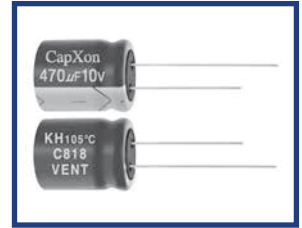


## KH Series Long Life 5,000~10,000 hrs

### Features

- ◆ Used in electronic ballast, switching power supply, industrial measuring instruments.
- ◆ higher ripple current
- ◆ Endurance 5000~10000 Hrs at 105°C
- ◆ Safety vent construction design.
- ◆ RoHS Compliant



### Specifications

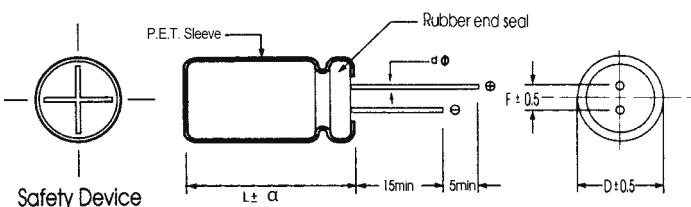
Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C	-25 to +105°C							
Rated Voltage Range	10 to 50 VDC	160 to 450 VDC							
Capacitance Range	6.8 to 3300 µF	6.8 to 220 µF							
Capacitance Tolerance	±20%(120Hz,+20°C)								
Leakage Current (+20°C,max.)	$I \leq 0.01 CV$ or 3 (µA)	$I \leq 0.04 CV+100$ (µA)							
	After 1 minute with rated working voltage applied. I=Leakage Current(µA) C=Rated capacitance(µF) V=Rated Voltage(V)								
Dissipation Factor (tan δ , at 20°C , 120Hz)	Working oltage(VDC)	10 16 25 35 50 160 200 250 350 400 450							
	D.F.(%)max.	19 16 14 12 10 15 15 15 20 20 20							
Low Temperature Characteristics (at 120Hz)	Impedance ratio max								
	Working oltage(VDC)	10 16 25 35 50 160 200 250 350 400 450							
Z-25°C / Z+20°C	4 3 2 2 2 3 3 3 6 6 6								
Endurance	Test conditions								
	Duration time : as right Ambient temperature : +105°C Applied voltage : Rated DC working voltage	<table border="1"> <thead> <tr> <th>D φ</th> <th>Life hours</th> </tr> </thead> <tbody> <tr> <td>&lt; 8 φ</td> <td>5,000</td> </tr> <tr> <td>8 φ</td> <td>8,000</td> </tr> <tr> <td>≥ 10 φ</td> <td>10,000</td> </tr> </tbody> </table>	D φ	Life hours	< 8 φ	5,000	8 φ	8,000	≥ 10 φ
D φ	Life hours								
< 8 φ	5,000								
8 φ	8,000								
≥ 10 φ	10,000								
Shelf Life	After test requirement at +20°C Capacitance change : ≤ ±20% of the initial measured value Dissipation factor : ≤ 200% of the initial specified value Leakage current : ≤ The initial specified value								
	Test conditions Duration time : 1000Hrs Ambient temperature : +105°C Applied voltage : None								
After test requirement at +20°C: Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.									

Radial

### Multiplier for Ripple Current vs. Frequency

Frequency(Hz)	120	1K	10K	≥100K
Multiplier	0.50	0.80	0.85	1.0

### Diagram of Dimensions:(unit:mm)



D φ	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d φ	0.5		0.6		0.8		

α	D < 18	D = 18		D > 18
		L < 35.5	L ≥ 35.5	
	1.5	1.5	2.0	2.0

## Case Size

φ DxL(mm)

WV Cap(μF)	10		16		25		35		50	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
6.8									5x11	75
10							5x11	65	5x11	97
22					5x11	100	5x11	125	6.3x11	130
33			5x11	115	5x11	130	6.3x11	178	8x11.5	241
47	5x11	100	5x11	145	6.3x11	160	8x11.5	240	8x11.5	287
									10x12.5	300
68	5x11	130	6.3x11	200	8x11.5	230	8x11.5	270	10x12.5	356
100	6.3x11	190	8x11.5	245	8x11.5	327	10x12.5	390	10x16	500
150	6.3x11	220	8x11.5	300	10x12.5	460	10x16	632	10x20	747
220	6.3x11	270	8x11.5	420	10x16	580	10x20	760	13x20	977
			10x12.5	495						
330	8x11.5	390	8x16	500	10x20	805	13x20	1035	13x25	1150
470	10x12.5	540	10x16	730	10x20	950	13x25	1100	16x25	1552
1000	10x16	900	13x20	1173	13x25	1552	16x31.5	1932	18x31.5	2093
2200	13x20	1540	16x25	2093	16x31.5	2400				
3300	16x25	1900								

WV Cap(μF)	160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
6.8							10x20	270	10x12.5	220	13x20	240
									10x16	245		
									10x20	270		
10	10x16	280	10x20	310	10x20	320	13x20	350	10x16	274	13x20	390
									10x20	300	13x25	430
									13x20	350		
22	10x20	450	10x20	470	13x20	490	13x25	600	13x20	557	13x25	632
									16x21	640	16x21	659
									16x25	690	16x25	710
33	13x20	610	13x20	620	13x25	750	16x21	820	18x21	870	18x21	883
											18x25	950
47	13x20	680	13x20	910	16x21	930	18x21	1020	18x21	1050	18x31.5	1120
									18x25	1130		
68	13x25	1100	16x25	1190	18x21	1300	18x25	1400	18x31.5	1460		
100	18x21	1310	18x21	1380	18x25	1500						
150	18x25	1780	18x25	1800	18x31.5	1870						
220	18x25	2290	18x31.5	2350								

Ripple Current ( mA, rms ) at 105°C 100KHz