

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## UA & UB series

### Features

By using Aluminum Functional Polymer.

- Low ESR at a high frequency range.
- High ripple current capability.

### Applications

- Switching Power Supply and DC/DC Converter.
- Back up Power Supplies of CPU(VRM etc.)
- Miniature high Power Supply.

### Environmental Correspondence

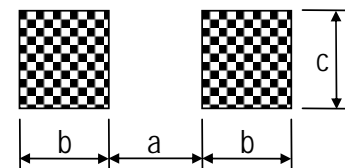
Corresponding to Lead-free, RoHS compliance and Halogen-free.

- The Lead-free of terminal plating.

### Specifications

Items		Characteristic
		UA, UB
Operating temp. range		-55 to +105°C
Rated voltage range		2.0 to 25V-DC
Capacitance range		15 to 220 $\mu$ F
Capacitance tolerance		$\pm 20\%$ (M)
Endurance	Test condition	105°C, rated voltage 1000Hrs.
	Capacitance	Within $\pm 20\%$ of initial value before test
	Leakage current	Not to exceed the initial specified value
	$\tan \delta$	Not to exceed 150% of initial specified value
Damp Heat	Test condition	60°C, 90~95%RH, No Bias, 500Hrs.
	Capacitance	Within +50~-20% of initial value before test
	Leakage current	Not to exceed 300% of initial specified value
	$\tan \delta$	Not to exceed 200% of initial specified value
Failure Rate		0.5% / 1000Hrs. Max (60%CL)

### Recommended land pattern



[Unit: mm]

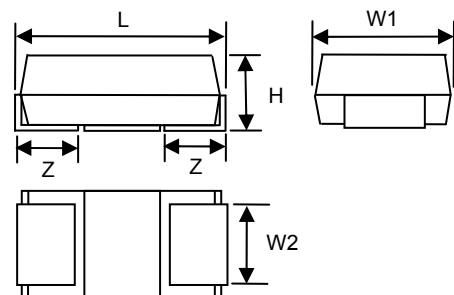
Size Code L × W × H	a	b	c
L 7.3 × 4.3 × 1.9	4.1	2.05	2.9

### Size Code (ESR) List

[Size Code (mΩ)]

R.V. (S.V.) [V]	2.0 (2.3)	4.0 (4.6)	6.3 (7.2)	16 (18.4)	25 (28.7)
Cap. [ $\mu$ F]	UA	UB	UA	UA	UA
15					L (70)
27				L (65)	
100			L (25)		
150			L (18)		
220	L (15)	L (9)			

### Dimensions



[Unit: mm]

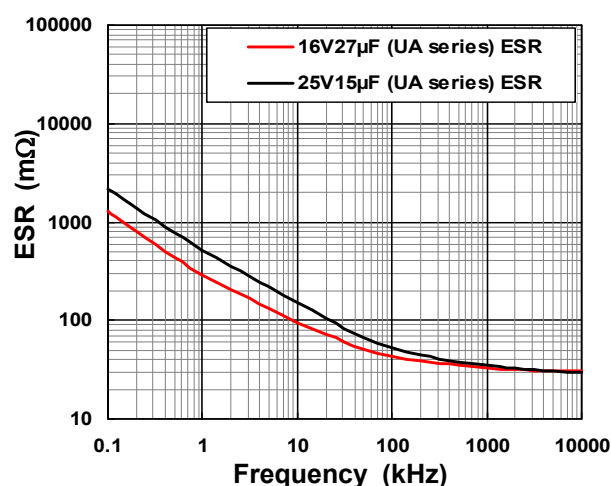
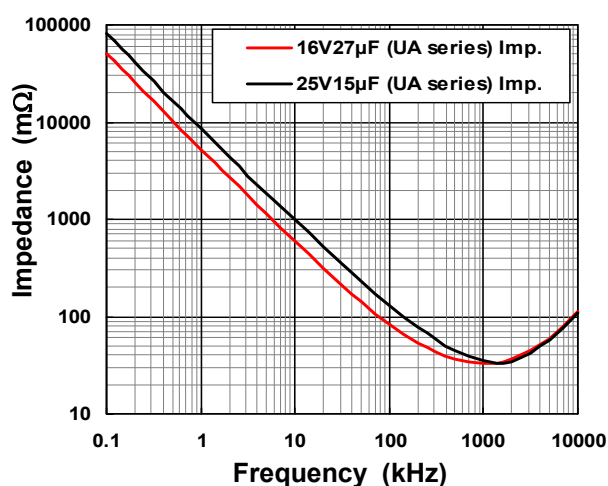
Size Code L × W × H	L $\pm 0.2$	W1 $\pm 0.2$	W2 $\pm 0.1$	H $\pm 0.1$	Z $\pm 0.2$
L 7.3 × 4.3 × 1.9	7.3	4.3	2.4	1.9	1.3

## Part number & Specifications

Rated Voltage (V)	Rated Capacitance ( $\mu$ F, 120Hz)	Part Number		Leakage Current* ( $\mu$ A, 2 min)	$\tan\delta$ (120Hz)	ESR (m $\Omega$ , 100kHz)	Rated Ripple Current (mA, r.m.s.)	Size L×W×H(mm)	MSL (J-STD-020D)
		NICHICON	FPCAP						
2.0	220	RUA0D221MLG	FP-2R0CM221M-UAR	700	0.12	15	2800	7.3 × 4.3 × 1.9	Level 3
	220	RUB0D221MLG	FP-2R0CM221M-UBR	700	0.12	9	3300	7.3 × 4.3 × 1.9	Level 3
4.0	150	RUA0G151MLG	FP-4R0CM151M-UAR	700	0.12	18	2600	7.3 × 4.3 × 1.9	Level 3
6.3	100	RUA0J101MLG	FP-6R3CM101M-UAR	700	0.12	25	2300	7.3 × 4.3 × 1.9	Level 3
16	27	RUA1C270MLG	FP-016CM270M-UAR	216	0.12	65	1100	7.3 × 4.3 × 1.9	Level 3
25	15	RUA1E150MLG	FP-025CM150M-UAR	188	0.12	70	1000	7.3 × 4.3 × 1.9	Level 3

\* In case of some doubt about measured values, measure after applying rated voltage for 120 minutes at 105°C.

## Frequency Characteristics



## Part Number (EX) 25V, 15 $\mu$ F, UA series

Nichicon P/N

<b>R</b>	<b>UA</b>	<b>1E</b>	<b>150</b>	<b>M</b>	<b>L</b>	<b>G</b>	
Type	Series Name	Rated Voltage	Rated Capacitance	Capacitance Tolerance	Size Code (L: 7.3×4.3×1.9)	Taping Code	Control Code

FPCAP P/N

<b>FP</b>	<b>025</b>	<b>CM</b>	<b>150</b>	<b>M</b>	<b>UA</b>	<b>R</b>	
Commodity Mark	Rated Voltage	Classification	Rated Capacitance	Capacitance Tolerance	Series Name	Taping Code	Control Code