Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Performance Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Temperature Range</td>
<td>−55 to +105°C (6.3 to 100V), −40 to +105°C (160 to 400V), −25 to +105°C (450V)</td>
</tr>
<tr>
<td>Rated Voltage Range</td>
<td>6.3 to 450V</td>
</tr>
<tr>
<td>Rated Capacitance Range</td>
<td>0.47 to 33000μF</td>
</tr>
<tr>
<td>Capacitance Tolerance</td>
<td>±20% at 120Hz, 20°C</td>
</tr>
<tr>
<td>Leakage Current</td>
<td></td>
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<tr>
<td>Rated voltage (V)</td>
<td>6.3 to 100</td>
</tr>
<tr>
<td></td>
<td>160 to 450</td>
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<tr>
<td>After 1 minute’s application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.</td>
<td></td>
</tr>
<tr>
<td>After 2 minutes’ application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.</td>
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</tr>
<tr>
<td>Tangent of loss angle (tan δ)</td>
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<tr>
<td>For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.</td>
<td></td>
</tr>
<tr>
<td>Measurement frequency : 120Hz at 20°C</td>
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<tr>
<td>Stability at Low Temperature</td>
<td></td>
</tr>
<tr>
<td>Rated voltage (V)</td>
<td>6.3 to 135</td>
</tr>
<tr>
<td>Impedance ratio</td>
<td>Z-25°C / Z+20°C</td>
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<tr>
<td></td>
<td>Z-40°C / Z+20°C</td>
</tr>
<tr>
<td>Measurement frequency : 120Hz</td>
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<tr>
<td>Endurance</td>
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<tr>
<td>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 (1000 hours for qD = 5.6 and 8 ) at 105°C.</td>
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<tr>
<td>Capcitance change</td>
<td>Within ±20% of the initial capacitance value</td>
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<tr>
<td>tan δ (MAX.)</td>
<td>200% or less than the initial specified value</td>
</tr>
<tr>
<td>Leakage current</td>
<td>Less than or equal to the initial specified value</td>
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<tr>
<td>Shelf Life</td>
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<tr>
<td>After storing the capacitors under no load at 105°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.</td>
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<tr>
<td>Marking</td>
<td></td>
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<td>Printed with white color letter on black sleeve.</td>
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Radial Lead Type

Type numbering system (Example : 10V 330μF)

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

Frequency coefficient of rated ripple current

- Dimension table in next page.
# ALUMINUM ELECTROLYTIC CAPACITORS

## UVY

### Stability at Low Temperature


### Radial Lead Type Type numbering system (Example: 10V 330µF)

<table>
<thead>
<tr>
<th>Rated Voltage (V)</th>
<th>Rated Capacitance (µF)</th>
<th>Case Size øD x L (mm)</th>
<th>tan δ</th>
<th>Leakage Current (µA) at 20℃ after 1 minute</th>
<th>Leakage Current (µA) at 20℃ after 2 minutes</th>
<th>Rated Ripple (mAms) (105℃/120Hz)</th>
<th>Part Number</th>
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<td>630</td>
<td>1650</td>
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<td>945</td>
<td>1820</td>
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</table>

| 10 (1A)           | 220                    | 5 x 11                 | 0.24  | 66                                        | 22                                       | 155                             | UVY1A221MDD    |
|                   | 330                    | 6.3 x 11               | 0.24  | 99                                        | 33                                       | 210                             | UVY1A331MED     |
|                   | 470                    | 6.3 x 11               | 0.24  | 141                                       | 47                                       | 250                             | UVY1A471MED     |
|                   | 1000                   | 10 x 12.5              | 0.24  | 300                                       | 100                                      | 460                             | UVY1A102MPD     |
|                   | 2200                   | 10 x 16                | 0.26  | 660                                       | 220                                      | 705                             | UVY1A222MPD     |
|                   | 3300                   | 12.5 x 20              | 0.28  | 990                                       | 330                                      | 1000                            | UVY1A332MHD     |
|                   | 4700                   | 12.5 x 25              | 0.30  | 1410                                      | 470                                      | 1260                            | UVY1A472MHD     |
|                   | 6800                   | 16 x 25                | 0.34  | 2040                                      | 680                                      | 1570                            | UVY1A682MHD     |
|                   | 10000                  | 16 x 31.5              | 0.42  | 3000                                      | 1000                                     | 1820                            | UVY1A103MHD     |
|                   | 15000                  | 16 x 35.5              | 0.52  | 4500                                      | 1500                                     | 2050                            | UVY1A153MHD     |
|                   | 22000                  | 18 x 40                | 0.66  | 6600                                      | 2200                                     | 2420                            | UVY1A223MHD     |
|                   | 33000                  | 22 x 50                | 0.88  | 9900                                      | 3300                                     | 3210                            | UVY1A333MRD     |

