

ALUMINUM ELECTROLYTIC CAPACITORS

UHW

Miniature Sized, High Ripple Current,
High Reliability



Smaller



Low Impedance

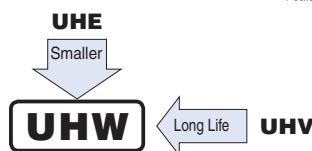


Long Life

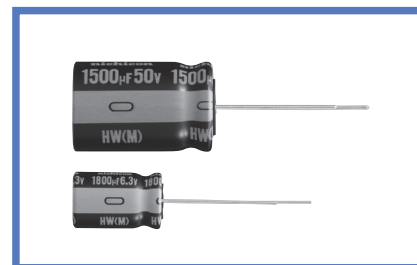


Anti-Solvent
Feature

- Lower impedance at high frequency range.
- Smaller case size and high ripple current.
- Compliant to the RoHS directive (2011/65/EU).



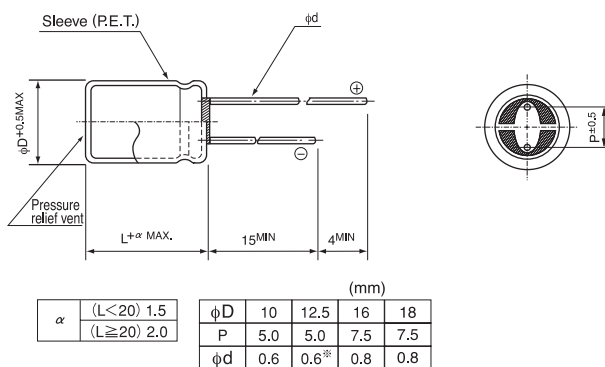
Expanded



Specifications

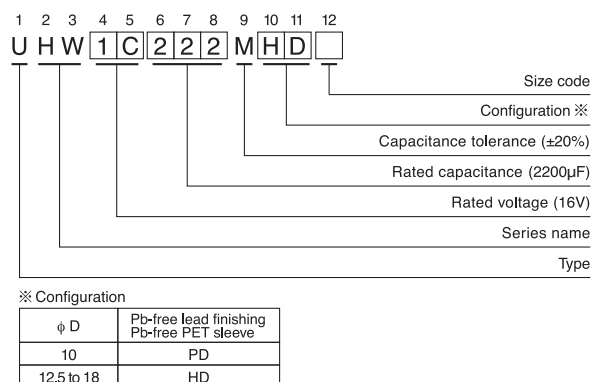
Item	Performance Characteristics											
Category Temperature Range	-40 to +105°C											
Rated Voltage Range	6.3 to 100V											
Rated Capacitance Range	82 to 15000μF											
Capacitance Tolerance	±20% at 120Hz, 20°C											
Leakage Current	After 2 minute's application of rated voltage at 20°C, leakage current is more than 0.01CV(μA)											
Tangent of loss angle (tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	Measurement frequency : 120Hz, Temperature : 20°C	
	tan δ (MAX.)	0.21	0.18	0.15	0.13	0.11	0.10	0.09	0.09	0.08		
	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	80	100	Measurement frequency : 120Hz
	Impedance ratio	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2	2	
	ZT / Z20 (MAX.)	Z-40°C / Z+20°C	3	3	3	3	3	3	3	3	3	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 10000 hours at 105°C, the peak voltage shall not exceed the rated voltage.							Capacitance Change		Within ±25% of the initial capacitance value (6.3V 10V:±30%)		
								tan δ		200% or less than the initial specified value		
								Leakage current		Less than or equal to the initial specified value		
Marking	Printed with white color letter on black sleeve.											

Radial Lead Type



※ In case L > 25 for the φ12.5 dia. unit, lead dia. φ d = 0.8mm.

Type numbering system (Example : 16V 2200µF)



Frequency coefficient of rated ripple current

Cap. (µF)	Frequency	120Hz	1kHz	10kHz	10kHz or more
82 to 180		0.40	0.75	0.90	1.00
220 to 560		0.50	0.85	0.94	1.00
680 to 1800		0.60	0.87	0.95	1.00
2200 to 3900		0.75	0.90	0.95	1.00
4700 to 15000		0.85	0.95	0.98	1.00

● Dimension table in next page.

Design, Specifications are subject to change without notice.

