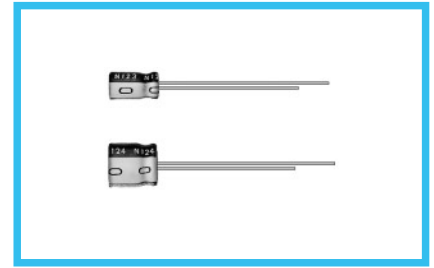


**SF** 7mmL, Low Impedance  
series



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

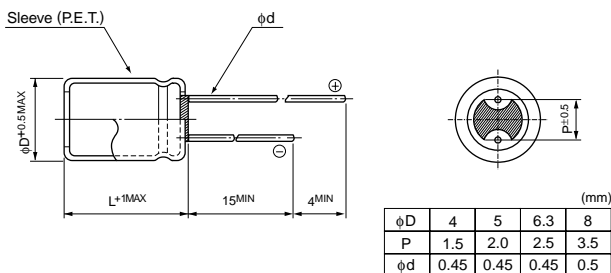
SF  $\leftarrow$  Low Impedance ST



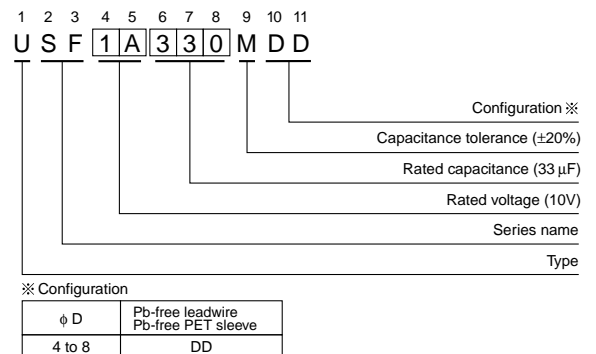
## Specifications

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	
	tan δ (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	Z-25°C / Z+20°C	2	2	2	2	2
	ZT / Z20 (MAX.)	Z-55°C / Z+20°C	3	3	3	3	3
Endurance	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.			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 33 $\mu\text{F}$ )



## Dimensions

V		6.3			10			16			25			35		
Cap.(μF)	Code	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	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	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							Case size φD × L (mm)	Impe- dance	Rated ripple
220	221	8 × 7	0.5	200												

Max. Impedance ( $\Omega$ ) at  $20^{\circ}\text{C}$  100kHz  
Rated ripple current (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 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.8100Z