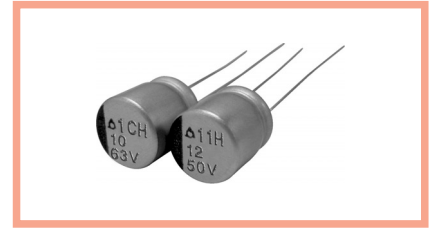
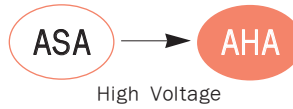


## reAlcap™ AHA Series

- High Voltage(16~100V)
- High Ripple Current
- Endurance 105°C, 2,000~5,000hrs



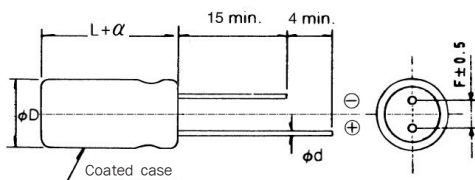
## SPECIFICATIONS

| Item                                              | Characteristics                                                                                                                                                        |                                       |        |    |             |            |      |                        |           |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------|----|-------------|------------|------|------------------------|-----------|
| Category temperature range                        | -55 to +105℃                                                                                                                                                           |                                       |        |    |             |            |      |                        |           |
| Rated voltage range                               | 16 to 100V <sub>DC</sub>                                                                                                                                               |                                       |        |    |             |            |      |                        |           |
| Surge voltage                                     | Rated Voltage(WV)                                                                                                                                                      | 16                                    | 20     | 25 | 35          | 50         | 63   | 80                     | 100       |
|                                                   | Surge Voltage(SV)                                                                                                                                                      | 18.4                                  | 23     | 29 | 40          | 57.5       | 72.5 | 92                     | 115       |
| Capacitance tolerance                             | ±20%(M) (at 20℃, 120Hz)                                                                                                                                                |                                       |        |    |             |            |      |                        |           |
| Tangent of loss angle                             | Shall not exceed the value in Ratings of AHA series. (at 20℃, 120Hz)                                                                                                   |                                       |        |    |             |            |      |                        |           |
| Leakage Current ※ 1                               | Shall not exceed the value in Ratings of AHA series. (at 20℃, 2 minutes)                                                                                               |                                       |        |    |             |            |      |                        |           |
| ESR                                               | Shall not exceed the value in Ratings of AHA series. (at 20℃, 100kHz)                                                                                                  |                                       |        |    |             |            |      |                        |           |
| Impedance Ratio<br>(Characteristics at low temp.) | Impedance                                                                                                                                                              |                                       | Ratio  |    | (at 100kHz) |            |      |                        |           |
|                                                   | Z(-25℃)/Z(+20℃)                                                                                                                                                        |                                       | ≤ 1.15 |    |             |            |      |                        |           |
|                                                   | Z(-55℃)/Z(+20℃)                                                                                                                                                        |                                       | ≤ 1.25 |    |             |            |      |                        |           |
| Endurance                                         | The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for the specified time at 105℃.             |                                       |        |    |             |            |      |                        |           |
|                                                   | Capacitance change                                                                                                                                                     | ≤ ±20% of the initial value           |        |    |             | Voltage(V) |      | Case Size              | Time(Hrs) |
|                                                   | Tan δ                                                                                                                                                                  | ≤ 150% of the initial specified value |        |    |             | 16~80      |      | 6.3×6, 8×7             | 3,000     |
|                                                   | ESR                                                                                                                                                                    | ≤ 150% of the initial specified value |        |    |             |            |      | 8×11.5, 10×10, 10×12.5 | 5,000     |
|                                                   | Leakage current                                                                                                                                                        | ≤ The initial specified value         |        |    |             | 100        |      | 8×11.5, 10×10, 10×12.5 | 2,000     |
| Bias Humidity                                     | The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 60℃, 90~95%RH for 1000 hours. |                                       |        |    |             |            |      |                        |           |
|                                                   | Capacitance change                                                                                                                                                     | ≤ ±20% of the initial value           |        |    |             |            |      |                        |           |
|                                                   | Tan δ                                                                                                                                                                  | ≤ 150% of the initial specified value |        |    |             |            |      |                        |           |
|                                                   | ESR                                                                                                                                                                    | ≤ 150% of the initial specified value |        |    |             |            |      |                        |           |
|                                                   | Leakage current                                                                                                                                                        | ≤ The initial specified value         |        |    |             |            |      |                        |           |

※ 1. If any doubt arises, remeasure the leakage current after following voltage treatment.(Voltage treatment : Applying rated voltage for 120minutes at 105°C)

## DIMENSIONS

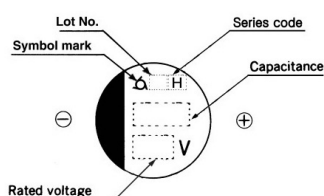
### Coating Case Type



Unit(mm)

|              |      |      |      |      |      |
|--------------|------|------|------|------|------|
| ∅D(+0.5max.) | 6.3  | 8.0  | 8.0  | 10.0 | 10.0 |
| L            | 6.0  | 7.0  | 11.5 | 10.0 | 12.5 |
| α            | 0.5  |      |      |      |      |
| ∅d(±0.05)    | 0.45 | 0.45 | 0.6  | 0.6  | 0.6  |
| F(±0.5)      | 2.5  | 3.5  | 3.5  | 5.0  | 5.0  |

