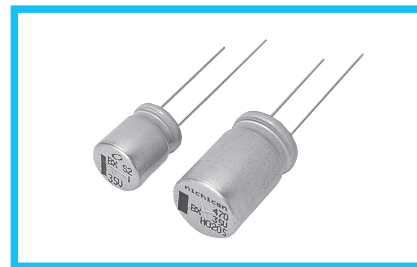
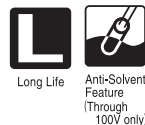


ALUMINUM ELECTROLYTIC CAPACITORS

UBX High Temperature Range, For +150°C Use



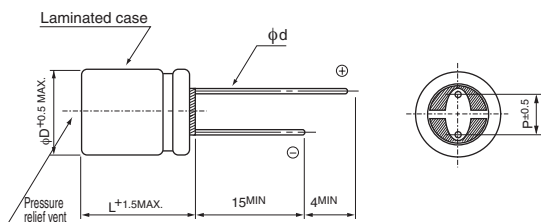
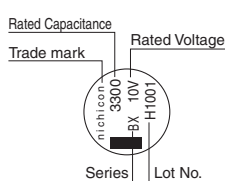
- Laminated case series.
- Suited for automobile electronics where heavy duty services are indispensable.
- Compliant to the RoHS directive (2011/65/EU).

UBX



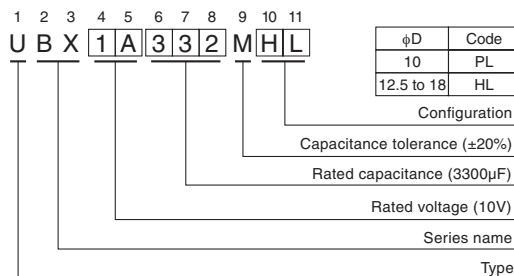
Item	Performance Characteristics	
Category Temperature Range	-55 to +150°C (10 to 100V), -40 to +150°C (160 · 200V), -25 to +150°C (350 · 400V)	
Rated Voltage Range	10 to 400V	
Rated Capacitance Range	1 to 4700μF	
Capacitance Tolerance	± 20% at 120Hz, 20°C	
Leakage Current	Rated Voltage (V)	10 to 100 160 to 400
	Leakage current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater. CV ≤ 1000 : I = 0.1CV+40 (μA) max. CV > 1000 : I = 0.04CV+100 (μA) max.
Tangent of loss angle (tan δ)	Rated voltage (V)	10 16 25 35 50 63 80 100 160·200 350·400
	tan δ (MAX.)	0.20 0.16 0.14 0.12 0.10 0.10 0.08 0.08 0.20 0.24
	120Hz 20°C For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.	
Stability at Low Temperature	Rated voltage (V)	10 16 25 35 50 63 80 100 160·200 350·400
	Impedance ratio	Z-25°C / Z+20°C 3 2 2 2 2 2 2 2 2 3 6
	ZT / Z20 (MAX.)	Z-40°C / Z+20°C 4 4 4 4 4 4 4 4 4 6 -
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 2000 hours (1000 hours for φD=10 and 12.5) at 150°C, the peak voltage shall not exceed the rated voltage.	
	Capacitance change	tan δ
Marking	Black print on the case top.	

Radial Lead Type



(mm)	10	12.5	16	18
φD	5.0	5.0	7.5	7.5
P	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8

Type numbering system (Example : 10V 3300μF)



- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

Dimension table in next page.



■ Dimensions

Cap. (μ F)	V (Code) Code	10		16		25		35	
		1A		1C		1E		1V	
1	010							10 × 12.5	35
2.2	2R2							10 × 12.5	50
3.3	3R3							10 × 12.5	60
4.7	4R7							10 × 12.5	85
10	100							10 × 12.5	175
22	220							10 × 12.5	200
33	330							10 × 12.5	225
47	470							10 × 12.5	250
100	101					10 × 12.5	250	10 × 20	400
220	221			10 × 16	300	12.5 × 20	500	12.5 × 25	600
330	331	10 × 16	300	10 × 20	400	12.5 × 25	600	16 × 25	800
470	471	10 × 20	400	12.5 × 20	600	16 × 25	800	16 × 31.5	1000
1000	102	12.5 × 25	600	16 × 25	800	16 × 31.5	1000	18 × 40	1300
2200	222	16 × 31.5	1000	18 × 35.5	1200				
3300	332	18 × 35.5	1200	18 × 40	1300			Case size ϕ D × L (mm)	Rated ripple
4700	472	18 × 40	1300						

Cap. (μ F)	V (Code) Code	50		63		80		100	
		1H		1J		1K		2A	
22	220							10 × 12.5	390
33	330					10 × 12.5	420	10 × 16	510
47	470					10 × 16	550	10 × 20	640
56	560			10 × 12.5	430	10 × 20	690	10 × 20	640
68	680			10 × 16	560	10 × 20	690	12.5 × 20	760
100	101	10 × 12.5	380	10 × 20	710	12.5 × 20	820	12.5 × 25	950
220	221	10 × 20	640	12.5 × 25	1040	16 × 25	1250	16 × 31.5	1380
330	331	12.5 × 20	770	12.5 × 31.5	1170	16 × 31.5	1480	18 × 31.5	1430
470	471	12.5 × 25	960	16 × 25	1280	18 × 31.5	1530		
560	561	12.5 × 31.5	1080	16 × 31.5	1520				
680	681	16 × 25	1190	16 × 35.5	1520			Case size ϕ D × L (mm)	Rated ripple
1000	102	16 × 31.5	1420						

● Frequency coefficient of rated ripple current

V	CV	Frequency			
		120Hz	300Hz	1kHz	10kHz or more
10 to 100	1000 > CV	0.50	0.64	0.83	1.00
	1000 ≤ CV	0.67	0.79	0.91	1.00

Rated ripple current (mArms) at 150°C 100kHz

Cap. (μ F)	V (Code) Code	160		200		350		400	
		2C		2D		2V		2G	
4.7	4R7					10 × 16	77	10 × 20	83
6.8	6R8			10 × 12.5	83	10 × 20	110	12.5 × 20	88
10	100	10 × 12.5	110	10 × 12.5	83	12.5 × 20	120	12.5 × 25	105
15	150	10 × 12.5	110	10 × 16	130	12.5 × 25	130	12.5 × 25	105
22	220	10 × 16	160	10 × 20	170				
33	330	12.5 × 20	230	12.5 × 20	210				
47	470	12.5 × 20	250	12.5 × 25	250				
56	560	12.5 × 25	270	16 × 20	270				
68	680	16 × 20	290	16 × 25	290			Case size ϕ D × L (mm)	Rated ripple
100	101	16 × 25	300						

Rated ripple current (mArms) at 150°C 120Hz

● Frequency coefficient of rated ripple current

V	Cap. (μ F)	Frequency					
		50Hz	120Hz	300Hz	1kHz	10kHz	100kHz or more
160 to 400	4.7 to 33	0.75	1.00	1.25	1.50	1.75	1.80
	47 to 100	0.80	1.00	1.15	1.30	1.40	1.50