

## UB Series 85°C

### Features

#### Standard capacitors

#### Applications

- ◆ Professional power supplies
- ◆ Frequency converters
- ◆ Uninterruptible power supplies
- ◆ Used for air conditioner, general-purpose inverter

#### Features

- ◆ High reliability
- ◆ Long useful life
- ◆ High ripple current capability
- ◆ Aluminum case designed explosion-proof vent
- ◆ RoHS-compatible

#### Construction

- ◆ Charge-discharge proof, polar
- ◆ Aluminum case with insulating sleeve
- ◆ Aluminum case designed explosion-proof vent
- ◆ Snap-in solder pins to hold component in place on PC-board



### Specifications

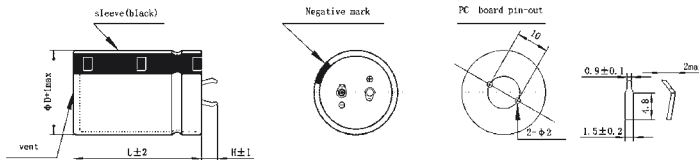
Item	Performance Characteristics		
Operating Temperature Range	-25 to +85°C		
Rated voltage $V_R$	400, 450 V DC		
Surge voltage $V_S$	1.10 $V_R$		
Rated capacitance $C_R$	330 ~ 1200 $\mu$ F		
Capacitance tolerance	$\pm 20\%$ (120Hz, +20°C)		
Dissipation Factor $\tan \delta$ (at 20°C · 120Hz)	Less than the value under table(%)		
	W.V.(V)	400	450
	D.F.(%) max	15	20
Leakage Current $I_{leak}$ (+20°C .max)	$\leq 3 \sqrt{CV}$ ( $\mu$ A) After 5 minutes with rated working voltage applied		
Self-inductance ESL	approx. 20 nH		
Useful life 85 °C; $V_R, I_{AC}^2 R$	> 4000 h	Requirements: $\Delta C/C \leq \pm 40\%$ of initial value ESR $\leq 4$ times initial specified limit Ileak $\leq$ initial specified limit Outlier Percentage: 0 %	
Voltage Endurance test 85 °C; $V_R$	2000 h	Post test requirements: $\Delta C/C \leq \pm 20\%$ of initial value ESR $\leq 2$ times initial specified limit Ileak $\leq$ initial specified limit Outlier Percentage: 0 %	
Shelf Life 85 °C	1000 h	Post test requirements: $\Delta C/C \leq \pm 20\%$ of initial value ESR $\leq 2$ times initial specified limit Ileak $\leq$ initial specified limit Outlier Percentage: 0 %	
Vibration Resistance test	To IEC 60068-2-6, test Fc:		
	Displacement amplitude 0.75 mm, frequency range 10 ... 55 Hz, acceleration max. 10 g, duration 3x2 h. Capacitor mounted by its body which is rigidly clamped to the work surface.		
Characteristics at low temperature	Max. impedance ratio at 120 Hz		
	$V_R$	$\leq 400$ V	$\geq 450$ V
	$Z_{-25^\circ C} / Z_{20^\circ C}$	8	8
Sectional specification	IEC 60384-4 and JIS-C-5101		

## Multiplier for Ripple Current vs. Frequency

CAP(μF)/Frequency(Hz)	50(60)	120	400	1K	10K	50K-100K
100≤CAP≤1000	0.8	1	1.16	1.25	1.35	1.38
1000<CAP	0.8	1	1.11	1.17	1.25	1.28

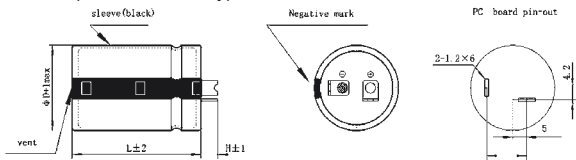
## Dimensional drawings

Standard 2 terminals



Standard snap-in terminals: length(6.0±1)mm · Also available with length of (4.0±1)mm

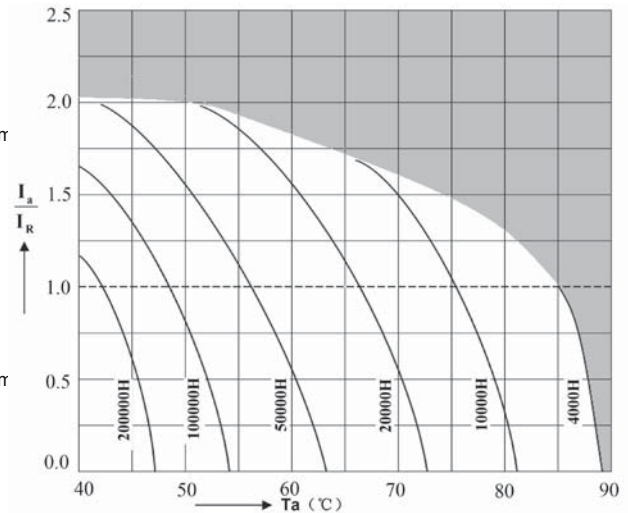
Vibration proof terminal T type



Standard snap-in terminals: length(4.5±1)mm · Also available with length of (5.5±1)mm

## Useful life

depending on ambient temperature  $T_a$  versus under ripple current operating conditions



## Case Size

WV	400V					450V				
	Size	Ripple	Typ. ESR 20°C 120Hz	MAX ESR 20°C 120Hz	Zmax (mΩ/20°C 10KHz)	Size	Ripple	Typ. ESR 20°C 120Hz	MAX ESR 20°C 120Hz	Zmax (mΩ/20°C 10KHz)
330	30x41	1900	460	640	320	30x46	1650	480	660	340
330	35x37	2000	460	640	320	35x42	1750	480	660	340
390	30x41	2050	390	540	270	35x42	1880	410	560	290
390	30x46	2170	390	540	270	35x47	1970	410	560	290
390	35x37	2170	390	540	270					
470	30x51	2400	320	450	220	35x47	2170	340	470	240
470	35x42	2400	320	450	220	35x52	2250	340	470	240
470	35x47	2500	320	450	220					
560	30x56	2750	270	380	190	35x57	2600	290	400	210
560	35x47	2750	270	380	190	35x62	2680	290	400	210
560	35x52	2900	270	380	190					
680	30X61	3150	220	310	150	35x62	2950	240	330	170
680	35x52	3200	220	310	150	40x62	3170	240	330	170
680	35x57	3300	220	310	150					
820	35x57	3530	190	260	130	40x62	3520	210	280	150
820	35x62	3660	190	260	130					
1000	35x70	3800	150	210	110	40x70	3700	170	230	130
1000	40x62	3820	150	210	110					
1200	40x70	3900	130	180	90					

Ripple Current (m A, rms ) at 85°C 120Hz