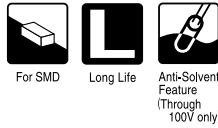


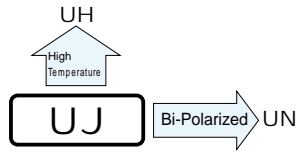
ALUMINUM ELECTROLYTIC CAPACITORS

UJ series

Chip Type, Higher Capacitance Range



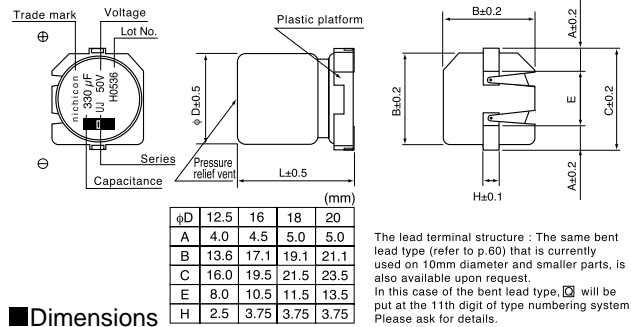
- Chip Type, higher capacitance in larger case sizes ($\phi 12.5$, $\phi 16$, $\phi 18$, $\phi 20$)
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape and tray.
- Adapted to the RoHS directive (2002/95/EC).



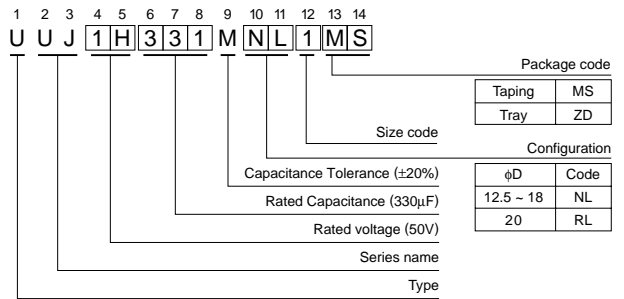
Specifications

Item	Performance Characteristics													
Category Temperature Range	-55 ~ +105°C (6.3 ~ 100V), -40 ~ +105°C (160 ~ 450V)													
Rated Voltage Range	6.3~450V													
Rated Capacitance Range	3.3~6800 μ F													
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C													
Leakage Current	Rated voltage (V)			6.3 ~ 100						160~450				
	—			After 1 minutes' application of rated voltage, leakage current is not more than 0.03CV or 4 (μ A), whichever is greater.						I = 0.04CV+100 (μ A) max.(1 minute's)				
tan δ	Rated voltage (V)			6.3	10	16	25	35	50	63	100	160 ~ 250	400 • 450	120Hz
	tan δ (MAX)			0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	0.15	0.20	20°C
	For capacitance of more than 1000 μ F, add 0.02 for every increase of 1000 μ F.													
Stability at Low Temperature	Rated voltage (V)			6.3	10	16	25	35	50	63	100	160 ~ 250	400 • 450	120Hz
	Impedance ratio	Z-25°C / Z+20°C		5	4	3	2	2	2	2	2	3	6	
	ZT / Z20 (MAX.)	Z-40°C / Z+20°C		10	8	6	4	3	3	3	3	6	10	
Endurance	After 5000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.													
	Capacitance change						Within $\pm 20\%$ of initial value							
	tan δ						200% or less of initial specified value							
Shelf Life	After storing the capacitors under no load at 105°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.													
	Black print on the case top.													
Marking														

Chip Type



Type numbering system (Example : 50V 330 μ F)



Dimensions

V (μ F) Cap.	Code	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
220	221									12.5 × 13.5	280	12.5 × 16	320
330	331							12.5 × 13.5	320	12.5 × 16	360	● 16 × 16.5	440
470	471					12.5 × 13.5	360	12.5 × 16	400	● 16 × 16.5	490	△ 18 × 16.5	550
1000	102	12.5 × 13.5	440	12.5 × 16	500	● 16 × 16.5	630	△ 18 × 16.5	700	△ 18 × 16.5	750	18 × 21.5	820
2200	222	● 16 × 16.5	750	● 16 × 16.5	810	△ 18 × 16.5	930	18 × 21.5	1050	20 × 21.5	1150		
3300	332	△ 18 × 16.5	930	△ 18 × 16.5	1000	18 × 21.5	1150						
4700	472	★ 18 × 21.5	1100	18 × 21.5	1200								
6800	682	20 × 21.5	1350	20 × 21.5	1450								

V (μ F) Cap.	Code	63		100		160		200		250		400		450	
		1J		2A		2C		2D		2E		2G		2W	
3.3	3R3													12.5 × 13.5	50
4.7	4R7									12.5 × 13.5	65	12.5 × 16	50	12.5 × 16	50
10	100							12.5 × 13.5	80	12.5 × 16	105	16 × 16.5	85	16 × 16.5	85
22	220							12.5 × 16	105	● 16 × 16.5	180	18 × 21.5	130	18 × 21.5	130
33	330					12.5 × 13.5	95	● 16 × 16.5	220	△ 18 × 16.5	230	20 × 21.5	160	20 × 21.5	160
47	470			12.5 × 13.5	160	● 16 × 16.5	260	△ 18 × 16.5	270	★ 18 × 21.5	280				
68	680	12.5 × 13.5	175	12.5 × 16	205	△ 18 × 16.5	320	★ 18 × 21.5	330	20 × 21.5	340				
100	101	12.5 × 16	225	● 16 × 16.5	285	★ 16 × 21.5	380	20 × 21.5	410						
220	221	● 16 × 16.5	385	△ 18 × 16.5	440										
330	331	△ 18 × 16.5	490	20 × 21.5	500										
470	471	18 × 21.5	590											Case size $\phi D \times L$ (mm)	Rated Ripple

Size $\phi 12.5 \times 21$ is available for capacitors marked, "●". Size $\phi 16 \times 21.5L$ is available for capacitors marked, "△". Size $\phi 20 \times 16.5L$ is available for capacitors marks, "★".

* In this case, \square will be put at 12th digit of type numbering system.

Rated Ripple (mArms) at 105°C 120Hz

Frequency coefficient of rated ripple current

V	Cap. (μ F)	Frequency					
		50Hz	120Hz	300Hz	1kHz	10kHz~	
6.3 ~ 100	~ 68	0.75	1.00	1.35	1.57	2.00	
	100 ~ 470	0.80	1.00	1.23	1.34	1.50	
	1000 ~ 6800	0.85	1.00	1.10	1.13	1.15	
160 ~ 450	3.3 ~ 100	0.80	1.00	1.25	1.40	1.60	

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please refer to page 3 for the minimum order quantity.