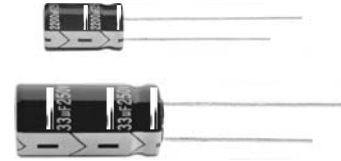


RK Wide Temperature Range Series

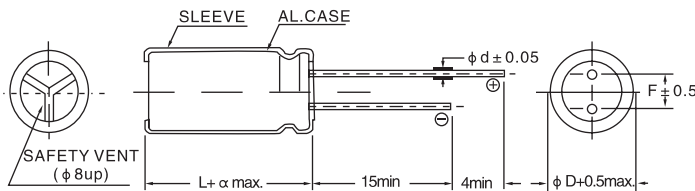
- Wide operating temperature range of $-40^{\circ}\text{C}\sim+105^{\circ}\text{C}$
- Standard series for general purposes
- Load life of 2000 hours at 105°C



• SPECIFICATIONS

Item	Characteristics														
Operating Temperature Range	$-40\sim+105^{\circ}\text{C}$	$-25\sim+105^{\circ}\text{C}$													
Rated Working Voltage Range	6.3~250V.DC	350~450V.DC													
Capacitance Tolerance	$\pm 20\%$ (M)at 120Hz.25 $^{\circ}\text{C}$														
Leakage Current (max.)	WV ≤ 100 V. DC														
	I=0.01CV or $3\mu\text{A}$ whichever is greater after 2 minutes. I=0.03CV or $4\mu\text{A}$ whichever is greater after 1 minute.	I=0.02CV+ $15\mu\text{A}$ after 5minutes.													
	I: Leakage Current (μA) C: Nominal Capacitance(μF) Rated Working Voltage (V)														
Dissipation Factor (tan δ) (at 120Hz, 25 $^{\circ}\text{C}$) (max.)	When nominal capacitance is over 1000 μF , tan δ shall be added 0.02 to the listed value with increase of every 1000 μF														
	WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
tan δ	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.07	0.15	0.15	0.15	0.20	0.20	0.20	
Low Temperature Stability (Impedance ratio at 120Hz)	WV	6.3	10	16	25	35~100	160	200~350	400,450						
	Z(-25 $^{\circ}\text{C}$)/Z(+25 $^{\circ}\text{C}$)	4	3	2	2	2	3	3	8						
	Z(-40 $^{\circ}\text{C}$)/Z(+25 $^{\circ}\text{C}$)	8	6	4	3	3	4	4	—						
Load Life	After 1000 or 2000 hours application of W. V. at 105 $^{\circ}\text{C}$, the capacitor shall meet the following limits.														
	Capacitance Change	$\leq \pm 20\%$ of the initial measured value.							Case Dia.	Life Time (hrs)					
	Dissipation Factor	$\leq 200\%$ of initial specified value.							$\phi D \leq 8$	1000					
	Leakage current	\leq the initial specified value.							$\phi D \geq 10$	2000					
Shelf Life	At 105 $^{\circ}\text{C}$ no voltage applied after 500 hours, the capacitor shall meet the following limits.														
	Capacitance Change	$\leq + 20\%$ of the initial measured value.													
	Dissipation Factor	$\leq 200\%$ of initial specified value.													
	Leakage Current (6.3 to 100 VDC)	\leq the initial specified value.													
	Leakage Current (160 to 450VDC)	$\leq 500\%$ of the initial specified value.													
Reference Standard	JISC - 5141														

• DRAWING(Unit:mm)



ϕD	5	6.3	8	10	13	16	18	22	25
F	2.0	2.5	3.5	50	7.5	10.0	12.5		
ϕd	0.5			0.6	0.8		1.0		
α	1.0			1.5			2.0		

• MULTIPLIER FOR RIPPLE CURRENT

Frequency Multipliers

Frequency Cap. (μF)	50Hz	120Hz	300Hz	1kHz	$\geq 10\text{kHz}$
0.1~47	0.75	1	1.35	1.55	2.0
68~680	0.80	1	1.25	1.34	1.5
1000~15000	0.85	1	1.10	1.13	1.15