NICHICON CORPORATION

ALUMINUM ELECTROLYTIC CAPACITORS

UHW

■ Dimensions

V (Code) Cap.(μF) Item Code		6.3 (0J)				10 (1A)			
		Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C / 100kHz
			20°C / 100kHz	−10°C / 100kHz			20°C / 100kHz	−10°C / 100kHz	
1200	122					10 × 16	0.030	0.090	2000
1500	152					10 × 16	0.030	0.090	2000
1800	182	10 × 16	0.030	0.090	2000	10 × 20	0.020	0.060	2500
2200	222	10 × 20	0.020	0.060	2500	10 × 25	0.017	0.051	2900
2700	272	10 × 20	0.020	0.060	2500	12.5 × 20	0.017	0.051	2600
3300	332	10 × 25	0.017	0.051	2900	12.5 × 20	0.017	0.051	2600
3900	392	12.5 × 20	0.017	0.051	2600	12.5 × 25	0.015	0.045	3200
4700	472	12.5 × 25	0.015	0.045	3200	12.5 × 31.5	0.012	0.036	3795
		▲ 16 × 20					0.015	0.045	3575
5600	562	12.5 × 31.5	0.012	0.036	3795	12.5 × 35.5	0.011	0.033	4120
		▲ 12.5 × 25	0.015	0.045	3200	▲ 16 × 25	0.013	0.039	3810
6800	682	12.5 × 31.5	0.011	0.033	3795				
		▲ 16 × 20	0.015	0.045	3575	16 × 25	0.013	0.039	3810
8200	822	16 × 25	0.013	0.039	3810	16 × 31.5	0.011	0.033	4000
10000	103	16 × 25	0.013	0.039	3810	16 × 31.5	0.011	0.033	4000
12000	123	16 × 31.5	0.011	0.033	4000	16 × 35.5	0.010	0.030	4200
15000	153	16 × 35.5	0.010	0.030	4200				

V (Code) Cap.(μF) Item Code		16 (1C)				25 (1E)			
		Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C / 100kHz
			20°C / 100kHz	−10°C / 100kHz			20°C / 100kHz	−10°C / 100kHz	
680	681					10 × 16	0.030	0.090	2000
820	821	10 × 16	0.030	0.090	2000	10 × 20	0.020	0.060	2500
		▲ 10 × 16					0.030	0.090	2000
1000	102	10 × 16	0.030	0.090	2000	10 × 20	0.020	0.060	2500
1200	122	10 × 20	0.020	0.060	2500				
		▲ 10 × 16	0.030	0.090	2000	10 × 25	0.017	0.051	2900
1500	152	10 × 20	0.020	0.060	2500	12.5 × 20	0.017	0.051	2600
1800	182	10 × 25	0.017	0.051	2900	12.5 × 25	0.015	0.045	3200
2200	222	12.5 × 20	0.017	0.051	2600	12.5 × 25	0.015	0.045	3200
		▲ 16 × 20					0.015	0.045	3575
2700	272	12.5 × 25	0.015	0.045	3200	12.5 × 31.5	0.012	0.036	3795
		▲ 16 × 20					0.015	0.045	3576
3300	332	12.5 × 25	0.015	0.045	3200	12.5 × 35.5	0.011	0.033	4120
		▲ 16 × 20	0.015	0.045	3575	▲ 16 × 25	0.013	0.039	3810
3900	392	12.5 × 31.5	0.012	0.036	3795				
		▲ 16 × 20	0.015	0.045	3575	16 × 25	0.013	0.039	3810
4700	472	12.5 × 35.5	0.011	0.033	4120				
		▲ 16 × 25	0.013	0.039	3810	16 × 31.5	0.011	0.033	4000
5600	562	16 × 25	0.013	0.039	3810	16 × 35.5	0.010	0.030	4200
6800	682	16 × 31.5	0.011	0.033	4000				
8200	822	16 × 35.5	0.010	0.030	4200				

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

ALUMINUM ELECTROLYTIC CAPACITORS

UHW

■Dimensions

V (Code) Cap.(μF) Item Code		35 (1V)				50 (1H)			
		Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C /100kHz	Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C /100kHz
			20°C /100kHz	-10°C /100kHz			20°C /100kHz	-10°C /100kHz	
220	221					10 × 16	0.042	0.126	1650
270	271					10 × 20	0.030	0.090	2060
330	331					10 × 20	0.030	0.090	2060
390	391	10 × 16	0.030	0.090	2000	10 × 25 ▲10 × 20	0.028 0.030	0.084 0.090	2420 2060
470	471	10 × 16	0.030	0.090	2000	10 × 25 ▲12.5 × 20	0.028 0.027	0.084 0.081	2420 2300
560	561	10 × 20	0.020	0.060	2500	12.5 × 20	0.027	0.081	2300
680	681	10 × 25 ▲10 × 20	0.017 0.020	0.051 0.060	2900 2500	12.5 × 25	0.023	0.069	2800
820	821	10 × 25 ▲12.5 × 20	0.017 0.017	0.051 0.051	2900 2600	12.5 × 25 ▲16 × 20	0.023 0.023	0.069 0.069	2800 3070
1000	102	12.5 × 20	0.017	0.051	2600	12.5 × 31.5 ▲16 × 25	0.020 0.021	0.060 0.063	3500 3270
1200	122	12.5 × 25	0.015	0.045	3200	16 × 25	0.021	0.063	3270
1500	152	16 × 20	0.015	0.045	3575	12.5 × 35.5 ▲16 × 25	0.019 0.021	0.057 0.063	3810 3270
1800	182	12.5 × 31.5 ▲16 × 25	0.012 0.013	0.036 0.039	3795 3810	16 × 31.5	0.019	0.057	3430
2200	222	12.5 × 35.5 ▲16 × 25	0.011 0.013	0.033 0.039	4120 3810	16 × 31.5	0.019	0.057	3430
2700	272					16 × 35.5	0.018	0.054	3600
3300	332	16 × 31.5	0.011	0.033	4000				
3900	392	16 × 35.5	0.010	0.030	4200				

