105°C±2°C Test Duration : 1000 ⁺⁴⁸ ₀ hours (φ8≥) : 2000 ⁺⁷² ₀ hours (φ10≤) Applied Voltage : Rated specified ripple current. The sum of DC and ripple peak voltage shall not exceed the working voltage. After subjected to the test, capacitors shall be left at room temperature and room humidity for 2 hours prior to the measurement. |
| 14 | Shelf Life | Leakage Current : ≤ the value of item 7.1. Capacitance Change : Within ±20% of the initially measured value. Tangent of Loss Angle (tanδ): ≤ 200% of the value of item 7. 3. Appearance : No significant change can be observed. | Test Temperature : 105°C±2°C Test Duration : 1000 ⁺⁴⁸ ₀ hours After subjected to the test with no voltage applied, capacitors shall undergo voltage treatment* and be left for 2 hours at room temperature and humidity prior to the measurement. |

* Voltage treatment : The rated voltage shall be applied to the capacitors, which are connected to series protective resistors (1000Ω±10Ω), for 30 minutes as a posttest treatment (performing discharge).

8. Other Characteristics

■ Table 1. Characteristics at low temperature Impedance ratio (at 120 Hz)

| V.DC | 10 | 16 | 25 | 35 | 50 |
|------------------|----|----|----|----|----|
| Z(-25°C)/Z(20°C) | 3 | 2 | 2 | 2 | 2 |
| Z(-40°C)/Z(20°C) | 6 | 4 | 3 | 3 | 3 |

■ Table 2. Frequency Correction Factor of Rated Ripple Current

| (μF) | Frequency (Hz) | | | | |
|--------|----------------|------|------|------|-------|
| | 60 | 120 | 1k | 10k | 100k~ |
| ~33 | 0.75 | 1.00 | 1.55 | 1.80 | 2.00 |
| 47~680 | 0.80 | 1.00 | 1.35 | 1.50 | 1.50 |
| 1000~ | 0.85 | 1.00 | 1.10 | 1.15 | 1.15 |