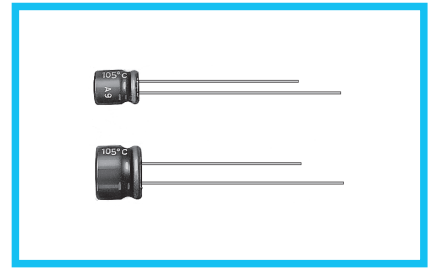


# UMF

5mmL, Low Impedance



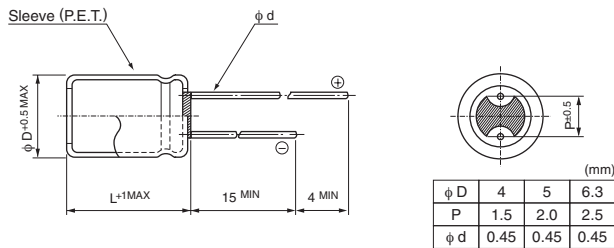
- Low impedance over wide temperature range of  $-55$  to  $+105^{\circ}\text{C}$ , with 5mm height.
- Suited for DC-DC converters where smaller case size and lower impedance are required.
- Compliant to the RoHS directive (2011/65/EU).



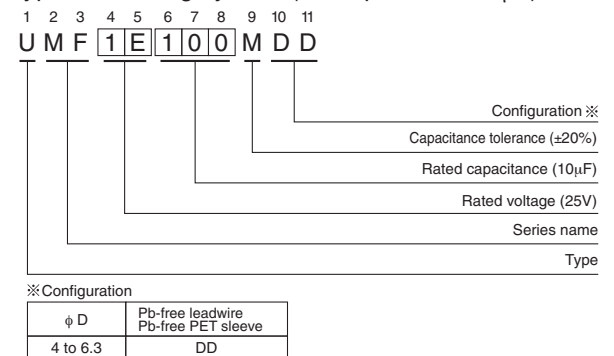
## Specifications

Item	Performance Characteristics					
Category Temperature Range	$-55$ to $+105^{\circ}\text{C}$					
Rated Voltage Range	6.3 to 35V					
Rated Capacitance Range	1 to $100\mu\text{F}$					
Rated Capacitance Tolerance	$\pm 20\%$ at 120Hz, $20^{\circ}\text{C}$					
Leakage Current	After 2 minutes' application of rated voltage at $20^{\circ}\text{C}$ , leakage current is not more than $0.01\text{CV}$ or $3(\mu\text{A})$ , whichever is greater.					
Tangent of loss angle (tan $\delta$ )	Measurement frequency : 120Hz at $20^{\circ}\text{C}$					
	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 ZT / Z20 (MAX.)	Z- $25^{\circ}\text{C}$ / Z+ $20^{\circ}\text{C}$	2	2	2	2
Endurance	The specifications listed at right shall be met when the capacitors are restored to $20^{\circ}\text{C}$ after the rated voltage is applied for 1000 hours at $105^{\circ}\text{C}$ .					
	Capacitance change	Within $\pm 20\%$ of the initial capacitance value				
	tan $\delta$	200% or less than the initial specified value				
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.					
	Leakage current	Less than or equal to the initial specified value				
Marking	Printed with white color letter on dark brown sleeve.					

## Radial Lead Type



## Type numbering system (Example : 25V $10\mu\text{F}$ )



## Dimensions

Cap. ( $\mu\text{F}$ )	Code	6.3			10			16			25			35		
		0J			1A			1C			1E			1V		
1	010													4 × 5	5.0	50
1.5	1R5													4 × 5	5.0	50
2.2	2R2													4 × 5	5.0	50
3.3	3R3													4 × 5	5.0	50
4.7	4R7										4 × 5	5.0	50	4 × 5	5.0	50
6.8	6R8										4 × 5	5.0	50	5 × 5	2.6	80
10	100							4 × 5	5.0	50	5 × 5	2.6	80	5 × 5	2.6	80
15	150							5 × 5	2.6	80	5 × 5	2.6	80	6.3 × 5	1.3	115
22	220	4 × 5	5.0	50	5 × 5	2.6	80	5 × 5	2.6	80	6.3 × 5	1.3	115	6.3 × 5	1.3	115
33	330	5 × 5	2.6	80	5 × 5	2.6	80	6.3 × 5	1.3	115	6.3 × 5	1.3	115			
47	470	5 × 5	2.6	80	6.3 × 5	1.3	115	6.3 × 5	1.3	115						
68	680	6.3 × 5	1.3	115												
100	101	6.3 × 5	1.3	115										Case size $\phi D \times L$ (mm)	Impedance	Rated ripple

## 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

Max. Impedance ( $\Omega$ ) at  $20^{\circ}\text{C}$  100kHz  
 Rated ripple current (mArms) at  $105^{\circ}\text{C}$  100kHz  
 Please refer to page 20, 21, 22 about the formed or taped product spec.  
 Please refer to page 4 for the minimum order quantity.