

WIDE TEMPERATURE

寬溫品

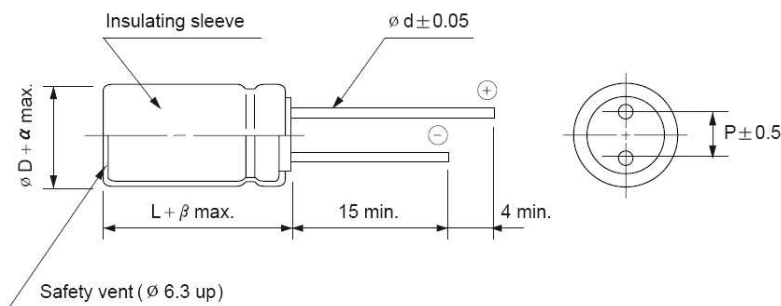
- Wide temperature range of -40 ~ +105°C
適用於 -40 ~ +105°C 的寬溫範圍
- Standard series for general purposes
標準品通用型
- Load life of 2000 hours at 105°C
在 105°C 環境中負荷壽命 2000 小時
- Comply with the RoHS directive
符合 RoHS 指令



SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性	
Operation Temperature Range 使用溫度範圍	-40 ~ +105°C	-25 ~ +105°C
Voltage Range 額定工作電壓範圍	6.3 ~ 100V	160 ~ 450V
Capacitance Range 靜電容量範圍	0.47 ~ 15000µF	0.47 ~ 330µF
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) Leakage current = 0.03CV or 4µA, whichever is greater (after 1 minute 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) 漏電流 = 0.03CV 或 4µA, 取較大值 (施加額定工作電壓 1 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 溫度: 20°C	
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 35 50 63 100 160-250 350-450
Load Life 高溫負荷特性	After 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 2000 小時後, 電容器的特性符合下表的要求。 (Ø5-Ø8 products are for 1000 hours) (Ø5-Ø8 產品為 1000 小時)	
	Capacitance Change 靜電容量變化率	Within ±20% of initial measured value 初始值的±20%以內
Shelf Life 高溫貯存特性	Dissipation Factor 損耗角正切	200% of initial specified value 不大於規範值的 200%
	Leakage Current 漏電流	initial specified value 不大於規範值
Marking 標示	Printed with white colour on black sleeve (PVC) or printed with white colour on purple blue sleeve (PET). 黑色膠管白字印刷 (PVC) 或藍紫色膠管白字印刷 (PET)。	

DRAWING (Unit: mm) 外形圖



ØD	5	6.3	8	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		1.0		
β	1.0		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	0.1 ~ 47µF	0.75	1.0	1.35	2.0
	68 ~ 680µF	0.80	1.0	1.25	1.5
	1000 ~ 15000µF	0.85	1.0	1.10	1.15

Note: All design and specifications are for reference only and is 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。

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

WV Code 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	14	5 x 11	15
3.3	3R3											5 x 11	17	5 x 11	19
4.7	4R7											5 x 11	20	5 x 11	22
6.8	6R8											5 x 11	25	5 x 11	34
10	100					5 x 11	50	5 x 11	38	5 x 11	41	5 x 11	46	5 x 11	50
22	220					5 x 11	54	5 x 11	57	5 x 11	61	5 x 11	68	6.3 x 11.5	82
33	330					5 x 11	64	5 x 11	69	5 x 11	75	6.3 x 11.5	90	6.3 x 11.5	85
47	470			5 x 11	71	5 x 11	80	5 x 11	106	6.3 x 11.5	110	6.3 x 11.5	125	6.3 x 11.5	90
68	680			5 x 11	83	5 x 11	85	5 x 11	114	6.3 x 11.5	121	8 x 11.5	144	8 x 11.5	128
100	101	5 x 11	95	5 x 11	100	5 x 11	120	6.3 x 11.5	145	6.3 x 11.5 (8 x 11.5)	165 (210)	8 x 11.5	180	10 x 12	295
220	221	5 x 11	150	6.3 x 11.5	165	6.3 x 11.5	175	8 x 11.5	185	8 x 11.5	250	10 x 12	345	10 x 20	390
330	331	6.3 x 11.5	170	6.3 x 11.5	180	8 x 11.5	195	8 x 11.5 (10 x 12)	245 (265)	10 x 12 (8 x 16)	395 (455)	10 x 15 (10 x 20)	420 (460)	13 x 21	500
470	471	6.3 x 11.5	205	8 x 11.5	275	8 x 11.5	305	10 x 12	330	10 x 16 (10 x 20)	520 (550)	10 x 20	560	13 x 25	700
680	681	8 x 11.5	314	8 x 11.5 (8 x 16)	345 (390)	8 x 16 (10 x 16)	480 (520)	10 x 16	520	10 x 20	590	13 x 25	720	13 x 25	780
1000	102	8 x 11.5	380	8 x 16 (10 x 12)	425 (585)	10 x 16	645	10 x 20 (13 x 21)	775 (845)	13 x 21 (13 x 25)	800 (930)	13 x 25 (16 x 25)	830 (960)	16 x 25	870
2200	222	10 x 16 (10 x 20)	630 (720)	13 x 21	715	13 x 21	760	13 x 25	920	16 x 25	1120	16 x 35	12300	18 x 35	1340
3300	332	10 x 20 (13 x 21)	845 (920)	13 x 25	1030	13 x 25	1080	16 x 25	1300	16 x 35	1410	18 x 35	1560	22 x 40	1712
4700	472	13 x 25	1240	13 x 25	12800	16 x 25	1320	16 x 31	1380	18 x 35	1800	22 x 40	1925	25 x 40	1940
6800	682	16 x 25	1370	16 x 31	1510	16 x 31	1560	18 x 35	1680	22 x 40	2016				
10000	103	16 x 31	1620	16 x 35	1820	18 x 35	1860								
15000	153	18 x 31	2030												

