

# ALUMINUM ELECTROLYTIC CAPACITORS

# UBH

Chip Type, High Temperature Range,  
Vibration Resistance  
Low temperature ESR specification



# TENTATIVE

- Highly dependable reliability withstanding load life of 2000 hours at +150°C.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

**UBH** ← Long Life **UBC**

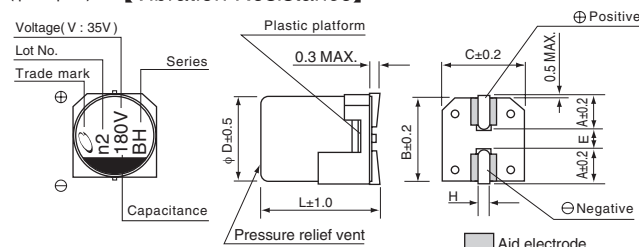


## Specifications

| Item                          | Performance Characteristics   |                 |      |                    |   |
|-------------------------------|---|-----------------|------|--------------------|---|
| Category Temperature Range    | -40 to +150°C   |                 |      |                    |   |
| Rated Voltage Range           | 25 to 35V   |                 |      |                    |   |
| Rated Capacitance Range       | 100 to 270μF  |                 |      |                    |   |
| Capacitance Tolerance         | ±20% at 120Hz, 20°C   |                 |      |                    |   |
| Leakage Current               | After 2 minute's application of rated voltage at 20°C, leakage current is not more than 0.01CV .  |                 |      |                    |   |
| Tangent of loss angle (tan δ) | Rated voltage (V)   | 25              | 35   | 120Hz at 20°C      |   |
|                               | tan δ (MAX.)  | 0.16            | 0.14 |                    |   |
| Stability at Low Temperature  | Rated voltage (V)   | 25              | 35   | 120Hz              |   |
|                               | Impedance ratio ZT/Z20 (MAX.)   | Z-40°C / Z+20°C | 6    |                    |   |
| Endurance                     | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 150°C.  |                 |      | Capacitance change | Within ±40% of the initial capacitance value      |
|                               |   |                 |      | tan δ              | 400% or less than the initial specified value     |
|                               |   |                 |      | Leakage current    | Less than or equal to the initial specified value |
| Shelf Life                    | After storing the capacitors under no load at 150°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. |                 |      |                    |   |
| Resistance to soldering heat  | The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.               |                 |      | Capacitance change | Within ±10% of the initial capacitance value      |
|                               |   |                 |      | tan δ              | Less than or equal to the initial specified value |
|                               |   |                 |      | Leakage current    | Less than or equal to the initial specified value |
| Marking                       | Black print on the case top.  |                 |      |                    |   |

## Chip Type

(φ8, φ10) 【Vibration Resistance】



Type numbering system (Example : 35V 180μF)

|   |   |   |   |   |   |   |   |   |    |    |    |    |             |                              |
|---|---|---|---|---|---|---|---|---|----|----|----|----|-------------|------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14          |                              |
| U | B | H | 1 | V | 1 | 8 | 1 | M | N  | S  | 1  | G  | S           |                              |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Taping code |                              |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             |                              |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Size code                    |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Configuration                |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Capacitance Tolerance (±20%) |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Rated capacitance (180μF)    |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Rated voltage (35V)          |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Series name                  |
|   |   |   |   |   |   |   |   |   |    |    |    |    |             | Type                         |

## Frequency coefficient of rated ripple current

| Frequency   | 120 Hz | 300 Hz | 1 kHz | 10kHz or more |
|-------------|--------|--------|-------|---------------|
| Coefficient | 0.67   | 0.79   | 0.91  | 1.00          |

| Voltage | 25 | 35 |
|---------|----|----|
| Code    | E  | V  |

|   | φ8x10      | φ10x10     |
|---|------------|------------|
| A | 2.9        | 3.2        |
| B | 8.3        | 10.3       |
| C | 8.3        | 10.3       |
| E | 3.1        | 4.5        |
| L | 10         | 10         |
| H | 1.1 to 1.5 | 1.1 to 1.5 |

## 寸法表

| Rated Voltage (V) (code) | Rated Capacitance (μF) | Case Size φD×L (mm) | tan δ | Leakage Current (μA) (at 20°C after 2 minutes) | ESR (Ω) MAX.        |                      | Rated Ripple (mAmps) (150°C/100Hz) | Part Number    |
|--------------------------|------------------------|---------------------|-------|--|---------------------|----------------------|------------------------------------|----------------|
|                          |                        |                     |       |  | Initial 20°C 100kHz | Initial -40°C 100kHz |                                    |                |
| 25 (1E)                  | 150                    | 8×10                | 0.16  | 38   | 0.20                | 4.5                  | 80                                 | UBH1E151MNS1GS |
|                          | 270                    | 10×10               | 0.16  | 68   | 0.15                | 2.0                  | 120                                | UBH1E271MNS1GS |
| 35 (1V)                  | 100                    | 8×10                | 0.14  | 35   | 0.20                | 4.5                  | 80                                 | UBH1V101MNS1GS |
|                          | 180                    | 10×10               | 0.14  | 63   | 0.15                | 2.0                  | 120                                | UBH1V181MNS1GS |

Design, Specifications are subject to change without notice.