Temperature Multipliers

Temp.($^{\circ}\text{C}$)	40	60	70	85	105
Coefficient	2.4	2.1	1.78	1.65	1.00

RK SERIES

• DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Cap.(μ F)	6.3		10		16		25		35		50		63	
	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.
0.47											5×11	8	5×11	8
0.68											5×11	9	5×11	9
1.0											5×11	13	5×11	13
2.2											5×11	20	5×11	20
3.3											5×11	25	5×11	28
4.7											5×11	30	5×11	34
6.8											5×11	37	5×11	40
10							5×11	38	5×11	41	5×11	46	5×11	50
22					5×11	54	5×11	57	5×11	61	5×11	68	6.3×11	82
33			5×11	60	5×11	64	5×11	69	5×11	75	6.3×11	90	8×12	100
47			5×11	71	5×11	80	5×11	106	6.3×11	110	6.3×11	125	8×12	135
68			5×11	83	5×11	85	6.3×11	114	6.3×11	121	8×11	144	8×12	168
100	5×11	95	5×11	100	6.3×11	120	6.3×11	145	8×12	140	8×12	180	8×16	215
220	6.3×11	150	6.3×11	170	8×12	195	8×12	225	8×16	250	10×17	345	10×17	390
330	6.3×11	190	8×12	235	8×12	265	8×16	330	10×17	395	10×20	460	13×21	500
470	8×12	245	8×12	275	8×16	370	10×17	400	10×20	520	13×21	600	13×25	700
680	8×12	314	8×16	390	10×17	480	10×20	520	13×21	590	13×25	740	16×26	870
1000	10×12	410	10×17	550	10×20	645	13×21	775	13×25	860	16×26	960	16×26	1120
2200	10×20	730	13×21	780	13×25	1000	16×26	1100	16×31	1260	18×31	1480	22×40	1512
3300	13×21	845	13×25	1030	16×26	1200	16×31	1320	18×35	1610	18×40	1760	25×40	1940
4700	13×25	1240	13×30	1400	16×31	1510	18×31	1580	18×40	1820	22×40	1925	25×45	2146
6800	16×26	1370	16×31	1610	18×35	1620	18×40	1730	22×40	2016	25×40	2172	30×40	2368
10000	16×31	1620	18×35	1860										
15000	18×35	2030												

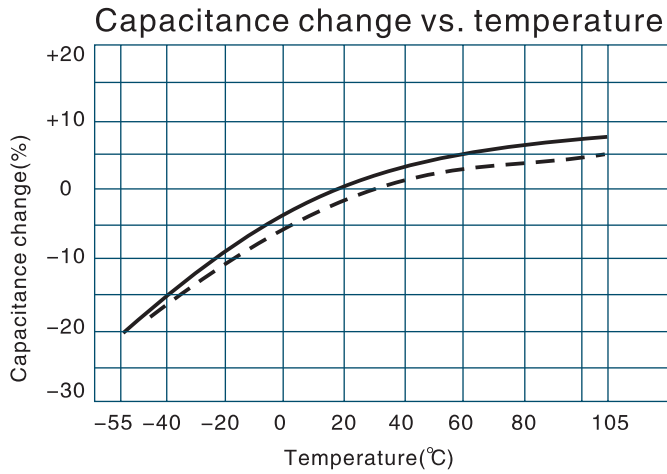
WV Cap.(μ F)	100		160		200		250		350		400		450	
	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.
0.47	5×11	10	6.3×11	12	6.3×11	12	6.3×11	12	6.3×11	12	6.3×11	12	8×11	12
0.68	5×11	11	6.3×11	13	6.3×11	13	6.3×11	13	6.3×11	13	6.3×11	13	8×11	13
1.0	5×11	15	6.3×11	16	6.3×11	16	6.3×11	16	8×11	16	8×11	16	10×12	17
2.2	5×11	23	6.3×11	23	6.3×11	23	8×11	24	10×12	24	10×12	26	10×17	31
3.3	5×11	30	6.3×11	34	8×11	34	10×12	34	10×17	34	10×17	35	10×20	42
4.7	5×11	37	8×11	40	10×12	40	10×12	40	10×17	42	10×17	42	10×20	50
6.8	6.3×11	42	10×12	48	10×12	52	10×17	57	10×20	61	10×20	61	13×21	66
10	6.3×11	56	10×12	60	10×17	60	10×17	70	10×20	70	13×21	76	13×25	75
22	8×11	94	10×17	96	10×20	105	13×21	130	13×25	134	16×26	136	16×31	130
33	10×13	120	10×20	140	13×21	140	13×25	150	16×26	150	16×26	160	16×35	170
47	10×17	150	13×21	160	13×25	170	16×26	200	16×31	206	16×35	210	18×40	190
68	10×20	219	13×21	220	13×25	227	16×26	236	18×35	261	18×40	276		
100	13×21	250	16×26	255	16×31	260	16×35	320	18×40	335				
220	16×26	450	18×35	493	18×40	520								
330	16×26	625	18×40	647										
470	16×35	780												
680	18×35	1060												