WV Code 代碼	100		160		200		250		350		400		450		
	2A		2C		2D		2E		2V		2G		2W		
0.47	R47	5 x 11	14	5 x 11	12	5 x 11	12	5 x 11	12	6.3 x 11.5	12	6.3 x 11.5	12	6.3 x 11.5	12
0.68	R68	5 x 11	15	5 x 11	13	5 x 11	13	5 x 11	13	6.3 x 11.5	13	6.3 x 11.5	13	8 x 11.5	13
1	010	5 x 11	19	5 x 11	16	5 x 11	16	6.3 x 11.5	16	6.3 x 11.5	16	6.3 x 11.5	16	8 x 11.5	17
2.2	2R2	5 x 11	25	6.3 x 11.5	23	6.3 x 11.5	23	6.3 x 11.5	24	8 x 11.5	24	8 x 11.5	26	10 x 12	31
3.3	3R3	5 x 11	32	6.3 x 11.5	34	6.3 x 11.5	34	8 x 11.5	34	8 x 11.5	34	10 x 12	39	10 x 12	42
4.7	4R7	5 x 11	38	6.3 x 11.5	40	8 x 11.5	40	8 x 11.5	40	10 x 12	47	10 x 12	47	10 x 16	50
6.8	6R8	5 x 11	52	8 x 11.5	48	8 x 11.5	52	10 x 12	57	10 x 16	62	10 x 16	62	10 x 20	66
10	100	5 x 11	66	10 x 12	60	10 x 12	60	10 x 12	70	10 x 16	75	10 x 20	82	13 x 21	88
22	220	6.3 x 11.5	104	10 x 16	96	10 x 16	105	10 x 20	121	13 x 21	143	13 x 25	155	13 x 25	167
33	330	8 x 11.5	150	10 x 20	140	10 x 20	140	13 x 21	175	13 x 25	190	16 x 25	211	16 x 25	234
47	470	10 x 12	190	13 x 21	160	13 x 21	170	13 x 25	227	16 x 25	252	16 x 31	276	16 x 31	313
68	680	10 x 16	239	13 x 21	220	13 x 25	227	16 x 25	303	16 x 31	332	16 x 35	373	16 x 35	422
100	101	10 x 20	320	13 x 25	255	16 x 25	360	16 x 31	402	18 x 35	425	18 x 35	428	18 x 40	484
220	221	13 x 25	450	16 x 31	493	16 x 35	520	18 x 35	554						
330	331	13 x 25	625	18 x 35	647	18 x 40	671								
470	471	16 x 25	780	18 x 40	820										
680	681	16 x 35	1021												
1000	102	18 x 40	1344											Case size 尺寸	Ripple current 紋波電流

•Case size $\varnothing D \times L$ (mm), ripple current (mA rms) at 105°C 120Hz •尺寸 $\varnothing D \times L$ (mm), 紋波電流(mA rms)於 105°C 120Hz

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