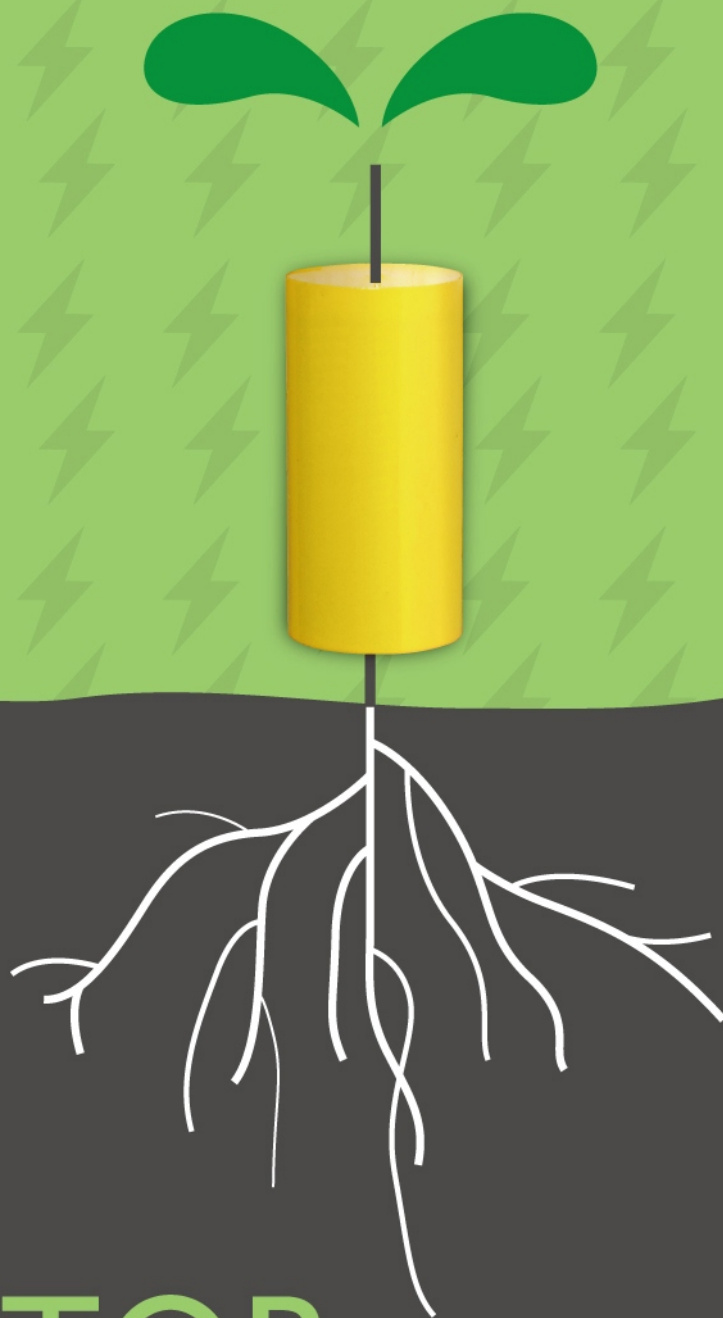




LUNG CHEN CAPACITOR

瓏晟興業股份有限公司



COMPANY PROFILE 公司簡介

Lungchen Capacitor Company was founded in 1989, which is a reputable experienced company in manufacturing extensive selection of metallized film capacitors for fans, lights, pumps, air conditioners, ventilators and other appliances.

With more than 20 years experience of producing capacitor in Taiwan, we also have Dong Guan branch factory set up in Guang Dong, China, in demand of expanding our production lines to satisfy the needs of domestic and international markets.

We contribute all our effort to apply state-of-the-art machinery, to meticulously select from and check on raw material supplies, and to strictly conduct smooth manufacture workflow. In the light of offering the best of service, Lungchen also has received several certificates, including UL, CSA and VDE. Our core mission is to provide stable and reliable zero-defective components to meet your specifications.

