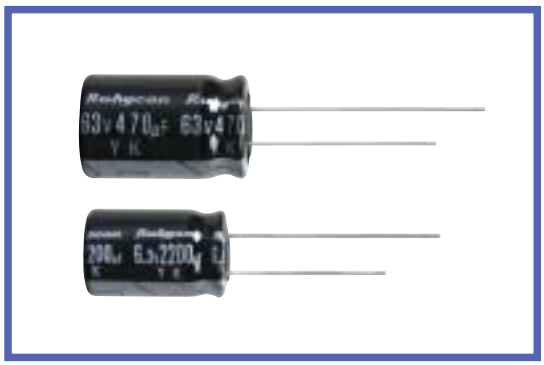
YK SERIES

85°C Standard



◆FEATURES

- Load life : 85°C 2000 hours.
- RoHS compliance.

◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	−40 ~+85°C	−25 ~+85°C
Rated Voltage Range	6.3~250V.DC	350~450V.DC
Capacitance Tolerance	±20%(20°C, 120Hz)	
Leakage Current(MAX)	6.3~100V.DC	160~450V.DC
	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage)	CV ≦1000: I=0.1CV+40μA (1minute) I=0.03CV+15μA (5minutes) CV >1000: I=0.04CV+100μA (1minute) I=0.02CV+25μA (5minutes)
	I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)	

Dissipation Factor(MAX) (tanδ) (20°C, 120Hz)

Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
tanδ	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	0.20	0.20	0.20	0.20	0.20	0.20

When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.

Endurance

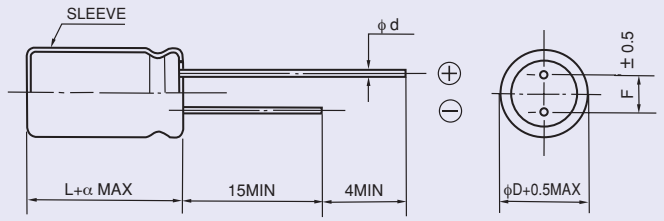
After applying rated voltage with rated ripple current for 2000hrs at 85°C, the capacitors shall meet the following requirements.

Capacitance Change	Within ± 25% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.
Leakage Current	Not more than the specified value.

Low Temperature Stability Impedance Ratio(MAX) (120Hz)

Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
Z(−25°C)/Z(20°C)	4	3	2	2	2	2	2	2	3	3	3	5	5	7
Z(−40°C)/Z(20°C)	8	6	4	4	3	3	3	3	—	—	—	—	—	—

◆DIMENSIONS (mm)



φD	5	6.3	8	10	12.5	16	18
φd	0.5		0.6			0.8	
F	2.0	2.5	3.5	5.0		7.5	
α	WV ≦ 100:1.5 WV ≧ 160:2.0					2.0	

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k≦
Coefficient	0.1~1μF	0.50	1.00	1.20	1.30	1.50
	2.2~4.7μF	0.65	1.00	1.20	1.30	1.50
	10~47μF	0.80	1.00	1.20	1.30	1.50
	100~1000μF	0.80	1.00	1.10	1.15	1.20
	2200~22000μF	0.80	1.00	1.05	1.10	1.15

◆PART NUMBER

□□□	YK	□□□□□	□	□□□	□□	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

◆STANDARD SIZE, RATED RIPPLE CURRENT

Size φ D×L(mm), Ripple Current (mA r.m.s./85°C, 120Hz)

WV(V.DC) / Cap(μF)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											5×11	1.1		
0.15											5×11	1.5		
0.22											5×11	2.5		
0.33											5×11	4		
0.47											5×11	7		
1											5×11	13		
2.2											5×11	23		
3.3											5×11	35		
4.7											5×11	41		
10											5×11	60	5×11	70
22									5×11	90	5×11	95	5×11	110
33							5×11	98	5×11	110	5×11	130	6.3×11	140
47					5×11	115	5×11	120	5×11	135	6.3×11	160	6.3×11	190
100	5×11	135	5×11	140	5×11	175	5×11	185	6.3×11	215	8×11.5	270	8×11.5	290
220	5×11	220	5×11	230	6.3×11	280	6.3×11	310	8×11.5	370	10×12.5	435	10×16	490
330	6.3×11	280	6.3×11	310	8×11.5	380	8×11.5	410	10×12.5	500	10×16	590	10×20	680
470	6.3×11	360	6.3×11	400	8×11.5	460	10×12.5	550	10×16	680	10×20	760	12.5×20	880
1000	8×11.5	590	10×12.5	660	10×16	800	10×20	970	12.5×20	1180	12.5×25	1350	16×25	1350
2200	10×16	920	10×20	1090	12.5×20	1320	12.5×25	1570	16×25	1810	16×35.5	2110	18×35.5	2300
3300	10×20	1200	12.5×20	1440	12.5×25	1670	16×25	2000	16×35.5	2300	18×35.5	2540		
4700	12.5×20	1550	12.5×25	1800	16×25	2120	16×31.5	2440	18×35.5	2740				
6800	12.5×25	1920	16×25	2250	16×31.5	2540	18×35.5	2900						
10000	16×25	2370	16×35.5	2710	18×35.5	2950								
15000	16×35.5	2880	18×35.5	3110										
22000	18×40	3350												

WV(V.DC) / Cap(μF)	100 (2A)		160 (2C)		200 (2D)		250 (2E)		350 (2V)		400 (2G)		450 (2W)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47	5×11	8					6.3×11	8	6.3×11	8	6.3×11	8	8×11.5	8
1	5×11	16					6.3×11	16	6.3×11	16	6.3×11	16	8×11.5	16
2.2	5×11	35					6.3×11	30	8×11.5	31	10×12.5	31	10×12.5	29
3.3	5×11	45			6.3×11	36	8×11.5	45	10×12.5	45	10×12.5	43	10×16	40
4.7	5×11	50	6.3×11	45	8×11.5	51	8×11.5	54	10×12.5	56	10×16	56	10×20	56
10	5×11	75	8×11.5	83	10×12.5	85	10×16	90	10×20	100	12.5×20	90	12.5×20	84
22	6.3×11	135	10×16	133	10×20	135	12.5×20	150	12.5×25	185	12.5×25	180	16×25	140
33	8×11.5	185	10×20	180	12.5×20	205	12.5×20	205	16×25	230	16×25	230	16×31.5	180
47	10×12.5	235	12.5×20	230	12.5×20	230	12.5×25	260	16×31.5	280	16×31.5	280	16×35.5	220
100	10×20	380	12.5×25	385	16×25	400	16×31.5	450	18×40	420	18×40	420		
220	12.5×25	629	16×35.5	645	18×35.5	680								
330	12.5×25	760	18×35.5	760										
470	16×25	950												
1000	18×40	1350												