

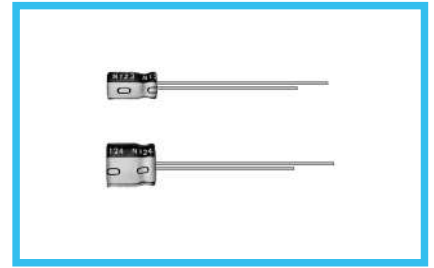
# ALUMINUM ELECTROLYTIC CAPACITORS

**SF** 7mmL, Low Impedance series



- Low impedance over wide temperature range of -55 to +105°C, with 7mm height.
- Compliant to the RoHS directive (2002/95/EC).

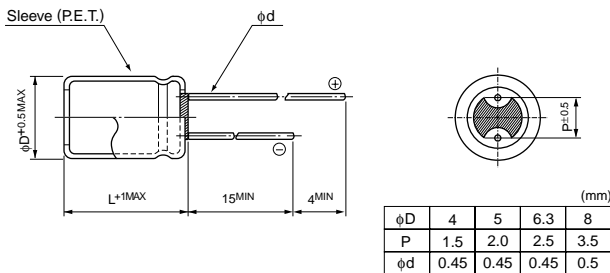
**SF** ← Low Impedance **ST**



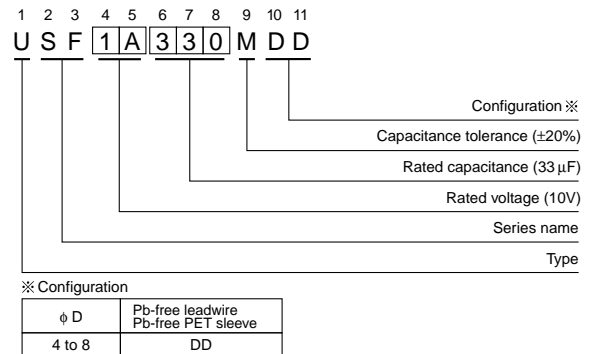
## Specifications

Item	Performance Characteristics										
Category Temperature Range	-55 to +105°C										
Rated Voltage Range	6.3 to 35V										
Rated Capacitance Range	6.8 to 220μF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3(μA), whichever is greater.										
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C										
	Rated voltage (V)	6.3	10	16	25	35					
Stability at Low Temperature	Measurement frequency : 120Hz										
	Rated voltage (V)		6.3	10	16	25	35				
	Impedance ratio	Z-25°C / Z+20°C	2	2	2	2	2				
Endurance	ZT / Z20 (MAX.)		Z-55°C / Z+20°C	3	3	3	3				
	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.		<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</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 ±20% of the initial capacitance value	tan δ	200% or less than the initial specified value	Leakage current
Capacitance change	Within ±20% of the initial capacitance value										
tan δ	200% 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 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	Printed with white color letter on dark brown sleeve.										

## Radial Lead Type



## Type numbering system (Example : 10V 33μF)



## Dimensions

Cap.(μF)	V	6.3			10			16			25			35		
		Code	0J		1A		1C		1E		1V					
6.8	6R8															
10	100															
15	150							4 × 7	3.3	70	4 × 7	3.3	70	4 × 7	3.3	70
22	220				4 × 7	3.3	70	5 × 7	1.7	110	5 × 7	1.7	110	6.3 × 7	0.8	160
33	330	5 × 7	1.7	110	5 × 7	1.7	110	6.3 × 7	0.8	160	6.3 × 7	0.8	160	8 × 7	0.5	200
47	470	5 × 7	1.7	110	6.3 × 7	0.8	160	6.3 × 7	0.8	160	8 × 7	0.5	200			
68	680	6.3 × 7	0.8	160	6.3 × 7	0.8	160	8 × 7	0.5	200	8 × 7	0.5	200			
100	101	6.3 × 7	0.8	160	8 × 7	0.5	200	8 × 7	0.5	200						
150	151	8 × 7	0.5	200	8 × 7	0.5	200									
220	221	8 × 7	0.5	200												
													Case size	Impe-	Rated	
													φD × L (mm)	dance	ripple	

Max. Impedance (Ω) at 20°C 100kHz  
 Rated ripple current (mArms) at 105°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.