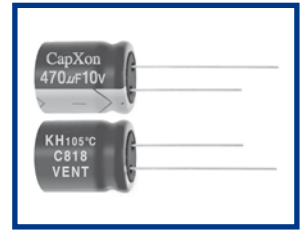


KH Series Long Life 5,000~10,000 hrs

Features

- ◆ Used in electronic ballast, switching power supply, industrial measuring instruments.
- ◆ higher ripple current
- ◆ Load life 5000~10000 Hrs at 105°C
- ◆ Safety vent construction design.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E142
- ◆ RoHS Compliant



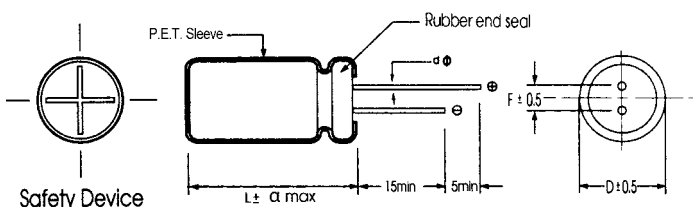
Specifications

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 $3 (\mu A)$	$I \leq 0.04 CV+100 (\mu A)$								
	After 1 minute with rated working voltage applied. I =Leakage Current(μA) C =Rated capacitance(μF) V =Rated Voltage(V)									
Dissipation Factor ($\tan \delta$, 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									
	Test conditions									
Load Life	Duration time : as right	<table border="1"> <thead> <tr> <th>D φ</th> <th>Life hours</th> </tr> </thead> <tbody> <tr> <td>< 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	10,000
	D φ		Life hours							
< 8 φ	5,000									
8 φ	8,000									
≥ 10 φ	10,000									
Ambient temperature : +105°C	Applied voltage : Rated DC working voltage									
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									
Shelf Life	Test conditions									
	Duration time : 1000Hrs	Ambient temperature : +105°C								
Applied voltage : None										
After test requirement at +20°C: Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.										

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	10x20	270	13x20	240
10	10x16	280	10x20	310	10x20	320	13x20	350	13x20	350	13x25	430
22	10x20	450	10x20	470	13x20	490	13x25	600	16x25	690	16x25	710
33	13x20	610	13x20	620	13x25	750	16x21	820	18x21	870	18x25	950
47	13x20	680	13x20	910	16x21	930	18x21	1020	18x25	1130	18x31.5	1120
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