RK SERIES

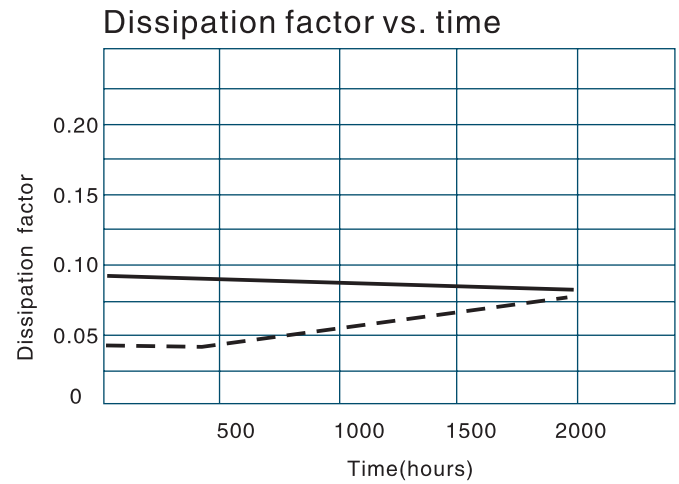
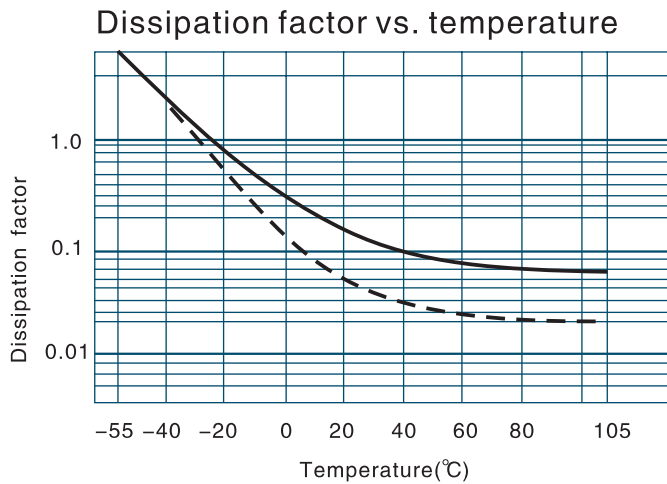
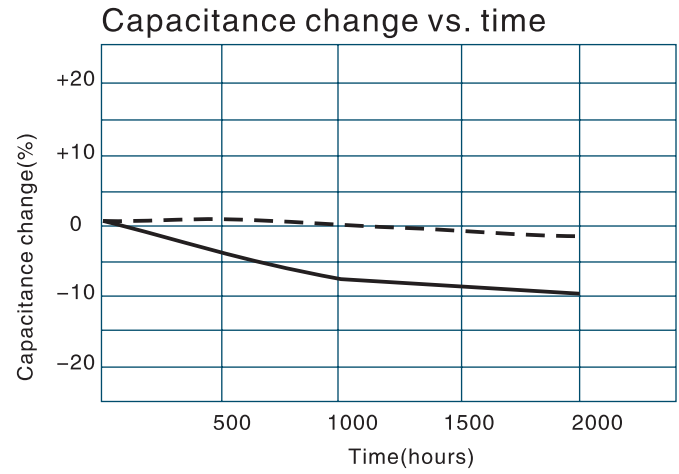
— 16V 1000 μ F
 - - - 200V 10 μ F

● TYPICAL PERFORMANCE

● TEMPERATURE CHARACTERISTICS



● LOAD LIFE (at +105°C)



● FREQUENCY CHARACTERISTICS