V (Code) Cap.(μF) Item Code		63 (1J)				80 (1K)			
		Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C /100kHz	Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mArms) 105°C /100kHz
			20°C /100kHz	-10°C /100kHz			20°C /100kHz	-10°C /100kHz	
120	121					10 × 16	0.115	0.47	1040
180	181	10 × 16	0.115	0.47	1200	10 × 20 ▲12.5 × 15	0.088 0.115	0.34 0.47	1430 1430
220	221					10 × 25	0.072	0.28	1620
270	271	10 × 20	0.088	0.34	1570	10 × 31.5 ▲12.5 × 20	0.063 0.065	0.18 0.18	1750 1750
330	331	10 × 25	0.072	0.28	1990				
390	391	10 × 31.5 ▲12.5 × 20	0.063 0.065	0.18 0.18	2050 1990	12.5 × 25	0.049	0.14	2210
470	471					12.5 × 31.5 ▲16 × 20	0.044 0.050	0.13 0.15	2400 1950
560	561	12.5 × 25	0.049	0.14	2460	12.5 × 35.5 ▲18 × 20	0.038 0.047	0.11 0.14	2600 2270
680	681	12.5 × 31.5 ▲16 × 20	0.044 0.050	0.13 0.15	2760 2380	12.5 × 40 ▲16 × 25	0.033 0.040	0.095 0.12	2860 2430
820	821	12.5 × 35.5 ▲18 × 20	0.038 0.047	0.11 0.14	3040 2460	16 × 31.5 ▲18 × 25	0.033 0.038	0.095 0.11	2640 2500
1000	102	12.5 × 40 ▲16 × 25	0.033 0.040	0.095 0.12	3100 2890	16 × 35.5	0.030	0.086	2860
1200	122	16 × 31.5 ▲18 × 25	0.025 0.038	0.072 0.11	2930 2930	16 × 40 ▲18 × 31.5	0.028 0.031	0.081 0.090	3510 2860
1500	152	16 × 35.5 ▲18 × 31.5	0.023 0.024	0.066 0.069	3100 3100	18 × 35.5	0.028	0.081	3510
1800	182	16 × 40 ▲18 × 35.5	0.021 0.022	0.060 0.063	3510 3510	18 × 40	0.027	0.076	3860
2200	222	18 × 40	0.020	0.057	3860				

▲ : In this case, 6 will be put at 12th digit of type numbering system.

Design, Specifications are subject to change without notice.

NICHICON CORPORATION

ALUMINUM ELECTROLYTIC CAPACITORS

UHW

■ Dimensions

Cap.(μF)	V (Code)	Item	100 (2A)			
			Case size φD × L (mm)	Impedance (Ω) MAX.		Rated ripple (mA _{rms}) 105°C /100kHz
				20°C /100kHz	-10°C /100kHz	
82	82		10 × 16	0.115	0.47	1040
100	101		10 × 20	0.088	0.34	1430
		▲	12.5 × 15	0.115	0.47	1430
120	121		10 × 25	0.072	0.28	1620
180	181		12.5 × 20	0.065	0.18	1750
220	221		12.5 × 25	0.049	0.14	2210
270	271		12.5 × 31.5	0.044	0.13	2400
		▲	16 × 20	0.050	0.15	1950
390	391		12.5 × 35.5	0.038	0.11	2600
		▲	16 × 25	0.040	0.12	2430
		※	18 × 20	0.047	0.14	2270
470	471		12.5 × 40	0.033	0.095	2860
		▲	18 × 25	0.038	0.11	2500
560	561		16 × 31.5	0.033	0.095	2640
680	681		16 × 35.5	0.030	0.086	2860
		▲	18 × 31.5	0.031	0.090	2860
820	821		16 × 40	0.028	0.081	3510
		▲	18 × 35.5	0.028	0.081	3510
1000	102		18 × 40	0.027	0.076	3860

▲: In this case, 6 will be put at 12th digit of type numbering system.

※: In this case, 3 will be put at 12th digit of type numbering system.

Design, Specifications are subject to change without notice.

NICHICON CORPORATION