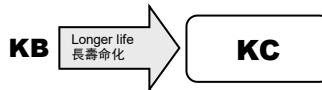


KC Series

WIDE TEMPERATURE

寬溫品

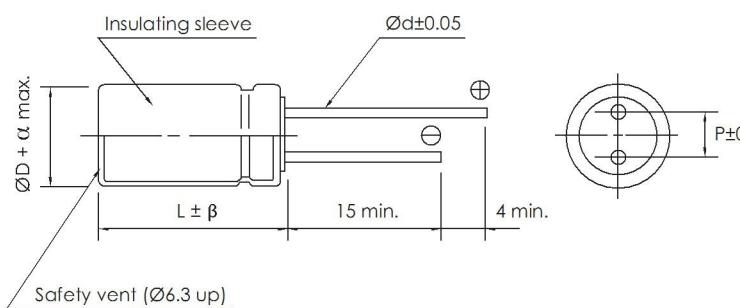
- Wide temperature range of -40~+105°C
適用於 -40~+105°C 的寬溫範圍
- Standard series for general purposes
標準品通用型
- Load life of 2000~3000 hours at 105°C
在 105°C 環境中負荷壽命 2000~3000 小時
- Comply with the RoHS directive
符合 RoHS 指令



SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性																			
Operation Temperature Range 使用溫度範圍	-40 ~ +105°C																			
Voltage Range 額定工作電壓範圍	6.3 ~ 100V																			
Capacitance Range 靜電容量範圍	0.47 ~ 15000μF																			
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C																			
Leakage Current 漏電流	Leakage current = 0.01CV or 3μA, whichever is greater (after 2 minutes application of rated voltage) 漏電流 = 0.01CV 或 3μA, 取較大值 (施加額定工作電壓 2分鐘後)					Leakage current = 0.02CV + 15μA (after 5 minutes application of rated voltage) 漏電流 = 0.02CV + 15μA (施加額定工作電壓 5 分鐘後)														
Dissipation Factor (tan δ) 損耗角正切	When nominal capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value with increase of every 1000μF. 當標稱靜電容量大於 1000μF, 其標稱靜電容量每增加 1000μF, 損耗角正切增加 0.02. Measurement frequency 測試頻率: 120Hz, Temperature 測試溫度: 20°C																			
	Rated Voltage (V) 額定工作電壓	6.3	10	16	25	35	50	63	100	160~250	350~450									
	tan δ (max.) 最大損耗角正切	0.24	0.20	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.20									
Stability at Low Temperature 低溫特性	Measurement frequency 測試頻率: 120Hz																			
	Rated Voltage (V) 額定工作電壓	6.3	10	16	25~100	160~350	400, 450													
	Impedance Ratio Z(-25°C) / Z(20°C)	4	3	2	2	3	8													
	阻抗比 Z(-40°C) / Z(20°C)	8	6	4	3	4	—													
Load Life 高溫負荷特性	After 3000 hours ($\phi 5 \sim \phi 8$ products are for 2000 hours) 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 3000 小時 ($\phi 5 \sim \phi 8$ 產品為 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 measured value 初始值的±20% 以內																		
	Dissipation Factor 損耗角正切	$\leq 200\%$ of initial specified value 不大於規範值的 200%																		
	Leakage Current 漏電流	\leq initial specified value 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 listed above. 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。																			
Marking 標識	Printed with white colour on black sleeve (PET) or printed with white colour on green sleeve (PVC). 黑色膠管白字印刷 (PET) 或綠色膠管白字印刷 (PVC)。																			

DRAWING (Unit: mm) 外形圖



ØD	5	6.3	8 (L≤11.5)	8 (L≥16)	10	13	16	18	22	25
P	2.0	2.5	3.5		5.0		7.5	10.0	12.5	
Ød	0.5			0.6			0.8			
β			1.5			2.0				
α				0.5				1.0		

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	0.47 ~ 47μF	0.75	1.00	1.35	1.55
	68 ~ 680μF	0.80	1.00	1.25	1.34
	1000 ~ 15000μF	0.85	1.00	1.10	1.13

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.

