

# ALUMINUM ELECTROLYTIC CAPACITORS

查询UMEL0470MDD供应商

捷多邦，专业PCB打样工厂，24小时加急出货 nichicon

**ML**

5mmL, Low Leakage Current



- Low leakage current series with 5mm height.
- Adapted to the RoHS directive (2002/95/EC).

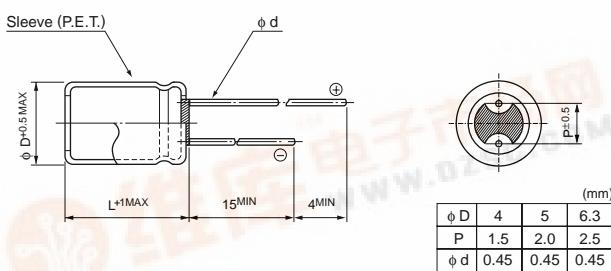
MA → **ML**



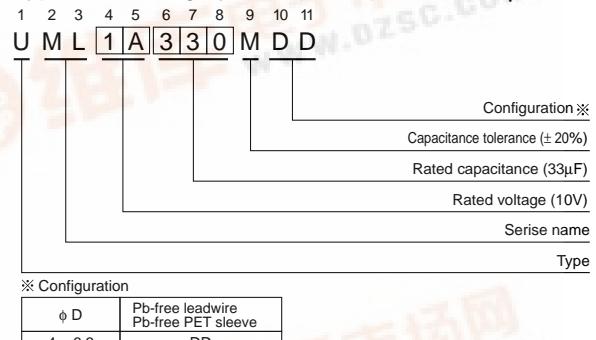
## ■ Specifications

Item	Performance Characteristics												
Category Temperature Range	-40 ~ +85°C												
Rated Voltage Range	4 ~ 50V												
Rated Capacitance Range	0.1 ~ 100μF												
Rated Capacitance Tolerance	±20% at 120Hz, 20°C												
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.002CV or 0.4 (μA), whichever is greater.												
tan δ	Measurement frequency : 120Hz, Temperature : 20°C												
	Rated voltage (V)	4	6.3	10	16	25	35	50					
	tan δ (MAX.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10					
Stability at Low Temperature	Measurement frequency : 120Hz												
	Rated voltage (V)	4	6.3	10	16	25	35	50					
	Impedance ratio Z-25°C / Z+20°C	7	4	3	2	2	2	2					
	ZT / Z20 (MAX.) Z-40°C / Z+20°C	15	10	8	6	4	3	3					
Endurance	After 1000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.				Capacitance change	Within ±20% of initial value							
		tan δ	200% or less of initial specified value			Leakage current	Initial specified value or less						
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.												
Marking	Printed with white color letter on black sleeve.												

## ■ Radial Lead Type



## Type numbering system (Example : 10V 33μF)



## ■ Dimensions

Cap.(μF)	V	4	6.3	10	16	25	35	50
Code	0G	0J	1A	1C	1E	1V	1H	
0.1	0R1							4×5 1.0
0.22	R22							4×5 2.0
0.33	R33							4×5 2.8
0.47	R47							4×5 4.0
1	010							4×5 8.4
2.2	2R2							4×5 13
3.3	3R3							5×5 17
4.7	4R7							5×5 20
10	100					4×5 23	16	4×5 18
22	220		4×5 28	5×5 33	5×5 37	5×5 42	6.3×5 46	
33	330	5×5 28	5×5 37	5×5 41	6.3×5 49	6.3×5 52		
47	470	5×5 33	5×5 45	6.3×5 52	6.3×5 58			
100	101	6.3×5 56	6.3×5 70					Case size $\phi D \times L$ (mm) Rated ripple

Rated Ripple (mA rms) at 85°C 120Hz

## Frequency coefficient of rated ripple current

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

Please refer to page 21, 22, 23 about the formed or taped product spec.