

# ALUMINUM ELECTROLYTIC CAPACITORS

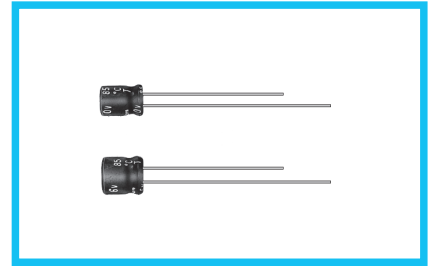
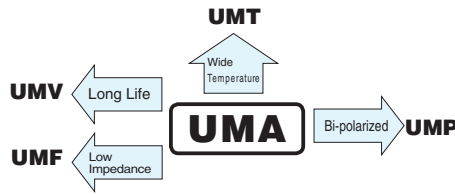
# UMA

5mmL, Standard, For General Purposes



Anti-Solvent Feature

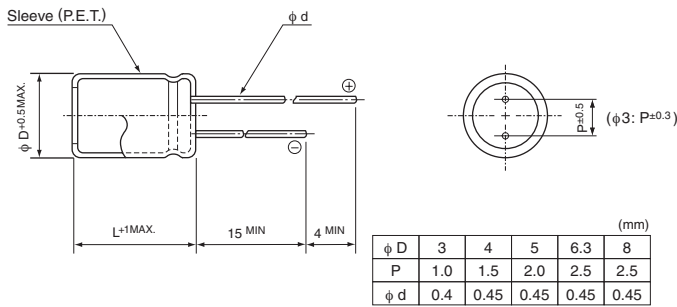
- Standard series with 5mm height.
- Compliant to the RoHS directive (2011/65/EU).



## Specifications

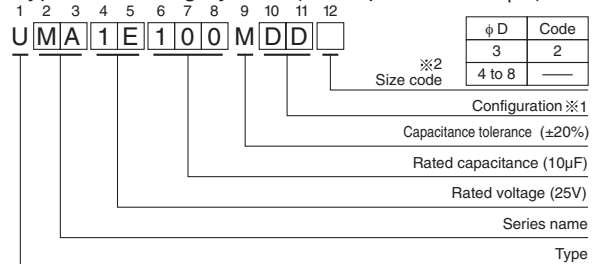
Item	Performance Characteristics																										
Category Temperature Range	-40 to +85°C																										
Rated Voltage Range	4 to 50V																										
Rated Capacitance Range	1 to 470μF																										
Rated Capacitance Tolerance	±20% at 120Hz, 20°C																										
Leakage Current	After 2 minutes' application of rated voltage at 20°C, 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>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td rowspan="2">Figures in ( ) are for UMR.</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.35</td> <td>0.24 (0.30)</td> <td>0.20 (0.24)</td> <td>0.16 (0.20)</td> <td>0.14 (0.18)</td> <td>0.12 (0.16)</td> <td>0.10 (0.13)</td> </tr> </table>	Rated voltage (V)	4	6.3	10	16	25	35	50	Figures in ( ) are for UMR.	tan δ (MAX.)	0.35	0.24 (0.30)	0.20 (0.24)	0.16 (0.20)	0.14 (0.18)	0.12 (0.16)	0.10 (0.13)									
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Stability at Low Temperature	Measurement frequency : 120Hz																										
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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 2000 hours at 85°C.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value (UMR &amp; φ3 product : Within ±25%)</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 (UMR & φ3 product : Within ±25%)	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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Shelf Life	After storing the capacitors under no load at 85°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 black sleeve.																										

## Radial Lead Type



● Please refer to page 20 about the end seal configuration.

## Type numbering system (Example : 25V 10μF)



※ 1 Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
3	CD
4 to 8	DD

※ 2 In case at φ 3 units, put [2] as size code.

