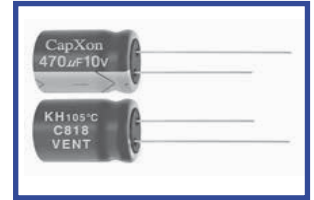


KH series long life 5000~10000hrs

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



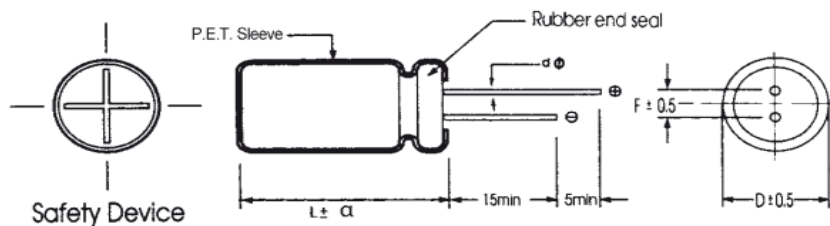
Specifications

Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C	-25 to +105°C							
Rated Voltage Range	10 to 400 VDC	450 VDC							
Capacitance Range	6.8 to 3300 µF	6.8 to 100 µF							
Capacitance Tolerance	±20% (120Hz, +20°C)								
Leakage Current (+20°C, max.)	10~100V: $I \leq 0.01CV$ or 3µA	160~450V: $I \leq 0.04CV + 100(\mu A)$							
	After 1 minute whichever is greater measured with rated working voltage applied $I = \text{Leakage Current}(\mu A)$ $C = \text{Rated capacitance}(\mu F)$ $V = \text{Rated Voltage}(V)$								
Dissipation Factor (tanδ, at 20°C, 120Hz)	Working Voltage(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 Voltage(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							
	Z-40°C / Z+20°C	6 4 3 3 3 6 6 6 6 6 -							
Endurance	Test conditions								
	Duration time : As right Ambient temperature : +105°C Applied voltage : Rated DC working voltage After test requirement at +20°C Capacitance change : with ±20% of the initial measured value Dissipation factor : ≤ 200% of the initial specified value Leakage current : ≤ The initial specified value	<table border="1"> <thead> <tr> <th>Dφ</th> <th>Life (hours)</th> </tr> </thead> <tbody> <tr> <td>< 8φ</td> <td>5000</td> </tr> <tr> <td>8φ</td> <td>8000</td> </tr> <tr> <td>≥ 10φ</td> <td>10000</td> </tr> </tbody> </table>	Dφ	Life (hours)	< 8φ	5000	8φ	8000	≥ 10φ
Dφ	Life (hours)								
< 8φ	5000								
8φ	8000								
≥ 10φ	10000								
Shelf Life	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.							

Multiplier for Ripple Current vs. Frequency

Frequency(Hz)	120	1K	10K	≥ 50K
Multiplier	0.5	0.8	0.85	1.0

Diagram of Dimensions:(unit:mm)



Dφ	5	6	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5		0.6		0.8		

α	D < 16	D=16		D=18		D > 18
		L: 25-35.5	L < 25 and L ≥ 40	L: 25-31.5	L < 25 and L ≥ 35.5	
	1.5	1.5	2.0	1.5	2.0	2.0

Case Size

WV (Vdc)	Cap (uF)	Size mm	Rated Ripple current (mArms/105°C /100KHz)
160	10	10x16	330
160	22	10x20	510
160	33	10x20	660
160	33	13x20	760
160	47	10x20	760
160	47	13x20	870
160	68	13x20	1190
160	68	13x25	1350
160	82	13x20	1280
160	100	13x25	1430
160	100	16x20	1430
160	100	18x20	1530
160	150	16x20	1900
160	150	18x25	2180
160	220	16x25	2380
160	220	18x25	2540
160	330	18x31.5	3140
200	10	10x16	330
200	10	10x20	360
200	22	10x20	510
200	33	10x20	660
200	33	13x20	760
200	47	13x20	990
200	68	13x20	1310
200	82	16x20	1390
200	100	16x20	1430
200	100	18x20	1530
200	150	16x25	1900
200	150	18x25	2030
200	220	18x25	2370
200	220	18x31.5	2620
200	330	18x35.5	3230
250	10	10x20	360
250	22	10x20	510
250	22	13x20	590
250	33	13x20	810
250	33	13x25	890
250	47	13x20	990
250	47	16x20	1130
250	68	16x20	1310
250	68	18x20	1400
250	82	16x20	1390
250	100	16x25	1540
250	100	18x25	1640
250	150	18x25	1950
250	150	18x31.5	2150
250	220	18x31.5	3140
350	6.8	10x16	290
350	6.8	10x20	310
350	10	10x20	360
350	10	13x20	410
350	22	13x20	660
350	22	13x25	720
350	33	16x20	910
350	47	16x20	1090
350	47	18x20	1160
350	68	16x25	1410
350	68	18x20	1380
350	68	18x25	1480
350	82	18x25	1540

WV (Vdc)	Cap (uF)	Size mm	Rated Ripple current (mArms/105°C /100KHz)
350	100	18x25	1580
350	120	18x31.5	1870
350	150	18x35.5	2170
400	6.8	10x12.5	260
400	6.8	10x16	290
400	6.8	10x20	310
400	10	10x16	330
400	10	10x20	360
400	10	13x20	410
400	15	13x20	560
400	22	13x20	770
400	22	16x20	880
400	22	16x25	950
400	33	16x20	910
400	33	18x20	970
400	47	16x25	1190
400	47	18x20	1190
400	47	18x25	1270
400	68	18x25	1480
400	68	18x31.5	1630
400	82	18x25	1530
400	100	18x31.5	1730
400	120	18x35.5	1950
400	150	18x40	2220
450	6.8	10x20	290
450	6.8	13x20	330
450	10	13x20	460
450	10	13x25	500
450	15	13x20	550
450	15	13x25	610
450	22	13x25	710
450	22	16x20	760
450	22	16x25	790
450	33	16x25	990
450	33	18x20	990
450	33	18x25	1060
450	47	18x25	1210
450	47	18x31.5	1330
450	68	18x31.5	1580
450	82	18x35.5	1790
450	100	18x40	1810