CK系列-宽温度品



- Operating with wide temperature range -55 ~ +105°C
  适用于 -55 ~ +105°C 的宽温范围
- Load life of 2000 hours
  負荷壽命 2000 小時
- Comply with the RoHS directive
  符合 RoHS 指令

☐ SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性
Operation Temperature Range 使用温度範圍	-55 ~ +105°C
Voltage Range 額定工作電壓範圍	4 ~ 100V
Capacitance Range 靜電容量範圍	0.1 ~ 6800μF
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C
Leakage Current 漏電流	Leakage current (⌀4~⌀10) ≦0.01CV or 3μA, whichever is greater (after 2 minutes application of rated voltage) Leakage current (⌀12.5~⌀16) ≦0.03CV or 4μA, whichever is greater (after 1 minute application of rated voltage) 漏電流 (⌀4~⌀10) ≦0.01CV 或 3μA，取較大值（施加額定工作電壓 2 分鐘後） 漏電流 (⌀12.5~⌀16) ≦0.03CV 或 4μA，取較大值（施加額定工作電壓 1 分鐘後）
Dissipation Factor (tan δ) 損耗角正切	Measurement frequency 測試頻率: 120Hz, Temperature 温度: 20°C

Rated Voltage (V) 額定工作電壓		4	6.3	10	16	25	35	50	63	100
tan δ (max.) 最大損耗角正切	⌀4~⌀10	0.35	0.30	0.24	0.20	0.16	0.14	0.14	0.12	0.12
	⌀12.5~⌀16	0.42	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.12

Stability at Low Temperature
低溫特性

Measurement frequency 測試頻率: 120Hz

Rated Voltage (V) 額定工作電壓			4	6.3	10	16	25	35	50~63	100
Impedance Ratio 阻抗比 ZT/Z20 (max.)	⌀4~⌀10	Z(-25°C) / Z(20°C)	7	4	3	2	2	2	2	3
		Z(-40°C) / Z(20°C)	15	8	6	4	4	3	3	4
	⌀12.5~⌀16	Z(-25°C) / Z(20°C)	7	5	4	3	2	2	2	2
		Z(-40°C) / Z(20°C)	17	12	10	8	5	4	3	3

Load Life
高溫負荷特性

After 2000 hrs. application of the rated voltage at 105°C, they meet the characteristics listed below. 在 105°C 環境中施加額定工作電壓 2000 小時後，電容器的特性符合下表的要求。

Capacitance Change 靜電容量變化率	Within ±20% of initial value for capacitors of 10V or more (Within ±30% of initial value for capacitors of 4V or less) ≥10V 為初始值的±20%以內（≤4V 為初始值的±30%以內）
Dissipation Factor 損耗角正切	200% or less of initial specified value 不大於規範值的 200%
Leakage Current 漏電流	initial specified value or less 不大於規範值

Shelf Life
高溫貯存特性

After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listedabove. 在 105°C 環境中無負荷放置 1000 小時後，電容器的特性符合高溫負荷特性中所列的規定值。

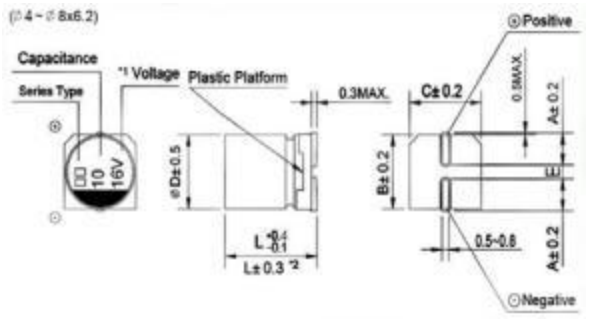
Resistance to Soldering Heat
耐焊接熱特性

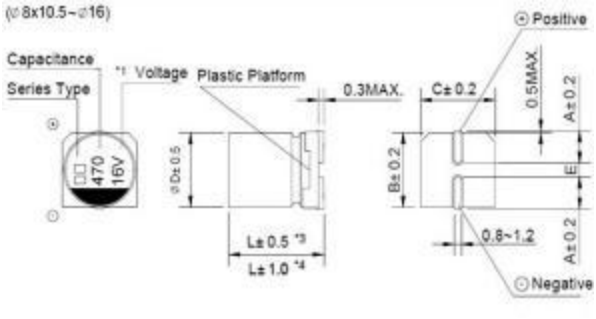
After reflow soldering and restored at room temperature, they meet the characteristics listed below.
經過回流焊並冷卻至室温後， 電容器的特性符合下表的要求。

Capacitance Change 靜電容量變化	Within ±10% of initial value 初始值的±10%以內
率 Dissipation Factor 損耗角正切	initial specified value or less 不大於規範值
Leakage Current 漏電流	initial specified value or less 不大於規範值

Marking 標示	Black print on the case top. 鋁殼頂部黑字印刷。

☐ DRAWING (Unit: mm) 外形圖





NOTE: All designs and specifications are for reference only and are subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.
注: 以上所提供的設計及特性參數僅供參考， 任何修改不作預先通知。如果在使用上有疑問，請在採購前與我們聯繫， 以便提供技術上的協助。 WWW.ROQANG.COM