Customer Satisfaction is our top priority. With the principles of faith, patience and efficiency, we continuously strive to do the best in the punctual delivery, high quality products and on-going R&D development. For the global market potential, we are vigorously seeking the openings to work with partners worldwide and extend a warm welcome to our partners for future long term reciprocal relationship.

Should you be interested in any of the items enclosed herewith or more information, please feel free to contact us.

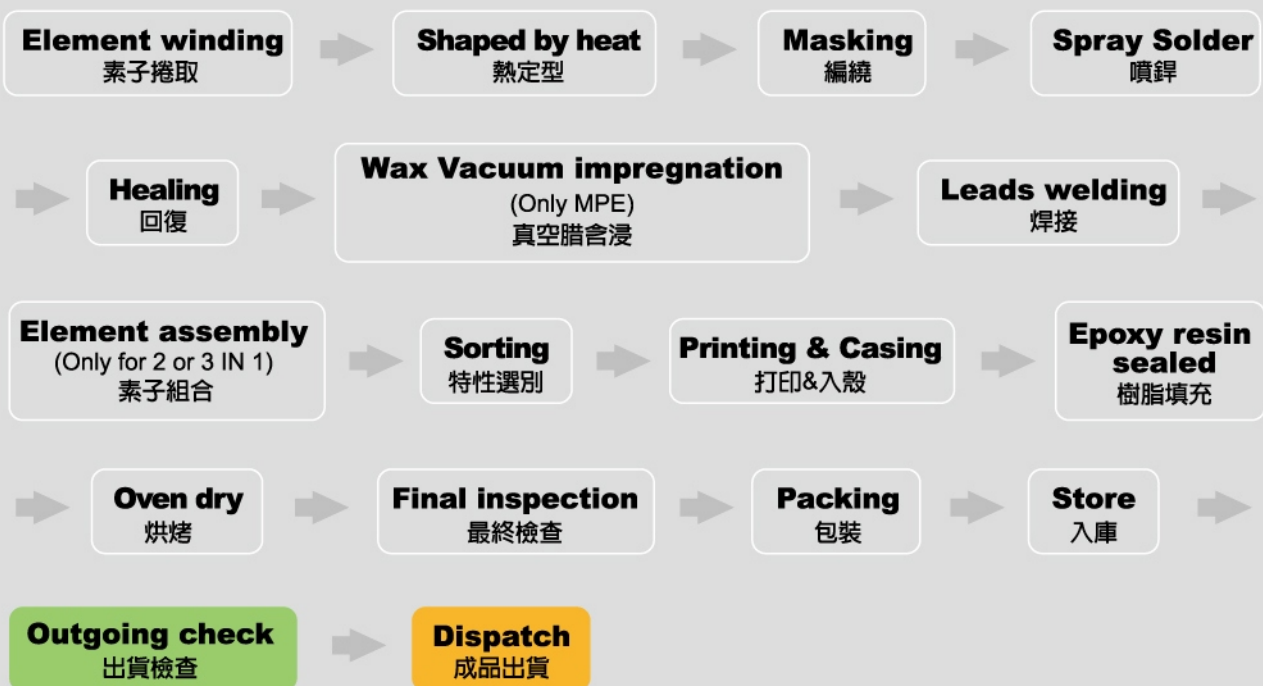
瓏晟興業股份有限公司位於台灣台中市后里區，緊鄰中科后里園區。於1989年創立至今已二十餘年，致力於各式金屬化塑膠膜電容器之生產製造。本司所生產的電容器適用範圍涵蓋了家電以及工業機器設備，舉凡：吊扇，立扇，冷氣機，冰箱，洗衣機，抽/排風機，泵浦，電動工具，日光燈，省電裝置。2003年為因應市場形勢的發展與低毛利時代的來臨，公司亦擴大生產線，於中國大陸廣東省東莞市設立分廠，使得產品銷售網更為廣泛。

