

ALUMINUM ELECTROLYTIC CAPACITORS

UN series Chip Type, Bi-Polarized, Higher Capacitance Range



- Chip Type, higher capacitance in larger case sizes ($\phi 12.5$, $\phi 16$, $\phi 18$, $\phi 20$)
- Designed for surface mounting on high density PC board.
- Bi-polarized series for operations over wide temperature range of -55 to $+105^{\circ}\text{C}$.
- Applicable to automatic mounting machine fed with carrier tape and tray.
- Compliant to the RoHS directive (2011/65/EU).

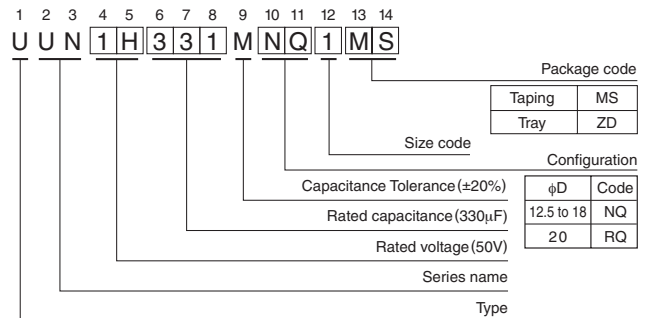
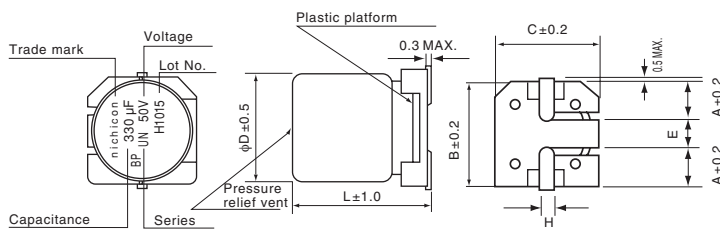


Specifications

Item	Performance Characteristics																											
Category Temperature Range	-55 to $+105^{\circ}\text{C}$																											
Rated Voltage Range	6.3 to 100V																											
Rated Capacitance Range	22 to 3300 μF																											
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C																											
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than $0.03\text{C}\text{V}$ or 4 (μA), whichever is greater.																											
Tangent of loss angle ($\tan \delta$)	<p>Measurement frequency : 120Hz at 20°C</p> <table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>$\tan \delta$ (MAX.)</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> </tr> </table> <p>For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.</p>	Rated voltage (V)	6.3	10	16	25	35	50	63	100	$\tan \delta$ (MAX.)	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.09									
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Stability at Low Temperature	<p>Measurement frequency: 120Hz</p> <table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Impedance ratio</td> <td>Z-25°C / Z$+20^{\circ}\text{C}$</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT / Z20 (MAX.)</td> <td>Z-40°C / Z$+20^{\circ}\text{C}$</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	63	100	Impedance ratio	Z -25°C / Z $+20^{\circ}\text{C}$	5	4	3	2	2	2	2	ZT / Z20 (MAX.)	Z -40°C / Z $+20^{\circ}\text{C}$	10	8	6	4	3	3	3
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Endurance	<p>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 105°C with the polarity inverted every 250 hours.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within $\pm 20\%$ of the initial capacitance value</td> </tr> <tr> <td>$\tan \delta$</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> </tr> </table>	Capacitance change	Within $\pm 20\%$ of the initial capacitance value	$\tan \delta$	200% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value																					
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Shelf Life	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.																											
Marking	Black print on the case top.																											

Chip Type

Type numbering system (Example : 50V 330 μF)



(mm)

ϕD	12.5×13.5	12.5×16	16×16.5	16×21.5	18×16.5	18×21.5	20×21.5
A	4.8	4.8	5.4	5.4	6.4	6.4	6.2
B	13.6	13.6	17.1	17.1	19.1	19.1	21.1
C	13.6	13.6	17.1	17.1	19.1	19.1	21.1
E	4.0	4.0	6.3	6.3	6.3	6.3	8.8
L	13.5	16.0	16.5	21.5	16.5	21.5	21.5
H	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.3 to 1.7

※ The vibration structure-resistant product is also available upon request, please ask for details.

● Dimension table in next page.