| 16 (1C)           | 220                    | 6.3 x 11               | 0.20  | 105.6                                     | 35.2                                     | 190                             | UVY1C221MED     |
|                   | 330                    | 6.3 x 11               | 0.20  | 158.4                                     | 52.8                                     | 225                             | UVY1C331MED     |
|                   | 470                    | 8 x 11.5               | 0.20  | 225.6                                     | 75.2                                     | 315                             | UVY1C471MPD     |
|                   | 1000                   | 10 x 12.5              | 0.20  | 480                                       | 160                                      | 500                             | UVY1C102MPD     |
|                   | 2200                   | 10 x 20                | 0.22  | 1056                                      | 352                                      | 710                             | UVY1C222MPD     |
|                   | 3300                   | 12.5 x 25              | 0.24  | 1584                                      | 528                                      | 1170                            | UVY1C332MHD     |
|                   | 4700                   | 16 x 25                | 0.26  | 2256                                      | 752                                      | 1500                            | UVY1C472MHD     |
|                   | 6800                   | 16 x 25                | 0.30  | 3264                                      | 1088                                     | 1600                            | UVY1C682MHD     |
|                   | 10000                  | 16 x 35.5              | 0.38  | 4800                                      | 1600                                     | 1930                            | UVY1C103MHD     |
|                   | 15000                  | 18 x 40                | 0.48  | 7200                                      | 2400                                     | 2210                            | UVY1C153MHD     |
|                   | 22000                  | 22 x 40                | 0.62  | 10560                                     | 3520                                     | 2710                            | UVY1C223MRD     |
|                   | 33000                  | 25 x 50                | 0.84  | 15840                                     | 5280                                     | 3450                            | UVY1C333MRD     |

| 25 (1E)           | 100                    | 5 x 11                 | 0.16  | 75                                        | 25                                       | 125                             | UVY1E101MDD     |
|                   | 220                    | 6.3 x 11               | 0.16  | 165                                       | 55                                       | 200                             | UVY1E221MED     |
|                   | 330                    | 8 x 11.5               | 0.16  | 247.5                                     | 82.5                                     | 275                             | UVY1E331MDD     |
|                   | 470                    | 10 x 12.5              | 0.16  | 352.5                                     | 117.5                                    | 380                             | UVY1E471MPD     |
|                   | 1000                   | 10 x 16                | 0.16  | 750                                       | 250                                      | 610                             | UVY1E102MPD     |
|                   | 2200                   | 12.5 x 25              | 0.18  | 1650                                      | 550                                      | 1090                            | UVY1E222MHD     |
|                   | 3300                   | 16 x 25                | 0.20  | 2475                                      | 825                                      | 1400                            | UVY1E332MHD     |
|                   | 4700                   | 16 x 25                | 0.22  | 3525                                      | 1175                                     | 1570                            | UVY1E472MHD     |
|                   | 6800                   | 16 x 35.5              | 0.26  | 5100                                      | 1700                                     | 1850                            | UVY1E682MHD     |
|                   | 10000                  | 18 x 40                | 0.34  | 7500                                      | 2500                                     | 2000                            | UVY1E103MHD     |
|                   | 15000                  | 22 x 50                | 0.44  | 11250                                     | 3750                                     | 2750                            | UVY1E153MRD     |
|                   | 22000                  | 25 x 50                | 0.58  | 16500                                     | 5500                                     | 3250                            | UVY1E223MRD     |

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.
### ALUMINUM ELECTROLYTIC CAPACITORS

#### UVY

**Dimensions**

<table>
<thead>
<tr>
<th>Rated Voltage (V) (V code)</th>
<th>Rated Capacity (µF)</th>
<th>Case Size D×L (mm) tan δ</th>
<th>Leakage Current at 20°C after 1 minute (µA)</th>
<th>Leakage Current at 20°C after 2 minutes (µA)</th>
<th>Rated Ripple (mAms) at 105°C/120Hz</th>
<th>Part Number</th>
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</thead>
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For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).

If there is no size code in the part number, please add size code “1” and then add the appropriate code.
## Dimensions

<table>
<thead>
<tr>
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<th>Rated Capacitance (µF)</th>
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For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.
## Dimensions

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<th>Rated Capacitance (µF)</th>
<th>Case Size (D×L (mm))</th>
<th>tan δ</th>
<th>Leakage Current (µA)</th>
<th>Rated Ripple (mAmrs) (105°C/120Hz)</th>
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For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit). If there is no size code in the part number, please add size code “1” and then add the appropriate code.

For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.