ROQANG容强电子

☐ DIMENSIONS (Unit: mm) 尺寸表

ØD x L	4 x 5.4 C54	5 x 5.4 D54	6.3 x 5.4 E54	6.3 x 7.7 E77	8 x 6.2 F62	8 x 10.5 F10	10 x 10.5 G10	10 x 13.5 G12	12.5 x 13.5 I13	12.5 x 16 I16	16 x 16.5 J16
A	1.8	2.1	2.5	2.5	3.3	2.9	3.2	3.2	4.7	4.7	5.5
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	13.0	13.0	17.0
E ± 0.2	1.0	1.3	2.2	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.7
L	5.4	5.4	5.4	7.7	6.2	10.5	10.5	13.5	13.5	16.0	16.5

☐ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

WV / Code 代碼 / μF		4		6.3		10		16		25	
		0G		0J		1A		1C		1E	
4.7	4R7									4 × 5.4	13
10	100							4 × 5.4	18	5 × 5.4 (4 × 5.4)	20 (14)
22	220			4 × 5.4	22	5 × 5.4 (4 × 5.4)	25 (20)	5 × 5.4 (4 × 5.4)	27 (20)	6.3 × 5.4 (5 × 5.4)	36 (25)
33	330	5 × 5.4 (4 × 5.4)	30 (18)	5 × 5.4 (4 × 5.4)	27 (22)	5 × 5.4 (4 × 5.4)	30 (22)	6.3 × 5.4 (5 × 5.4)	40 (28)	6.3 × 5.4 (5 × 5.4)	44 (29)
47	470	5 × 5.4 (4 × 5.4)	36 (24)	5 × 5.4 (4 × 5.4)	33 (25)	6.3 × 5.4 (5 × 5.4) (4 × 5.4)	41 (30) (25)	6.3 × 5.4 (5 × 5.4)	48 (31)	6.3 × 5.4 (8 × 6.2)	48 (91)
100	101	6.3 × 5.4 (5 × 5.4)	60 (43)	6.3 × 5.4 (5 × 5.4)	50 (39)	6.3 × 5.4 (8 × 6.2)	53 (110)	6.3 × 5.4 (8 × 6.2)	60 (120)	6.3 × 7.7	91
150	151	6.3 × 5.4	52	6.3 × 5.4	55	6.3 × 5.4	62	6.3 × 7.7	95	8 × 10.5 (6.3 × 7.7)	140 (100)
220	221	6.3 × 5.4	57	6.3 × 7.7 (6.3 × 5.4)	105 (67)	6.3 × 7.7 (8 × 6.2)	105 (105)	8 × 10.5 (6.3 × 7.7) (8 × 6.2)	150 (105) (85)	8 × 10.5	175
330	331	6.3 × 7.7	100	6.3 × 7.7	105	8×10.5	196	8 × 10.5	195	10 × 10.5 (8 × 10.5)	240 (220)
470	471	6.3 × 7.7	105	8 × 10.5 (6.3 x 7.7)	210 (120)	10 × 10.5 (8 × 10.5) (6.3 x 7.7)	260 (210) (120)	10 × 10.5 (8 × 10.5)	295 (230)	10 × 10.5	280
680	681	8 × 10.5	210	8 × 10.5	210	10 × 10.5	270	10 × 10.5	315	10 × 13.5	400
1000	102	8 × 10.5	230	10 × 10.5 (8 × 10.5)	300 (230)	10 × 10.5 (8 × 10.5)	315 (230)	12.5 × 13.5 (10 × 13.5) (10 × 10.5)	500 (390) (340)	12.5 × 13.5	580
1500	152	10 × 10.5	315	10 × 13.5 (10 × 10.5)	450 (315)	10 × 13.5	460	12.5 × 13.5	550	12.5 × 16	850
2200	222	10 × 13.5 (10 × 10.5)	440 （340）	12.5 × 13.5 (10 × 13.5)	620 (500)	12.5 × 13.5	680	16 × 16.5 (12.5 × 16)	950 (750)	16 × 16.5	1050
3300	332	10 × 13.5	490	12.5 × 16 (12.5 × 13.5)	700 (660)	16 × 16.5	1000	16 × 16.5	1000		
4700	472	12.5 × 13.5	600	16 × 16.5	1000					Case size 尺寸	Ripple current 紋波電流
6800	682	16 × 16.5 (12.5 × 16)	950 （650）								