## MARKING



## RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

| Freq.(Hz) | 120 ≤ f < 1k | 1k ≤ f < 10k | 10k ≤ f < 100k | 100k ≤ f < 500k |
|-----------|--------------|--------------|----------------|-----------------|
| Factor    | 0.05         | 0.3          | 0.7            | 1               |

## RATINGS OF AHA Series

| Case Size<br>( $\varnothing D \times L$ )<br>(mm) | Rated Voltage<br>(V) | Rated Capacitance<br>( $\mu F$ ) | ESR(m $\Omega$ )<br>(at 100kHz) | Rated Ripple Current(mArms<br>/105°C, 100kHz) | Tangent of<br>loss angle | Leakage<br>Current<br>( $\mu A$ ) |
|---------------------------------------------------|----------------------|----------------------------------|---------------------------------|-----------------------------------------------|--------------------------|-----------------------------------|
| 6.3×6                                             | 16                   | 56                               | 40                              | 1,790                                         | 0.10                     | 179                               |
|                                                   | 20                   | 47                               | 40                              | 1,790                                         | 0.10                     | 188                               |
|                                                   | 25                   | 33                               | 45                              | 1,690                                         | 0.10                     | 165                               |
|                                                   | 35                   | 18                               | 47                              | 1,650                                         | 0.10                     | 126                               |
|                                                   | 50                   | 12                               | 50                              | 1,600                                         | 0.10                     | 120                               |
|                                                   | 63                   | 10                               | 60                              | 1,460                                         | 0.10                     | 126                               |
| 8×7                                               | 16                   | 82                               | 35                              | 1,910                                         | 0.10                     | 262                               |
|                                                   | 20                   | 68                               | 35                              | 1,910                                         | 0.10                     | 272                               |
|                                                   | 25                   | 56                               | 40                              | 1,790                                         | 0.10                     | 280                               |
|                                                   | 35                   | 27                               | 42                              | 1,750                                         | 0.10                     | 189                               |
|                                                   | 50                   | 22                               | 45                              | 1,690                                         | 0.10                     | 220                               |
|                                                   | 63                   | 12                               | 50                              | 1,620                                         | 0.10                     | 151                               |
| 8×11.5                                            | 16                   | 270                              | 25                              | 2,800                                         | 0.10                     | 864                               |
|                                                   | 20                   | 220                              | 25                              | 2,800                                         | 0.10                     | 880                               |
|                                                   | 25                   | 150                              | 30                              | 2,560                                         | 0.10                     | 750                               |
|                                                   | 35                   | 82                               | 35                              | 2,370                                         | 0.10                     | 574                               |
|                                                   | 50                   | 56                               | 40                              | 2,210                                         | 0.10                     | 560                               |
|                                                   | 63                   | 39                               | 45                              | 2,090                                         | 0.10                     | 491                               |
|                                                   | 80                   | 33                               | 50                              | 1,980                                         | 0.10                     | 528                               |
|                                                   | 100                  | 15                               | 60                              | 1,810                                         | 0.10                     | 300                               |
| 10×10                                             | 16                   | 470                              | 25                              | 3,010                                         | 0.10                     | 1504                              |
|                                                   | 20                   | 330                              | 25                              | 3,010                                         | 0.10                     | 1320                              |
|                                                   | 25                   | 270                              | 30                              | 2,750                                         | 0.10                     | 1350                              |
|                                                   | 35                   | 120                              | 35                              | 2,550                                         | 0.10                     | 840                               |
|                                                   | 50                   | 82                               | 40                              | 2,380                                         | 0.10                     | 820                               |
|                                                   | 63                   | 68                               | 45                              | 2,240                                         | 0.10                     | 857                               |
|                                                   | 80                   | 47                               | 50                              | 2,130                                         | 0.10                     | 752                               |
|                                                   | 100                  | 22                               | 60                              | 1,940                                         | 0.10                     | 440                               |
| 10×12.5                                           | 16                   | 560                              | 23                              | 3,310                                         | 0.10                     | 1792                              |
|                                                   | 20                   | 470                              | 23                              | 3,310                                         | 0.10                     | 1880                              |
|                                                   | 25                   | 330                              | 28                              | 3,000                                         | 0.10                     | 1650                              |
|                                                   | 35                   | 150                              | 33                              | 2,760                                         | 0.10                     | 1050                              |
|                                                   | 50                   | 120                              | 37                              | 2,610                                         | 0.10                     | 1200                              |
|                                                   | 63                   | 82                               | 42                              | 2,450                                         | 0.10                     | 1033                              |
|                                                   | 80                   | 56                               | 45                              | 2,360                                         | 0.10                     | 896                               |
|                                                   | 100                  | 33                               | 55                              | 2,140                                         | 0.10                     | 660                               |