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KC Series

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

WV Code μF 代碼		6.3		10		16		25		35		50		63	
		0J		1A		1C		1E		1V		1H		1J	
0.47	R47											5 x 11	8	5 x 11	8
0.68	R68											5 x 11	9	5 x 11	9
1	010											5 x 11	11	5 x 11	13
2.2	2R2											5 x 11	20	5 x 11	15
3.3	3R3											5 x 11	30	5 x 11	19
4.7	4R7											5 x 11	33	5 x 11	22
6.8	6R8											5 x 11	42	5 x 11	34
10	100					5 x 11	50	5 x 11	38	5 x 11	41	5 x 11	50	5 x 11	50
22	220			5 x 11	50	5 x 11	54	5 x 11	57	5 x 11	61	5 x 11 (6.3x12)	78 (85)	6.3 x 12	86
33	330			5 x 11	60	5 x 11	64	5 x 11	69	5 x 11	75	6.3 x 12	95	6.3 x 12	100
47	470	5 x 11	62	5 x 11	71	5 x 11	80	5 x 11	106	5 x 11 (6.3x12)	106 (110)	6.3 x 12	125	6.3 x 12	130
68	680	5 x 11	80	5 x 11	83	5 x 11	85	5 x 11	114	6.3 x 12	121	8 x 11.5	144	8 x 11.5	128
100	101	5 x 11	95	5 x 11	100	5 x 11 (6.3x12)	120 (135)	5 x 11 (6.3x12)	120 (145)	6.3 x 12 (8x11.5)	150 (180)	8 x 11.5 (10x12)	188 (200)	10 x 12	295
220	221	5 x 11	150	5 x 11 (6.3x12)	155 (175)	6.3 x 12 (8x11.5)	190	6.3 x 12 (8x11.5)	190	8 x 11.5 (236)	270	10 x 12 (10x16)	345 (370)	10 x 16	390
330	331	6.3 x 12	170	6.3 x 12	200	8 x 11.5	270	8 x 11.5 (10x12)	310 (335)	10 x 12 (8x16)	395 (455)	10 x 16 (10x20)	420 (460)	10 x 20	510
470	471	6.3 x 12	230	6.3 x 12 (8x11.5)	260 (290)	8 x 11.5	310	8 x 11.5 (8x16)	325 (350) (380)	10 x 16 (10x20)	520 (550)				
680	681	8 x 11.5	314	8 x 11.5 (8x16)	345 (390)	8 x 16 (10x16)	480 (520)	10 x 16	520	10 x 16 (10x20)	550 (590)			16x25	800
1000	102	8 x 11.5	380	8 x 11.5 (8x16)	400 (425) (585)	8 x 20 (10x16)	580 (645) (700)	10 x 20	775			16 x 25	1080	16 x 25	930
2200	222	10 x 12 (10x16)	630 (690)	10 x 20	760					(16x25)	(1260)	16 x 35 (18x35)	1470 (1530)	16 x 31 (18x35)	1565 (2180)
3300	332	10 x 20	845					16 x 25	1440	16 x 31 (16x35)	1420 (1480)	18 x 35	1770		
4700	472					16 x 25	1320	16 x 31	1650	18 x 35	1900	22 x 40	2340		
6800	682	16 x 25	1480	16 x 31	1510	16 x 31	1930	18 x 35	2160						
10000	103	16 x 31	1920	16 x 35	2220	18 x 35	2350								
15000	153	18 x 31	2390												

WV Code μF 代碼		100		160		200		250		350		400		450	
		2A		2C		2D		2E		2V		2G		2W	
1	010	5 x 11	19	5 x 11	16	5 x 11	16	6.3 x 12	16	6.3 x 12	16	6.3 x 12 (8x11.5)	16 (20)	8 x 11.5	17
2.2	2R2	5 x 11	30	6.3 x 12	23	6.3 x 12	30	6.3 x 12	35	8 x 11.5	38	6.3 x 12 (8x11.5)	32 (39)	8 x 11.5	39
3.3	3R3	5 x 11	32	6.3 x 12	34	6.3 x 12	39	8 x 11.5	42	8 x 11.5	43	6.3 x 12 (8x11.5)	40 (45)	8 x 11.5	45
4.7	4R7	5 x 11	38	6.3 x 12	40	8 x 11.5	46	8 x 11.5	45	10 x 12	55	8 x 11.5 (10x12)	50 (55)	10 x 12	55
5.6	5R6	5 x 11	40	6.3 x 12	42	8 x 11.5	46	8 x 11.5	45	10 x 12	55	8 x 11.5 (10x12)	50 (57)	10 x 12	60
6.8	6R8	5 x 11	52	8 x 11.5	48	8 x 11.5	52	8 x 11.5	52	10 x 16	62	8 x 16 (10x16)	65 (80)	10 x 16	90
7	7R0	5 x 11	52	8 x 11.5	48	8 x 11.5	52	8 x 11.5 (10x12)	52 (57)	10 x 16	62	8 x 16 (10x16)	65 (80)	10 x 16	90
8.2	8R2	6.3x12	70	8 x 11.5 (10x12)	58 (60)	8 x 11.5 (10x12)	60 (68)	8 x 11.5 (10x12)	62 (90)	8 x 16 (10x16)	65 (90)	8 x 16 (10x16)	67 (90)	10 x 20	115
10	100	6.3x12	73	8 x 11.5 (10x12)	65 (60)	8 x 11.5 (10x12)	65 (70)	10 x 12 (10x16)	92 (116)	10 x 16	95	10 x 16 (10x20)	95 (105)	10 x 20	120
22	220	6.3 x 12	104	10 x 12	96	10 x 16	140	10 x 16 (10x20)	140 (145)						
33	330	8 x 11.5	150	10 x 20	155	10 x 20	170					(16x25)	(245)	16 x 20 (16x25)	207 (260)
47	470	10 x 12	190							16 x 25	285	16 x 25 (16x31)	295 (320)	16 x 25 (16x31)	305 (313)
68	680	10 x 16	239					16 x 25	365	16 x 31	370	16 x 31 (16x35)	350 (405)	16 x 35 (18x31)	435 (450)
100	101	10 x 20	320			16 x 25	385	16 x 31	485	18 x 35	485	18 x 31 (18x35)	420 (540)	18 x 35 (18x40)	520 (560)
220	221			16 x 31	660	16 x 35 (18x31)	695 (755)	18 x 35	760						
330	331			18 x 35	820	18 x 35	820							Case size 尺寸	Ripple current 紋波電流

• 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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