



## RXK Series

### Features

- 105°C, 2,000 ~ 5,000 hours assured
- Low ESR, suitable for switching power supplies
- Smaller size with large permissible ripple current
- RoHS Compliance

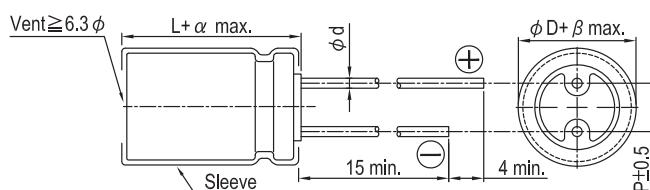


### Specifications

Sleeve & Marking Color: Black & Golden

Items	Performance							
Category Temperature Range	-55°C ~ +105°C							
Capacitance Tolerance	±20% (at 120Hz, 20°C)							
Leakage Current (at 20°C)	I = 0.01CV or 3 (µA) whichever is greater (after 2 minutes) Where, C = rated capacitance in µF, V = rated DC working voltage in V							
Tanδ (at 120Hz, 20°C)	Rated Voltage	6.3	10	16	25	35	50	63
	Tanδ (max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09
	When the capacitance exceeds 1,000µF, 0.02 shall be added every 1,000µF increase.							
Low Temperature Characteristics (at 120Hz)	Rated Voltage	6.3	10	16	25	35	50	63
	Impedance Ratio  Z(-55°C)/Z(+20°C)	4	4	3	3	3	3	3
Endurance	Test Time	2,000 Hrs for $\phi D \leq 6.3$ mm; 3,000 Hrs for $\phi D = 8$ mm; 4,000 Hrs for $\phi D = 10$ mm; 5,000 Hrs for $\phi D \geq 12.5$ mm						
	Capacitance Change	Within ±20% of initial value						
	Tanδ	Less than 200% of specified value						
	Leakage Current	Within specified value						
* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 ~ 5,000 hours at 105°C.								
Shelf Life Test	Test Time	1,000 Hrs						
	Capacitance Change	Within ±20% of initial value						
	Tanδ	Less than 200% of specified value						
	Leakage Current	Within specified value						
* The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.								
Ripple Current and Frequency Multipliers	Freq.(Hz)	60 (50)	120	500	1k	10k	100k	
	Cap.(µF)							
	Under 33	0.40	0.55	0.65	0.80	0.90	1.00	
	39 ~ 330	0.60	0.70	0.80	0.90	0.95	1.00	
	390 ~ 1,000	0.65	0.80	0.85	0.98	1.00	1.00	
	1,200 up above	0.80	0.90	0.95	0.98	1.00	1.00	

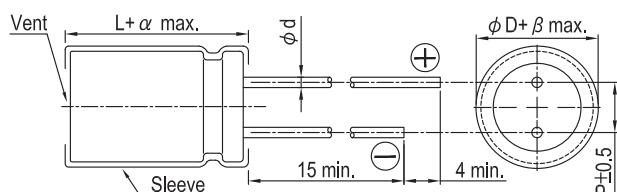
### Diagram of Dimensions



### Lead Spacing and Diameter Unit: mm

φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5		0.6			0.8	
α		L<20: 1.5, L≥20: 2.0					
β			0.5				

The case size of 16×20 is suitable for below diagram:



Dimension:  $\phi D \times L(\text{mm})$ 

Ripple Current: mA/rms at 100k Hz, 105°C

## Dimension and Permissible Ripple Current

Cap. (µF)	Rated Volt. V <sub>DC</sub>	6.3V (0J)					10V (1A)					16V (1C)							
		Φ D×L		Impedance (Ω, max./100k Hz) 20°C   -10°C		Ripple Current (mA/rms, 105°C) 120 Hz   100k Hz		Φ D×L		Impedance (Ω, max./100k Hz) 20°C   -10°C		Ripple Current (mA/rms, 105°C) 120 Hz   100k Hz		Φ D×L		Impedance (Ω, max./100k Hz) 20°C   -10°C		Ripple Current (mA/rms, 105°C) 120 Hz   100k Hz	
56															5×11	0.72	1.8	116	165
68															5×11	0.72	1.8	126	180
82								5×11	0.72	1.8	116	165							
100								5×11	0.72	1.8	126	180							
120	5×11	0.72	1.8	116	165								6.3×11	0.38	0.95	179	255		
180							6.3×11	0.38	0.95	179	255	6.3×15	0.27	0.68	231	330			
220	6.3×11	0.38	0.95	179	255	6.3×11	0.38	0.95	196	280									
270	6.3×11	0.38	0.95	196	280	6.3×15	0.27	0.68	231	330	8×11.5 10×12.5	0.20 0.12	0.50 0.30	291	438	291	415		
330	6.3×15	0.27	0.68	231	330	8×11.5	0.20	0.50	291	415	8×11.5 8×15 10×12.5	0.20 0.16 0.12	0.50 0.40 0.30	315	450	347	495		
390	8×11.5	0.20	0.50	332	415	8×11.5 10×12.5	0.20 0.12	0.50 0.30	360	450									
470	8×11.5 10×12.5	0.20 0.12	0.50 0.30	360	450	8×15 10×12.5	0.16 0.12	0.40 0.30	396	495	8×15 8×20 10×16	0.16 0.11 0.084	0.40 0.28 0.21	472	590	512	640		
560	8×15 10×12.5	0.16 0.12	0.40 0.30	396	495	8×15	0.16	0.40	472	590	8×20 10×16	0.11 0.084	0.28 0.21	560	700	728	910		
680	10×16	0.084	0.21	660	825	8×20 10×16	0.11 0.084	0.28 0.21	512	640	10×20	0.062	0.16	832	1,040				
820	8×15 8×20 10×16	0.16 0.11 0.084	0.40 0.28 0.21	472	590	8×20 10×16	0.11 0.084	0.28 0.21	560	700	10×20 10×25	0.062 0.052	0.16 0.13	904	1,130	1,008	1,260		
1,000	8×20	0.11	0.28	560	700	10×20	0.062	0.16	832	1,040	10×25	0.052	0.13	1,112	1,390				
1,200	10×20	0.062	0.16	936	1,040	10×20 10×25	0.062 0.052	0.16 0.13	1,017 1,134	1,130 1,260	10×30 12.5×20	0.044 0.046	0.11 0.12	1,296	1,440	1,206	1,340		
1,500	10×20 10×25	0.062 0.052	0.16 0.13	1,017	1,130	10×25	0.052	0.13	1,251	1,390	10×30 12.5×20 12.5×25	0.044 0.046 0.034	0.11 0.12 0.085	1,413	1,570	1,305	1,450		
1,800	10×25	0.052	0.13	1,251	1,390	10×30 12.5×20	0.044 0.046	0.11 0.12	1,413 1,206	1,570 1,340	12.5×25	0.034	0.085	1,629	1,810	1,570	1,810		
2,200	10×30 12.5×20	0.044 0.046	0.11 0.12	1,296	1,440	12.5×20 12.5×25	0.046 0.034	0.12 0.085	1,305 1,521	1,450 1,690	12.5×30 16×20	0.030 0.035	0.075 0.087	1,755	1,950	1,485	1,650		
2,700	10×30 12.5×20 12.5×25	0.044 0.046 0.034	0.11 0.12 0.085	1,413	1,570	12.5×25 12.5×30	0.034 0.030	0.085 0.075	1,629 1,755	1,810 1,950	12.5×30 12.5×35 16×25	0.030 0.027 0.028	0.075 0.068 0.070	1,917	2,130	1,980	2,200		
3,300	12.5×25	0.034	0.085	1,629	1,810	12.5×30 12.5×35	0.030 0.027	0.075 0.068	1,917 1,980	2,130 2,200	12.5×35 12.5×40 16×25	0.027 0.024 0.028	0.068 0.060 0.070	2,151	2,390	2,196	2,440		
3,900	12.5×30	0.030	0.075	1,755	1,950	12.5×35 12.5×40 16×20 16×25	0.027 0.024 0.035 0.028	0.068 0.060 0.087 0.070	2,196 2,151 1,692 1,863	2,390 2,440 1,880 2,070	16×31.5	0.025	0.063	2,115	2,350				
4,700	12.5×30 12.5×35 16×20	0.030 0.027 0.035	0.075 0.068 0.087	1,917 1,980 1,440	2,130 2,200 1,600	12.5×40	0.024	0.060	2,358 2,025	2,620 2,250	16×31.5 16×35.5	0.025 0.022	0.055 0.055	2,295	2,550	2,295	2,550		
5,600	12.5×35	0.027	0.068	2,151	2,390	16×31.5	0.025	0.063	2,115	2,350	16×35.5 16×40	0.022 0.018	0.055 0.045	2,394	2,660	2,610	2,900		
6,800	12.5×40 16×25 16×31.5	0.024 0.028 0.025	0.060 0.070 0.063	2,358 2,025 2,115	2,620 2,250 2,350	16×31.5 16×35.5	0.025 0.022	0.063 0.055	2,295 2,295	2,550 2,550	16×40 18×35.5	0.018 0.021	0.045 0.053	2,844	3,160	2,448	2,720		
8,200	16×31.5	0.025	0.063	2,295	2,550	16×35.5	0.022	0.055	2,448	2,720	18×35.5	0.021	0.053	2,601	2,890				
10,000	16×35.5	0.022	0.055	2,691	2,990														



