

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon



Chip Type, Higher Capacitance Range



For SMD



Long Life



Anti-Solvent
Feature
(Through
100V only)

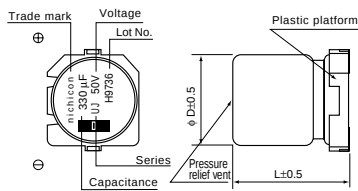
- Chip Type, higher capacitance in larger case sizes (φ12.5, φ16, φ18, φ20)
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape and tray.



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	3.3~6800μF										
Capacitance Tolerance	±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 (μA), whichever is greater.							I = 0.04CV+100 (μA) max. (1 minute's)	
tan δ	Rated voltage (V)		6.3	10	16	25	35	50	63	100	120Hz
	tan δ (MAX)		0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	20°C
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.										
Stability at Low Temperature	Rated voltage (V)		6.3	10	16	25	35	50	63	100	120Hz
	Impedance ratio		Z-25°C / Z+20°C	5	4	3	2	2	2	2	
	ZT / Z20 (MAX.)		Z-40°C / Z+20°C	10	8	6	4	3	3	3	
Endurance	After 5000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.										
	Leakage current										Initial specified value or less
	Capacitance change										Within ±20% of initial value
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.										
	tan δ										200% or less of initial specified value
Marking	Black print on the case top.										

Chip Type

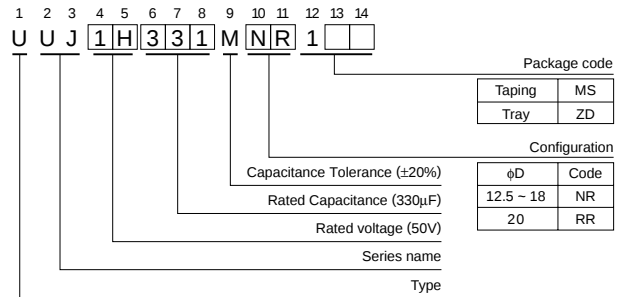


Technical drawing of a mechanical part showing dimensions: B±0.2, A±0.2, E, C±0.2, H±0.1, and A±0.2.

φD	12.5	16	18	20
A	4.0	4.5	5.0	5.0
B	13.6	17.1	19.1	21.1
C	16.0	19.5	21.5	23.5
E	8.0	10.5	11.5	13.5
H	2.5	3.75	3.75	3.75

(mm)

Type numbering system (Example : 50V 330μF)



Dimensions

V		6.3		10		16		25		35		50	
Cap.		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		63		100		160		200		250		400		450	
Cap.		1J		2A		2C		2D		2E		2G		2W	
3.3	3R3													12.5 × 13.5	40
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												

Size φ12.5 × 21 is available for capacitors marked, "▲". Size φ16 × 21.5L is available for capacitors marked, "△". Size φ20 × 16.5L is available for capacitors marked, "★".

※ In this case, [6] will be put at 12th digit of type numbering system.

Rated Ripple (mA rms) at 105°C 120Hz

Frequency coefficient of rated ripple current

V		Cap. (μF)		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 22.

Please refer to page 3 for the minimum order quantity.

CAT.8100S