

ALUMINUM ELECTROLYTIC CAPACITORS

UBY

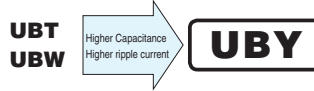
High Temperature Range,
For +125°C or 135°C Use
(125°C / 135°C 3000hour)



NEW



- Higher capacitance and higher ripple current than UBT and UBW.
- Application suggestion high temperature, electric power steering.
- Compliant to the RoHS directive (2011/65/EU).

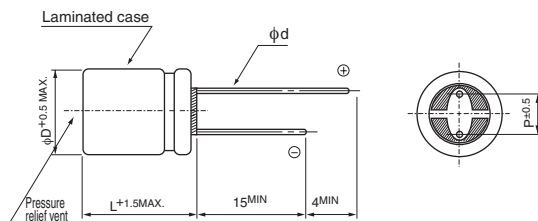
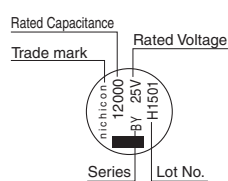


Specifications

Item	Performance Characteristics																		
Category Temperature Range	-40 to +135°C																		
Rated Voltage Range	25 to 50V																		
Rated Capacitance Range	620 to 12000μF																		
Capacitance Tolerance	±20% at 120Hz, 20°C																		
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV (μA)																		
Tangent of loss angle (tan δ)	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>25</td> <td>35</td> <td>50</td> <td>120Hz, 20°C</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td></td> </tr> </table>	Rated voltage (V)	25	35	50	120Hz, 20°C	tan δ (MAX.)	0.14	0.12	0.10									
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For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.																			
Stability at Low Temperature	<table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>25</td> <td>35</td> <td>50</td> <td>120Hz</td> </tr> <tr> <td>Impedance ratio</td> <td>Z-25°C / Z+20°C</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>ZT / Z20 (MAX.)</td> <td>Z-40°C / Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td></td> </tr> </table>	Rated voltage (V)		25	35	50	120Hz	Impedance ratio	Z-25°C / Z+20°C	2	2	2		ZT / Z20 (MAX.)	Z-40°C / Z+20°C	4	4	4	
	Rated voltage (V)		25	35	50	120Hz													
Impedance ratio	Z-25°C / Z+20°C	2	2	2															
ZT / Z20 (MAX.)	Z-40°C / Z+20°C	4	4	4															
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 3000 hours at 125°C or 135°C, the peak voltage shall not exceed the rated voltage.																		
	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>300% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table>	Capacitance change	Within ±30% of the initial capacitance value	tan δ	300% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value												
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Shelf Life	After storing the capacitors under no load at 125°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	Black print on the case top.																		

Radial Lead Type

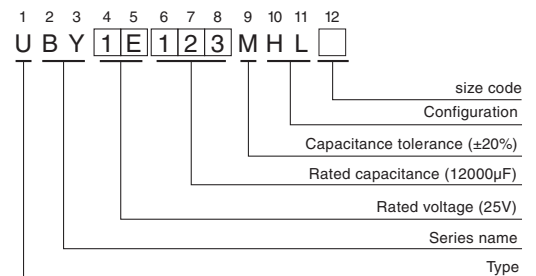
Type numbering system (Example : 25V 12000μF)



(mm)

φD	12.5	16	18
P	5.0	7.5	7.5
φd	0.6※	0.8	0.8

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



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■ Dimensions

V (Code) Item Cap. (μF) Code		25(1E)					35(1V)				
		Case size φD × L (mm)	ESR (Ω) MAX.		Rated ripple (mAmps)		Case size φD × L (mm)	ESR (Ω) MAX.		Rated ripple (mAmps)	
			20°C /100kHz	-40°C /100kHz	125°C /100kHz	135°C /100kHz		20°C /100kHz	-40°C /100kHz	125°C /100kHz	135°C /100kHz
1300	132						12.5 × 20	0.042	0.48	2760	1690
1800	182						12.5 × 25	0.033	0.30	3480	2010
2000	202	12.5 × 20	0.042	0.48	2760	1690					
2200	222						12.5 × 31.5	0.028	0.24	4490	2900
							▲16 × 20	0.031	0.27	3040	1860
2700	272						12.5 × 35.5	0.025	0.21	5140	3190
							▲18 × 20	0.030	0.22	3250	1870
3000	302	12.5 × 25	0.033	0.30	3480	2010	16 × 25	0.026	0.22	4260	2870
3300	332	16 × 20	0.031	0.27	3040	1860	12.5 × 40	0.024	0.19	5810	3470
3600	362	12.5 × 31.5	0.028	0.24	4490	2900					
3900	392						16 × 31.5	0.023	0.18	5480	3400
							▲18 × 25	0.025	0.19	4500	2900
4300	432	18 × 20	0.030	0.22	3250	1870					
4700	472	16 × 25	0.026	0.22	4260	2870	16 × 35.5	0.020	0.14	6070	3630
5100	512	12.5 × 40	0.024	0.19	5810	3470	18 × 31.5	0.022	0.16	5600	3470
5600	562						16 × 40	0.019	0.12	6810	3930
6200	622	16 × 31.5	0.023	0.18	5480	3400	18 × 35.5	0.019	0.12	6280	3750
		▲18 × 25	0.025	0.19	4500	2900					
7500	752	16 × 35.5	0.020	0.14	6070	3630	18 × 40	0.018	0.10	7070	4080
8200	822	18 × 31.5	0.022	0.16	5600	3470					
9100	912	16 × 40	0.019	0.12	6810	3930					
10000	103	18 × 35.5	0.019	0.12	6280	3750					
12000	123	18 × 40	0.018	0.10	7070	4080					

V (Code) Item Cap. (μF) Code		50(1H)				
		Case size φD × L (mm)	ESR (Ω) MAX.		Rated ripple (mAmps)	
			20°C /100kHz	-40°C /100kHz	125°C /100kHz	135°C /100kHz
620	621	12.5 × 20	0.056	0.88	2400	1470
820	821	12.5 × 25	0.044	0.67	3350	2260
1000	102	16 × 20	0.039	0.55	2960	1870
1100	112	12.5 × 31.5	0.037	0.52	4220	2520
1300	132	12.5 × 35.5	0.033	0.44	4810	2780
		▲16 × 25	0.033	0.44	4040	2500
		※18 × 20	0.038	0.44	3130	2110
1600	162	12.5 × 40	0.032	0.36	5240	3020
1800	182	16 × 31.5	0.029	0.36	5130	2960
		▲18 × 25	0.032	0.32	4230	2530
2200	222	16 × 35.5	0.025	0.27	5480	3160
2400	242	18 × 31.5	0.028	0.25	5240	3020
2700	272	16 × 40	0.024	0.22	5930	3420
3000	302	18 × 35.5	0.024	0.20	5870	3390
3600	362	18 × 40	0.023	0.16	6420	3700

▲: 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.

● Frequency coefficient of rated ripple current

Cap. (μF)	Frequency	120Hz	1kHz	10kHz	100kHz or more
620 ~ 2000		0.60	0.87	0.95	1.00
2200 ~ 4300		0.75	0.90	0.95	1.00
4700 ~ 12000		0.85	0.95	0.98	1.00

The UBY series places emphasis on high ripple current, as a result the lifetime calculation is different than other series. Please contact Nichicon for details.

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