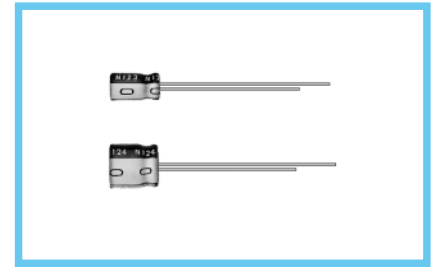


**SF** 7mmL, Low Impedance series



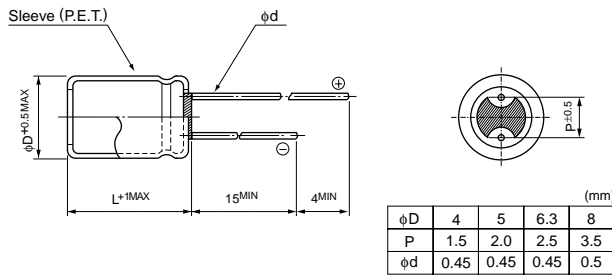
- Low impedance over wide temperature range of  $-55 \sim +105^{\circ}\text{C}$ , with 7mm height.
- Adapted to the RoHS directive (2002/95/EC).



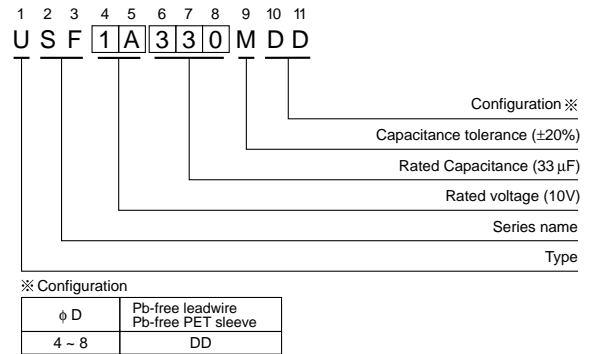
## Specifications

Item	Performance Characteristics					
Category Temperature Range	$-55 \sim +105^{\circ}\text{C}$					
Rated Voltage Range	6.3 ~ 35V					
Rated Capacitance Range	6.8 ~ 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.					
tan $\delta$	Measurement frequency : 120Hz, Temperature : $20^{\circ}\text{C}$					
	Rated voltage (V)	6.3	10	16	25	35
	tan $\delta$ (MAX.)	0.18	0.16	0.14	0.12	0.12
Stability at Low Temperature	Measurement frequency : 120Hz					
	Rated voltage (V)	6.3	10	16	25	35
	Impedance ratio ZT / Z20 (MAX.)	Z $-25^{\circ}\text{C}$ / Z $+20^{\circ}\text{C}$ Z $-55^{\circ}\text{C}$ / Z $+20^{\circ}\text{C}$	2 3	2 3	2 3	2 3
Endurance	After 1000 hours' application of rated voltage at $105^{\circ}\text{C}$ , capacitors meet the characteristic requirements listed at right.	Capacitance change	Within $\pm 20\%$ of initial value			
		tan $\delta$	200% or less of initial specified value			
		Leakage current	Initial specified value or less			
Shelf Life	After storing the capacitors under no load at $105^{\circ}\text{C}$ for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at $20^{\circ}\text{C}$ , they will meet the specified value for 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. ( $\mu\text{F}$ )	Code	6.3			10			16			25			35					
		0J			1A			1C			1E			1V					
6.8	6R8													4 × 7	3.3	70			
10	100											4 × 7	3.3	70	5 × 7	1.7	110		
15	150							4 × 7	3.3	70	5 × 7	1.7	110	5 × 7	1.7	110	6.3 × 7	0.8	160
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	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	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	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															

Max. Impedance ( $\Omega$ ) at  $20^{\circ}\text{C}$  100kHz  
 Rated Ripple (mA rms) at  $105^{\circ}\text{C}$  100kHz

## Frequency coefficient of rated ripple current

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

Please refer to page 21, 22, 23 about the formed or taped product spec.  
 Please refer to page 3 for the minimum order quantity.