## Dimension and Permissible Ripple Current

Dimension:  $\phi D \times L(\text{mm})$ 

Ripple Current: mA/rms at 100k Hz, 105°C

Cap. (µF)	Rated Volt. V <sub>DC</sub>	25V (1E)					35V (1V)					50V (1H)				
		φ D×L	Impedance (Ω, max./100k Hz)		Ripple Current (mA/rms, 105°C)		φ D×L	Impedance (Ω, max./100k Hz)		Ripple Current (mA/rms, 105°C)		φ D×L	Impedance (Ω, max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120 Hz	100k Hz		20°C	-10°C	120 Hz	100k Hz		20°C	-10°C	120 Hz	100k Hz
18												5×11	1.1	3.3	72	130
22												5×11	1.1	3.3	83	150
27							5×11	0.72	1.8	91	165					
33							5×11	0.72	1.8	99	180					
39	5×11	0.72	1.8	116	165							6.3×11	0.56	1.6	154	220
47	5×11	0.72	1.8	126	180							6.3×11	0.56	1.6	161	230
56							6.3×11	0.38	0.95	179	255	6.3×15	0.41	1.2	217	310
68							6.3×11	0.38	0.95	196	280	8×11.5	0.29	0.84	238	340
82	6.3×11	0.38	0.95	179	255	6.3×15	0.27	0.68	231	330	8×11.5 8×15 10×12.5	0.29 0.25 0.16	0.84 0.75 0.40	249 329 355	355 470 480	
100	6.3×11	0.38	0.95	196	280							10×12.5	0.16	0.40	371	530
120	6.3×15	0.27	0.68	231	330	8×11.5 10×12.5	0.20 0.12	0.50 0.30	291 438	415 625	8×15 8×20 10×16	0.25 0.18 0.12	0.75 0.52 0.30	392 427 529	560 610 755	
150	8×11.5	0.20	0.50	291	415	8×11.5 10×12.5	0.20 0.12	0.50 0.30	315 473	450 675	10×16	0.12	0.30	588	840	
180	8×11.5 10×12.5	0.20 0.12	0.50 0.30	315 438	450 625	8×15	0.16	0.40	347	495	8×20 10×20	0.18 0.088	0.52 0.22	525 662	750 945	
220	8×15 10×12.5	0.16 0.12	0.40 0.30	347 473	495 675	8×15 8×20 10×16	0.16 0.11 0.084	0.40 0.28 0.21	413 448 578	590 640 825	10×20 10×25	0.088 0.068	0.22 0.17	728 805	1,040 1,150	
270						8×20 10×16	0.11 0.084	0.28 0.21	490 637	700 910	10×25	0.068	0.17	896	1,280	
330	8×15 8×20 10×16	0.16 0.11 0.084	0.40 0.28 0.21	413 448 578	590 640 825	10×20	0.062	0.16	728	1,040	10×30 12.5×20	0.059 0.059	0.15 0.15	882 833	1,260 1,190	
390	8×20 10×16	0.11 0.084	0.28 0.21	560 728	700 910	10×20 10×25	0.062 0.052	0.16 0.13	904 1,008	1,130 1,260	12.5×20	0.059	0.15	952	1,190	
470	10×20	0.062	0.16	832	1,040	10×25	0.052	0.13	1,112	1,390	10×30 12.5×25	0.059 0.045	0.15 0.11	1,176 1,192	1,470 1,490	
560	10×20 10×25	0.062 0.052	0.16 0.13	904 1,008	1,130 1,260	10×30 12.5×20	0.044 0.046	0.11 0.12	1,152 1,072	1,440 1,340	12.5×25 12.5×30	0.045 0.039	0.11 0.098	1,304 1,376	1,630 1,720	
680	10×25	0.052	0.13	1,112	1,390	10×30 12.5×20 12.5×25	0.044 0.046 0.034	0.11 0.12 0.085	1,256 1,160 1,352	1,570 1,450 1,690	12.5×30 12.5×35 16×20	0.039 0.033 0.048	0.098 0.083 0.120	1,520 1,512 1,248	1,800 1,900 1,560	
820	10×30 12.5×20	0.044 0.046	0.11 0.12	1,152 1,072	1,440 1,340	12.5×25	0.034	0.085	1,448	1,810	12.5×35 12.5×40 16×25	0.033 0.029 0.033	0.083 0.073 0.083	1,624 1,656 1,504	2,030 2,070 1,880	
1,000	10×30 12.5×20 12.5×25	0.044 0.046 0.034	0.11 0.12 0.085	1,256 1,160 1,352	1,570 1,450 1,690	12.5×30 16×20	0.030 0.035	0.075 0.087	1,560 1,376	1,950 1,720	12.5×40 16×25 16×31.5	0.029 0.033 0.029	0.073 0.083 0.073	1,800 1,664 1,720	2,250 2,080 2,150	
1,200	12.5×25	0.034	0.085	1,629	1,810	12.5×30 12.5×35 16×25	0.027 0.028	0.068 0.070	1,917 1,980 1,863	2,130 2,200 2,070	16×31.5 16×35.5	0.029	0.073	2,088	2,320	
1,500	12.5×30 16×20	0.030 0.035	0.075 0.087	1,755 1,539	1,950 1,710	12.5×35 12.5×40 16×25	0.027 0.024 0.028	0.068 0.060 0.070	2,151 2,196 2,025	2,390 2,440 2,250	16×35.5 16×40	0.025	0.063	2,160	2,400	
1,800	12.5×30 12.5×35 16×25	0.030 0.027 0.028	0.075 0.068 0.070	1,917 1,980 1,863	2,130 2,200 2,070	12.5×40 16×31.5	0.024 0.025	0.060 0.063	2,358 2,115	2,620 2,350	16×40 18×35.5	0.021 0.023	0.063 0.058	2,466 2,286	2,740 2,540	
2,200	12.5×35 12.5×40 16×25	0.027 0.024 0.028	0.068 0.060 0.070	2,151 2,196 2,025	2,390 2,440 2,250	16×31.5 16×35.5	0.025 0.022	0.063 0.055	2,295 2,295	2,550 2,550	18×35.5 18×40	0.023 0.020	0.058 0.050	2,349 2,385	2,610 2,650	
2,700	16×31.5	0.025	0.063	2,115	2,350	16×35.5 16×40 18×35.5	0.022 0.018 0.021	0.055 0.045 0.053	2,394 2,610 2,448	2,660 2,900 2,720						
3,300	16×31.5 16×35.5	0.025 0.022	0.063 0.055	2,295 2,295	2,550 2,550	18×35.5 18×40	0.021 0.017	0.053 0.043	2,601 2,709	2,890 3,010						
3,900	16×35.5	0.022	0.055	2,394	2,660											
4,700	18×35.5	0.021	0.053	2,601	2,890											
5,600	18×40	0.017	0.043	2,934	3,260											