WV / Code 代碼 / μF		35		50		63		100	
		1V		1H		1J		2A	
0.1	0R1			4 × 5.4	0.7	4 × 5.4	0.7		
0.22	R22			4 × 5.4	1.6	4 × 5.4	1.6		
0.33	R33			4 × 5.4	2.5	4 × 5.4	2.5		
0.47	R47			4 × 5.4	3.5	4 × 5.4	3.5		
1	010			4 × 5.4	7	4 × 5.4	7	4 × 5.4	7
2.2	2R2			4 × 5.4	11	4 × 5.4	11	6.3 × 5.4	14
3.3	3R3	4 × 5.4	13	4 × 5.4	13	5 × 5.4	13	6.3 × 7.7 (6.3 × 5.4) (8 × 6.2)	32 (20) (30)
4.7	4R7	4 × 5.4	14	5 × 5.4 (4 × 5.4)	16 (13)	5 × 5.4	16	6.3 × 7.7 (6.3 × 5.4)	35 (21)
10	100	5 × 5.4 (4 × 5.4)	21 (14)	6.3 × 5.4	24	6.3 × 7.7 (6.3 × 5.4) (8 × 6.2)	39 (24) (25)	8 × 10.5 (6.3 × 7.7)	77 (35)
22	220	6.3 × 5.4	38	6.3 × 7.7 (6.3 × 5.4) (8 × 6.2)	51 (42) (70)	8 × 10.5 (6.3 × 7.7)	98 (49)	10 × 10.5 (8 × 10.5)	126 (84)
33	330	6.3 × 5.4 (8 × 6.2)	42 (84)	6.3 × 7.7	60	8 × 10.5	112	10 × 10.5	133
47	470	6.3 × 7.7 (6.3 × 5.4)	70 (50)	8 × 10.5 (6.3 × 7.7)	120 (63)	10 × 10.5 (8 × 10.5)	160 (119)	12.5 × 13.5 (10 × 13.5) (10 × 10.5)	250 (160) (140)
68	680					Case size 尺寸	Ripple current 紋波電流	12.5 x 13.5 (10 x 13.5)	300 (180)

•Case size ØD×L(mm), ripple current (mA rms) at 105°C 120Hz •尺寸ØD×L(mm)，紋波電流(mA rms)於 105°C 120Hz

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注: 以上所提供的設計及特性參數僅供參考，

☐ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

WV / Code 代碼 / μF		35		50		63		100	
		1V		1H		1J		2A	
100	101	8 × 10.5 (6.3 × 7.7)	120 (84)	10 × 10.5 (8 × 10.5)	170 (140)	12.5 × 13.5 (10 × 13.5) (10 × 10.5)	270 (210) (196)	16 × 16.5 (12.5 x 13.5)	450 (380)
150	151	8 × 10.5	155	10 × 10.5	170	10 × 13.5	225		
220	221	10 × 10.5 (8 × 10.5)	220 (190)	10 × 13.5 (10 × 10.5)	280 (220)	16 × 16.5 (12.5 × 13.5) (10 x 13.5)	560 (470) (235)	16 × 16.5	550
330	331	10 × 10.5	245	16 × 16.5 (12.5 × 13.5) (10 x 13.5)	600 (420) (295)	16 × 16.5 (12.5 × 16)	700 (510)		
470	471	12.5 × 13.5 (10 × 13.5) (10 × 10.5)	520 (375) (280)	16 × 16.5 (12.5 × 16)	700 (520)	16 × 16.5	750		
680	681	12.5 × 13.5 (10 × 13.5)	530 (395)	16 × 16.5	750			Case size 尺寸	Ripple current 紋波電流
1000	102	16 × 16.5 (12.5 × 16)	750 (600)						

▪Case size ⌀D×L(mm), ripple current (mA rms) at 105°C 120Hz ▪尺寸⌀D×L(mm)，紋波電流(mA rms)於 105°C 120Hz

☐ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT 紋波電流頻率補償系數

Frequency 頻率			50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient 系數	Ø4 ~ Ø10	0.1 ~ 68μF	0.70	1.00	1.17	1.36	1.50
		100 ~ 3300μF	0.85	1.00	1.08	1.20	1.30
	Ø12.5 ~ Ø16	~ 68μF	0.75	1.00	1.35	1.57	2.00
		100 ~ 680μF	0.80	1.00	1.23	1.34	1.50
		1000 ~ 6800μF	0.85	1.00	1.10	1.13	1.15

产品编码说明

CK系列	16V	220μF	± 20 %	编带	Φ8 X 10.5 L
CK	1C	221	M	CR	F10
系列名	额定电压	标称容量	容量误差	包装型式	尺寸代码

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

ROQANG:

KM1E471M1013 CK1C101M-CRE54 RVT2A6R8M0605 CK1H221M-CRG10 CS1H221M-CRG10
RVE1A471M0607 CK1C100M-CRC54 CK1H101M-CRF10 KM1H471M1020 RT1J220M0607
RVE1E101M0607 RVT1H100M0505 RVT1V101M0605 RVT1V471M1010 CK1A470M-CRC54
RVT1H4R7M0505 RVT1V101M0607 VT1C100M0405 VT1C471M0810 VT1V221M0810 CK1A102M-CRF10
CS1H331M-CRG10 KM1E221M0611 RVT1A102M0810 RVT1C221M0607 CS0J471M-CRE77
GR1C221M0607 RVE1A102M0810 RVE1E220M0505 RVT0J152M1010