我司以嚴謹的態度選擇原物料，採用先進之生產設備，加上累積二十餘年之製程與檢驗技術，生產出品質穩定，可靠度高的電容器、並通過美洲UL/CSA零件類安全結構認證以及歐洲VDE運轉電容認證。

以客為尊，是我司一直堅持的原則。我們秉持著教學相長的精神，把滿足客戶端的需求作為設計流程的起點，開發出多樣化產品、並本著精益求精的態度，不斷提升產品的品質，加快交貨速度，我們期待與您共創未來。

Box Type

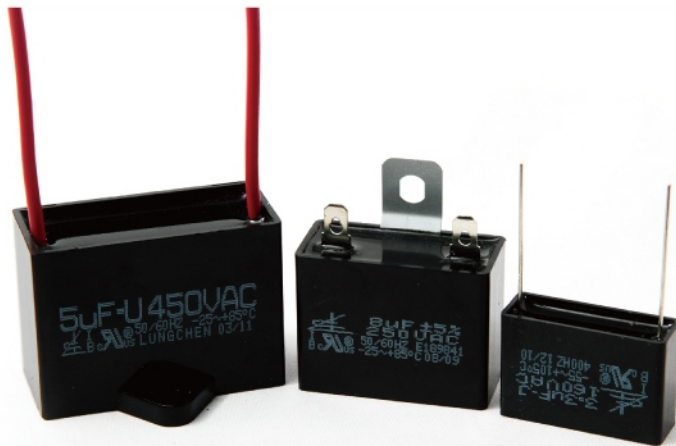
Flow Chart 製造流程圖



Tape Wrapped Type

Flow Chart 製造流程圖





CONSTRUCTION

- **Dielectric** : Metallized Polyester or Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Plastic case and epoxy resin filled

BO type Rectangular Plastic Case

BL type With mounting plates in case

BT type With mounting metal plates on top of case

- **Lead style** :

TC Tinned copper wire

PC PVC insulation wire

ST Soldering terminals

FT Fast-on terminals

ELECTRICAL CHARACTERISTICS

- **Rated Capacitance (Cr)** :

0.1 μ F~40 μ F

- **Rated Voltage (RV)** :

125VAC~ 900VAC (for AC application)

250VDC~1800VDC (for DC application)

- **Capacitance tolerance (at 1KHZ)** :

$\pm 5\%$ (J), $\pm 10\%$ (K), $^{+10}_{-5}\%$ (U)

Other tolerance upon request

- **Operating temperature range** :

Min. temperatures : -40°C, -25°C

Max. temperatures : +70°C, +85°C, +105°C

- **Withstand voltage (at 25 $\pm$ 5°C)** :

A Between terminals :

1.75 $\times$ RV for 1~10Sec.

No flashover or permanent breakdown shall occur, but self-healing are allowed.

B Between terminals and case :

2RV+1KV(2000V Min.) for 1~60Sec.

During this test, no dielectric breakdown or flashover shall occur.

- **Insulation Resistance (R_{ins})** :

Measured between terminals at 25 $\pm$ 5°C,
after 1 minute of electrification at 100VDC

$R_{ins} \geq 1000M\Omega \cdot \mu F$ (for AC application)

$R_{ins} \geq 10 \times 10^3 M\Omega \cdot \mu F$ (for DC application)

Or $\tau \geq 10000s$ (time constant $\tau = Cr \times R_{ins}$)

- **Dissipation Factor (DF)** :

$\tan \delta$, measured at 25 $\pm$ 5°C, 1KHZ

MEK 0.1 μ F $\leq$ Cr $\leq$ 1 μ F : 0.8%Max.

Cr>1 μ F : 1.0%Max.

MPK 0.1 μ F $\leq$ Cr $\leq$ 1 μ F : 0.1%Max.

Cr>1 μ F : 0.5%Max.

