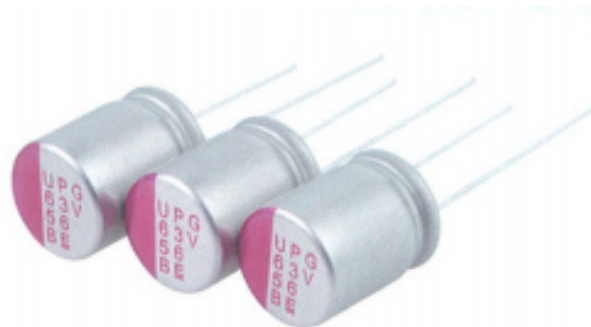


# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

## UPG series

### FEATURES 特性

- Ultra low E.S.R  
低阻抗
- Enabled high ripple current  
耐高紋波
- Guaranteed at 105°C 2000 hours.  
保證壽命 105°C 2000 小時



### SPECIFICATIONS

Item 項目	Performance Characteristics 特性		
Operating Temperature Range 工作溫度範圍	-55°C ~ +105°C		
Rated Voltage Range 額定電壓範圍	50~200 W.V		
Capacitance Range 靜電容量範圍	1~220uF		
Capacitance Tolerance 靜電容量誤差	±20% (20°C, 120Hz)		
Leakage Current 洩漏電流	$I \leq 0.2CV$ or 280(uA) whichever is greater. (After 2 minutes) $\leq 0.2CV$ or 280 $\mu A$ 取較大值. (2 分鐘後) $I$ =Leakage Current( $\mu A$ ) $C$ =Nominal Capacitance( $\mu F$ ) $V$ =Rated Voltage(V) $I$ =洩漏電流( $\mu A$ ) , $C$ =額定容量( $\mu F$ ) , $V$ =額定電壓(V)		
Dissipation Factor ( $\tan \delta$ ) 散逸因素 (損失角正切值)	Rated Voltage 額定電壓 (V dc)	50~200	MAX (20°C 120Hz)
	Tan $\delta$ 損失角正切值	0.12	
Temperature Characteristics Impedance Ratio 溫度特性 阻抗變化率	$Z(-55^\circ C)/Z(+20^\circ C)$	$\leq 1.25$	100KHZ
	$Z(+105^\circ C)/Z(+20^\circ C)$	$\leq 1.25$	

# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

※1. Endurance 壽命	The following specifications shall be satisfied when the capacitors are restored 20 °C after the rated voltage is applied for 2,000 hours at 105°C 電容器在 105°C 下印加額定電壓 2000 小時, 放置在 20°C 的環境下, 電容需符合以下規格值。	
	Capacitance Change 容量變化率	Within ±20% of the initial value. 初始值±20%以內
	Dissipation Factor 散逸因素	Not more than 150% of the specified value 不超出規格值的 1.5 倍
	Leakage Current 洩漏電流	Not more than the specified value 不超出規格值
	E.S.R 阻抗	Not more than 150% of the specified value 不超出規格值的 1.5 倍
Damp heat 耐濕性	60°C, 90 to 95%, R.H, 1000hrs	
	Capacitance Change 容量變化率	Within ±20% of the initial value. 初始值±20%以內
	Dissipation Factor 散逸因素	Not more than 150% of the specified value 不超出規格值的 1.5 倍
	Leakage Current 洩漏電流	Not more than the specified value 不超出規格值
	E.S.R 阻抗	Not more than 150% of the specified value 不超出規格值的 1.5 倍
Surge Voltage(V) 湧浪電壓(V)	At normal temperature, charge at surge voltage for 30sec and discharge via a 1kΩ protective resistor for 330sec.Repeat for 1000 cycles. 常溫下, 印加湧浪電壓充電 30 秒, 通過 1 kΩ 的保護電阻放電 330 秒, 循環 1000 次。	ΔC/C: Within ±20% of the initial measured value. 初始值±20%以內
		tanδ: ≤ 150% of initial specified value 不超出規格值 1.5 倍
		ESR: ≤ 150% of initial specified value 不超出規格值 1.5 倍
		LC: ≤ initial specified value 不超出規格值

