

# ALUMINUM ELECTROLYTIC CAPACITORS

APPROVAL NO.

**NFR 400 VB 3.3 (M)**

SERIES

NFR

RATING

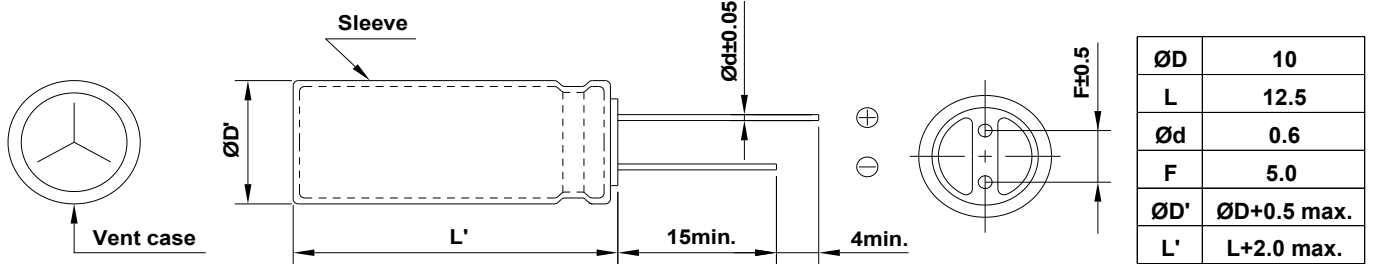
400 V 3.3  $\mu$ F

CASE SIZE

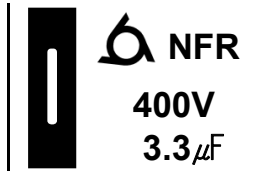
$\varnothing$ 10 × 12.5L

## A. DIAGRAM OF DIMENSION

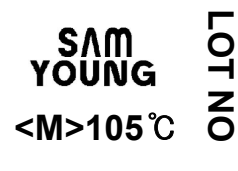
[ UNIT : mm ]



## B. MARKING : DARK BROWN SLEEVE & SILVER INK



FRONT VIEW OF CAPACITOR



BACK VIEW OF CAPACITOR

## C. ELECTRICAL CHARACTERISTICS

- A. OPERATING TEMPERATURE RANGE : -40 ~ +105°C
- B. RATED VOLTAGE : 400 V<sub>DC</sub>
- C. SURGE VOLTAGE : 450 V<sub>DC</sub>
- D. CAPACITANCE TOLERANCE : ± 20% at 20°C , 120Hz
- E. LEAKAGE CURRENT : Lower 152.8 µA , after 1 minute at 20°C
- F. DISSIPATION FACTOR (TAN δ) : Lower 0.24 at 20°C , 120Hz
- G. MAX. RIPPLE CURRENT : 150 mArms at 105°C , 100kHz
- H. TEMPERATURE CHARACTERISTIC :
- (Max.Impedance ratio)  $Z(-25^\circ\text{C}) / Z(20^\circ\text{C}) = \underline{5}$
- $Z(-40^\circ\text{C}) / Z(20^\circ\text{C}) = \underline{6}$  (at 120Hz)
- I. LOAD LIFE : The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours at 105°C.
- # Capacitance change  $\leq$  ±20% of the initial value
- # Tan δ  $\leq$  200% of the initial specified value
- # Leakage Current  $\leq$  The initial specified value
- J. 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. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurement.
- # Capacitance change  $\leq$  ±20% of the initial value
- # Tan δ  $\leq$  200% of the initial specified value
- # Leakage Current  $\leq$  500% of the initial specified value
- K. CLEANING CONDITIONS : Non-solvent proof
- L. OTHERS : Satisfied characteristics KS C IEC 60384-4



SamYoung Electronics Co., Ltd.