## Dimension and Permissible Ripple Current

Dimension:  $\phi D \times L(\text{mm})$   
 Ripple Current: mA/rms at 100k Hz, 105°C

Cap. ( $\mu\text{F}$ )	Rated Volt. V <sub>DC</sub>	63V(1J)				
		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120 Hz	100k Hz
12		5×11	1.90	4.78	55	100
27		6.3×11	1.10	2.78	88	160
33		6.3×11	1.10	2.75	96	175
39		6.3×15	0.62	1.55	161	230
47		8×11.5	0.49	1.23	193	275
56		8×11.5 10×12.5	0.49 0.27	1.23 0.675	203 294	290 420
68		8×15 10×12.5 10×16	0.34 0.27 0.21	0.850 0.675 0.525	252 354 366	360 505 523
82		8×20	0.21	0.525	350	500
100		8×15	0.34	0.850	308	440
120		10×16 10×20	0.210 0.160	0.525 0.400	455 490	650 700
150		8×20 10×25	0.210 0.130	0.525 0.325	476 546	680 780
180		10×20 10×30	0.160 0.100	0.400 0.250	553 672	790 960
220		10×25 12.5×20	0.130 0.110	0.325 0.275	648 609	925 870
270		10×30 12.5×25	0.100 0.074	0.250 0.185	812 805	1,160 1,150
330		12.5×20	0.110	0.275	746	1,065
390		12.5×25 12.5×30	0.074 0.068	0.185 0.170	1,088 1,024	1,280 1,360
470		12.5×30 12.5×35 16×20 16×25	0.068 0.063 0.059 0.055	0.170 0.158 0.148 0.138	1,120 1,112 1,080 1,184	1,360 1,400 1,350 1,480
560		12.5×40 16×25	0.051 0.055	0.128 0.138	1,224 1,296	1,530 1,620
680		12.5×40 16×31.5	0.051 0.046	0.128 0.115	1,336 1,376	1,670 1,720
820		12.5×40 16×31.5 16×35.5	0.051 0.046 0.040	0.128 0.115 0.100	1,480 1,512 1,528	1,850 1,890 1,910
1,000		16×35.5 18×35.5	0.040 0.040	0.100 0.100	1,576 1,688	1,970 2,110
1,500		18×35.5	0.040	0.100	2,169	2,410

## Part Numbering System

RXK Series	470 $\mu\text{F}$	$\pm 20\%$	6.3V	Bulk Package	Gas Type	8 $\phi \times 11.5\text{L}$	Pb-free and PET sleeve
<b>RXK</b>	<b>471</b>	<b>M</b>	<b>0J</b>	<b>BK</b>	<b>-</b>	<b>0811</b>	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Sleeve type

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 13.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

#### Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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