※1. In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C

1. 如測試數據時遇到問題, 請在 105°C 下印加額定電壓 120 分鐘後再測試。

## MULTIPLIER FOR RIPPLE CURRENT

### Frequency coefficient for ripple current

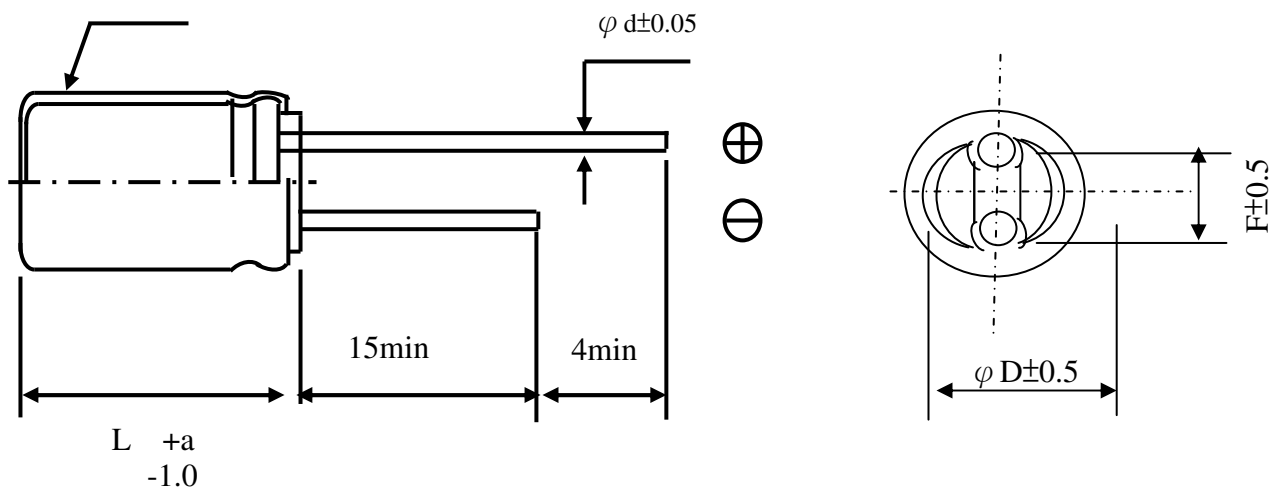
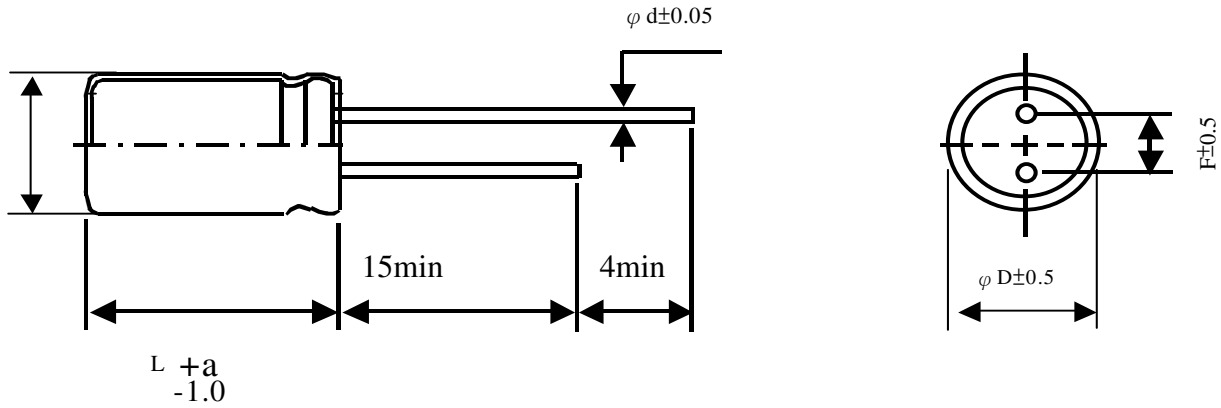
紋波電流頻率系數

Frequency (HZ) 頻率	120 ≤ f < 1K	1K ≤ f < 10K	10K ≤ f < 100K	100K ≤ f ≤ 500K
Coefficient 系數	0.05	0.30	0.70	1.00

# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS ]

## UPG series

### ■ DIMENSIONS 尺寸(mm)



$\varphi \times L$	6.3x8	8x8	8x11.5	10x12.5
$F \pm 0.5$	2.5	3.5	3.5	5.0
$\varphi d$	0.6	0.6	0.6	0.6
a	$L < 11; a = 1.0; L \geq 11; a = 1.5$			

# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

## STANDARD SIZE

Case Size  $\phi$  D x L (mm)

Rated Voltage(V)	Cap(uF)	Case size	ESR(m $\Omega$ )(max) 100KHz to 300KHz at 20 $^{\circ}$ C	Rated Ripple Current 100KHz (mA rms at 105 $^{\circ}$ C)	Tangent of Loss Angle (% max)	Leakage Current (uA)(max) after 2 minutes
50	10	6.3x6	200	547	12	280
50	22	6.3x7	200	1200	12	280
50	22	8x8	45	1300	12	280
50	33	6.3x8	200	1200	12	330
50	33	8x8	45	1300	12	330
50	47	8x11.5	42	1500	12	470
50	56	8x11.5	47	1800	12	560
50	56	10x12.5	38	2000	12	560
50	68	10x12.5	35	2100	12	680
50	100	10x12.5	35	2100	12	1000
50	120	10x12.5	35	2100	12	1200
50	220	10x16	35	2520	12	2200
63	10	6.3x11	90	850	12	280
63	22	8x6	100	1000	12	280
63	22	8x8	65	1100	12	280
63	33	8x8	65	1100	12	416
63	47	10x12.5	60	1300	12	592
63	56	10x12.5	55	1500	12	706
63	100	10x12.5	55	1800	12	1260
63	120	10x12.5	55	2160	12	1512
100	6.8	8x11.5	45	1600	12	280
100	10	6.3x11	90	1760	12	280
100	10	8x11.5	42	1800	12	280
100	18	10x12.5	38	2200	12	300
100	22	10x12.5	38	2650	12	440
100	33	8x16	70	1500	12	660
100	33	10x12.5	65	1550	12	660
100	47	10x16	60	1850	12	940
200	1	6.3x8	2000	150	12	280
200	3.3	8x8	500	300	12	280
200	4.7	8x11.5	400	350	12	280
200	6.8	10x12.5	300	500	12	280
200	8.2	10x12.5	300	595	12	328