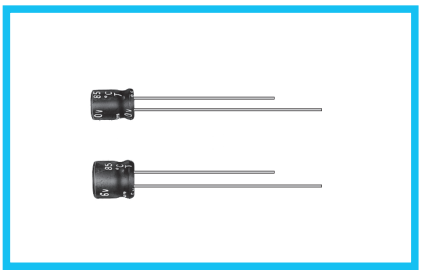
nichicon

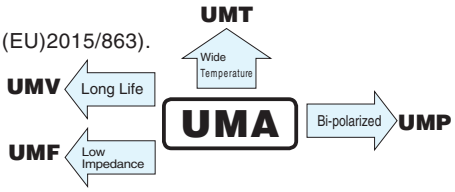
UMA

5mmL, Standard, For General Purposes

Anti-Solvent Feature



- Standard series with 5mm height.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



■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

Rated voltage (V)	4	6.3	10	16	25	35	50
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)

Figures in ( ) are for UMR.

Stability at Low Temperature — Measurement frequency : 120Hz

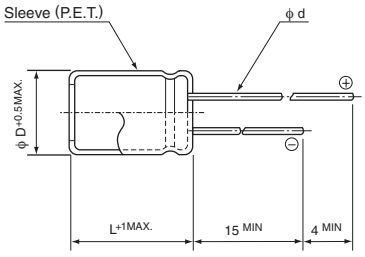
Rated voltage (V)		4	6.3	10	16	25	35	50
Impedance ratio (MAX.)	Z−25°C / Z+20°C	7	4	3	2	2	2	2
	Z−40°C / Z+20°C	15	8	6	4	4	3	3

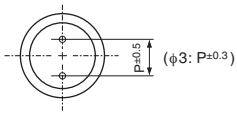
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.

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

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





(mm)

φ D	3	4	5	6.3	8
P	1.0	1.5	2.0	2.5	2.5
φ d	0.4	0.45	0.45	0.45	0.45

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

Type numbering system (Example : 25V 10μF)

1 2 3 4 5 6 7 8 9 10 11 12

U M A 1 E 1 0 0 M D D [ ]

φ D	Code
3	2
4 to 8	——

※2 Size code

Configuration ※1

Capacitance tolerance (±20%)

Rated capacitance (10μF)

Rated voltage (25V)

Series name

Type

※1 Configuration

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

※ 2 In case at φ3 units, put 2 as size code.

■Dimensions

Cap.(μF) \ V	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											3×5	8.4	● 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	□ 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	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									Case size φD×L (mm)	Rated ripple
470	471	8×5	185												

Size φ3 × 5 is available for capacitors marked. "●"/ Size φ5 × 5 is available for capacitors marked. "○"
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 (mArms) 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.