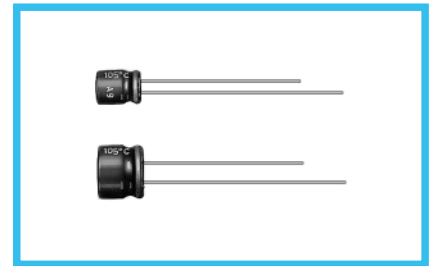


ALUMINUM ELECTROLYTIC CAPACITORS

MF 5mmL, Low Impedance series



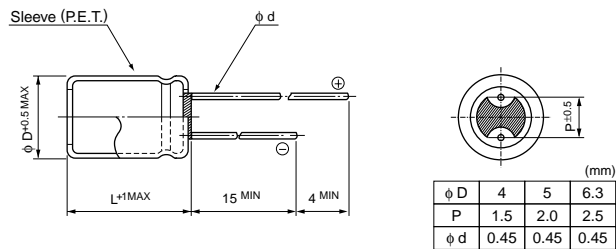
- Low impedance over wide temperature range of -55 to +105°C, with 5mm height.
- Suited for DC-DC converters where smaller case size and lower impedance are required.
- Compliant to the RoHS directive (2011/65/EU).



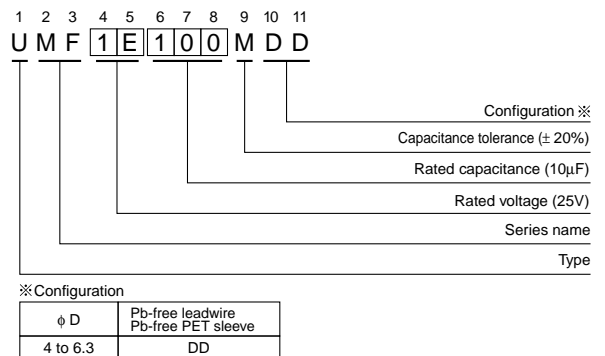
Specifications

Item	Performance Characteristics																			
Category Temperature Range	-55 to +105°C																			
Rated Voltage Range	6.3 to 35V																			
Rated Capacitance Range	1 to 100μF																			
Rated 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 at 20°C																			
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.22</td> <td>0.20</td> <td>0.18</td> <td>0.14</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	tan δ (MAX.)	0.22	0.20	0.18	0.14	0.12							
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Stability at Low Temperature	Measurement frequency : 120Hz																			
	<table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td rowspan="2">Impedance ratio ZT / Z20 (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-55°C / Z+20°C</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)		6.3	10	16	25	35	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	2	2	2	2	2	Z-55°C / Z+20°C	4	4	3	3
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Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	2	2	2	2	2														
	Z-55°C / Z+20°C	4	4	3	3	3														
Endurance	<p>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.</p> <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	Less than or equal to the initial specified value													
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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 : 25V 10μF)



Dimensions

Cap. (μF)	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	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	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	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															

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.