

# ALUMINUM ELECTROLYTIC CAPACITORS

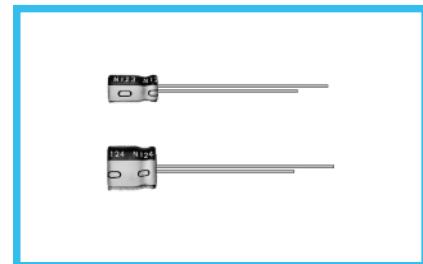
nichicon

**SF** 7mmL, Low Impedance  
series



- Low impedance over wide temperature range of  $-55$  to  $+105^{\circ}\text{C}$ , with 7mm height.
- Compliant to the RoHS directive (2011/65/EU).

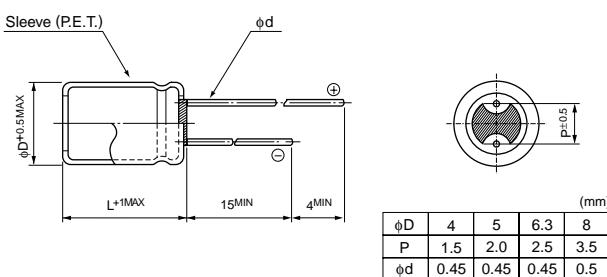
**SF** ST



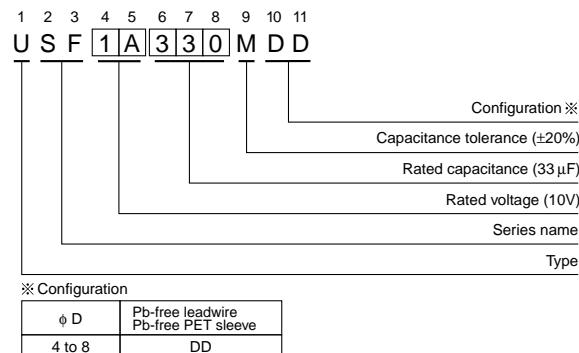
## ■ Specifications

Item	Performance Characteristics																													
Category Temperature Range	$-55$ to $+105^{\circ}\text{C}$																													
Rated Voltage Range	6.3 to 35V																													
Rated Capacitance Range	6.8 to 220 $\mu\text{F}$																													
Capacitance Tolerance	$\pm 20\%$ at 120Hz, $20^{\circ}\text{C}$																													
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3( $\mu\text{A}$ ), whichever is greater.																													
Tangent of loss angle (tan $\delta$ )	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> </tr> </thead> <tbody> <tr> <td>tan <math>\delta</math> (MAX.)</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> </tr> </tbody> </table>						Rated voltage (V)	6.3	10	16	25	35	tan $\delta$ (MAX.)	0.18	0.16	0.14	0.12	0.12												
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Endurance	<p>The specifications listed at right shall be met when the capacitors are restored to <math>20^{\circ}\text{C}</math> after the rated voltage is applied for 1000 hours at <math>105^{\circ}\text{C}</math>.</p> <table border="1"> <thead> <tr> <th>Capacitance change</th> <th>Within <math>\pm 20\%</math> of the initial capacitance value</th> </tr> </thead> <tbody> <tr> <td>tan <math>\delta</math></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> </tbody> </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 $105^{\circ}\text{C}$ for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at $20^{\circ}\text{C}$ , they shall meet the specified values for the endurance characteristics listed above.																													
Marking	Printed with white color letter on dark brown sleeve.																													

## ■ Radial Lead Type



## Type numbering system (Example : 10V 33 $\mu\text{F}$ )



## ■ Dimensions

Cap. ( $\mu\text{F}$ ) \ V	Code	6.3			10			16			25			35				
		0J	1A	1C	1E	1V	4 x 7	3.3	70	5 x 7	1.7	110	5 x 7	1.7	110	6.3 x 7	0.8	160
6.8	6R8															4 x 7	3.3	70
10	100															5 x 7	1.7	110
15	150															6.3 x 7	0.8	160
22	220						4 x 7	3.3	70	5 x 7	1.7	110	5 x 7	1.7	110	6.3 x 7	0.8	160
33	330	5 x 7	1.7	110	5 x 7	1.7	110	6.3 x 7	0.8	160	6.3 x 7	0.8	160	8 x 7	0.5	200		
47	470	5 x 7	1.7	110	6.3 x 7	0.8	160	6.3 x 7	0.8	160	8 x 7	0.5	200					
68	680	6.3 x 7	0.8	160	6.3 x 7	0.8	160	8 x 7	0.5	200	8 x 7	0.5	200					
100	101	6.3 x 7	0.8	160	8 x 7	0.5	200	8 x 7	0.5	200								
150	151	8 x 7	0.5	200	8 x 7	0.5	200									Case size phi D x L (mm)	Impe- diance	Rated ripple
220	221	8 x 7	0.5	200														

Max. Impedance ( $\Omega$ ) at  $20^{\circ}\text{C}$  100kHz  
Rated ripple current (mAmps) at  $105^{\circ}\text{C}$  100kHz

## ● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.35	0.50	0.64	0.83	1.00

Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

CAT.8100C