## Dimensions

Cap. (μF)	Code	4		6.3		10		16		25		35		50	
		0G		0J		1A		1C		1E		1V		1H	
1	010														4×5(3×5) 8.4(8.0)
2.2	2R2														● 4×5 13(10)
3.3	3R3									3×5 10		● 4×5 15(10)			4×5 17
4.7	4R7								3×5 10	● 4×5 16(12)		4×5 18			5×5 20
10	100			3×5 15					● 4×5 23(18)	5×5 27		5×5 29			6.3×5 33
22	220	3×5 19		● 4×5 28(21)		5×5 33		5×5 37	6.3×5 42	6.3×5 46		6.3×5 46			□ 8×5 52(48)
33	330	4×5 28		5×5 37		5×5 41		○ 6.3×5 49(43)	6.3×5 52	□ 8×5 62(52)		8×5 60			8×5 71
47	470	4×5 33		5×5 45		○ 6.3×5 52(43)		6.3×5 58	□ 8×5 70(62)	8×5 80					
100	101	5×5 56		○ 6.3×5 70(68)		□ 8×5 80(76)		□ 8×5 92(86)	8×5 110						
220	221	6.3×5 96		□ 8×5 110(90)		8×5 135									
330	331	8×5 145		8×5 170											
470	471	8×5 185													Case size φD×L (mm) Rated ripple

Size φ3×5 is available for capacitors marked. \*●\*/ Size φ5×5 is available for capacitors marked. \*b" Size φ6.3×5 is available for capacitors marked. \*□" In such a case, [M][R] will be put at 2nd and 3rd digit of type numbering system.

Rated ripple current (mA rms) at 85°C 120Hz ( ) = φ3 units and UMR.

## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

Please refer to page 20, 21, 22 about the formed or taped product spec. Please refer to page 4 for the minimum order quantity.

# Mouser Electronics

Authorized Distributor

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## Nichicon:

[UMA0G101MDD](#) [UMA0G220MCD2](#) [UMA0J100MCD2](#) [UMA0J101MDD](#) [UMA1A221MDD](#) [UMA1A221MDD1TP](#)  
[UMA1A330MDD](#) [UMA1C4R7MCD2TP](#) [UMA1E100MDD](#) [UMA1E101MDD](#) [UMA0G331MDD](#) [UMA0G470MDD](#)  
[UMA0G471MDD](#) [UMA1A101MDD](#) [UMA1A220MDD](#) [UMA1A220MDD1TE](#) [UMA1C330MDD](#) [UMA1C470MDD](#)  
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[UMA0J331MDD](#) [UMA0J470MDD](#) [UMA1C101MDD](#) [UMA1C220MDD](#) [UMA1C220MDD1TP](#) [UMA0J220MDD](#)  
[UMA0J221MDD](#) [UMA1A470MDD](#) [UMA1A470MDD1TP](#) [UMA1C100MDD](#) [UMA1C100MDD1TE](#) [UMA1C100MDD1TP](#)  
[UMA1E220MDD](#) [UMA1E330MDD](#) [UMA1C100MCD2](#) [UMA0G330MDD1TP](#) [UMA0J221MDD1TP](#) [UMA0G470MDD1TP](#)  
[UMA0G471MDD1TP](#) [UMA0J330MDD1TP](#) [UMA0G331MDD1TP](#) [UMA1E101MDD1TP](#) [UMA0G101MDD1TP](#)  
[UMA0J470MDD1TP](#) [UMA0G220MCD2TP](#) [UMA0J100MCD2TP](#) [UMA0J101MDD1TP](#) [UMA1A101MDD1TP](#)  
[UMA1E100MDD1TP](#) [UMA1A220MDD1TP](#) [UMA0J331MDD1TP](#) [UMA0J220MDD1TP](#) [UMA1C330MDD1TP](#)  
[UMA1C101MDD1TP](#) [UMA1A330MDD1TP](#) [UMA1H010MDD2TP](#) [UMA1H0R1MDD2TP](#) [UMA1HR22MDD2TP](#)  
[UMA1HR33MDD2TP](#) [UMA1H010MCD2TP](#) [UMA1E220MDD1TP](#) [UMA1C470MDD1TP](#) [UMA1H010MCD2](#)  
[UMA0J101MDD1TE](#) [UMA1E101MDD1TE](#) [UMA0G470MDD1TE](#) [UMA0J221MDD1TE](#)