- **Endurance Test** :

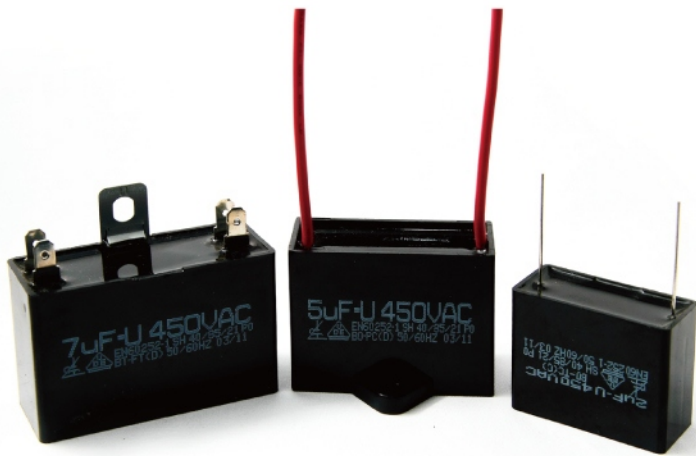
Test conditions Temperature : The max permissible capacitor operating temp
Voltage applied : 1.25RV continuous

Performance During this testing, no permanent breakdown, interruption or flashover shall occur.
Capacitance change($\Delta C/C$) : $\leq \pm 3\%$

- **Damp-heat Test** :

Test conditions Temperature : 40 $\pm$ 2°C
Relative humidity : 90~95%
Test duration : 1000 $\pm$ 24h

Performance Capacitance change($\Delta C/C$) : $\leq \pm 0.5\%$



EN60252-1
VDE0560-8



CONSTRUCTION

- **Dielectric** : Metallized Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Plastic case and epoxy resin filled
 - BO type Rectangular Plastic Case
 - BL type With mounting plates in case
 - BT type With mounting metal plates on top of case
- **Lead style** :
 - TC Tinned copper wire
 - PC PVC insulation wire
 - ST Soldering terminals
 - FT Fast-on terminals

ELECTRICAL CHARACTERISTICS

- **Approval specification** :
DIN EN 60252-1 VDE 0560-8 for motor application.
CERTIFICATE No. 40020020
- **Rated Capacitance (Cr)** :
0.5μ~8.0μF
- **Rated Voltage (RV)** :
400VAC~450VAC
- **Capacitance tolerance (at 1KHZ)** :
±5%(J), ±10%(K), +10%/-5%(U)
- **Class of safety protection** :
P0 (No specific failure protection)
- **Operating temperature range** :
Min. temperature : -40°C
Max. temperature : +85°C
- **Damp heat severity** :
The min. and max. permissible capacitor operating temperature for 21days
- **Withstand voltage (at 25±5°C)** :
 - A Between terminals :
2.0×RV for 2~60Sec.
No flashover or permanent breakdown shall occur, but self-healing are allowed.
 - B Between terminals and case :
2RV+1KV(2000V Min.) for 2~60Sec.
During this test, no dielectric breakdown or flashover shall occur.
- **Insulation Resistance (R_{ins})** :
Measured between terminals at 25±5°C, after 1 minute of electrification at 100VDC
R_{ins} ≥ 10³MΩ.μF or
τ ≥ 1000s (time constant τ = Cr×R_{ins})
- **Dissipation Factor (DF)** :
tan δ 0.5%Max., measured at 25±5°C, 1KHZ
- **Endurance Test** :
 - Test conditions Temperature : +85°C
Voltage applied : 1.25RV continuous
 - Performance During testing, no permanent breakdown, interruption or flashover shall occur.
Capacitance change(ΔC/C) : ≤±3%
 - Life expectancy Class C=3,000h
Class D=1,000h
- **Damp-heat Test** :
 - Test conditions Temperature : 40±2°C
Relative humidity : 90~95%
Test duration : 1000±24h
 - Performance Capacitance change(ΔC/C) : ≤±0.5%

DIAGRAM OF DIMENSIONS (Unit=mm)

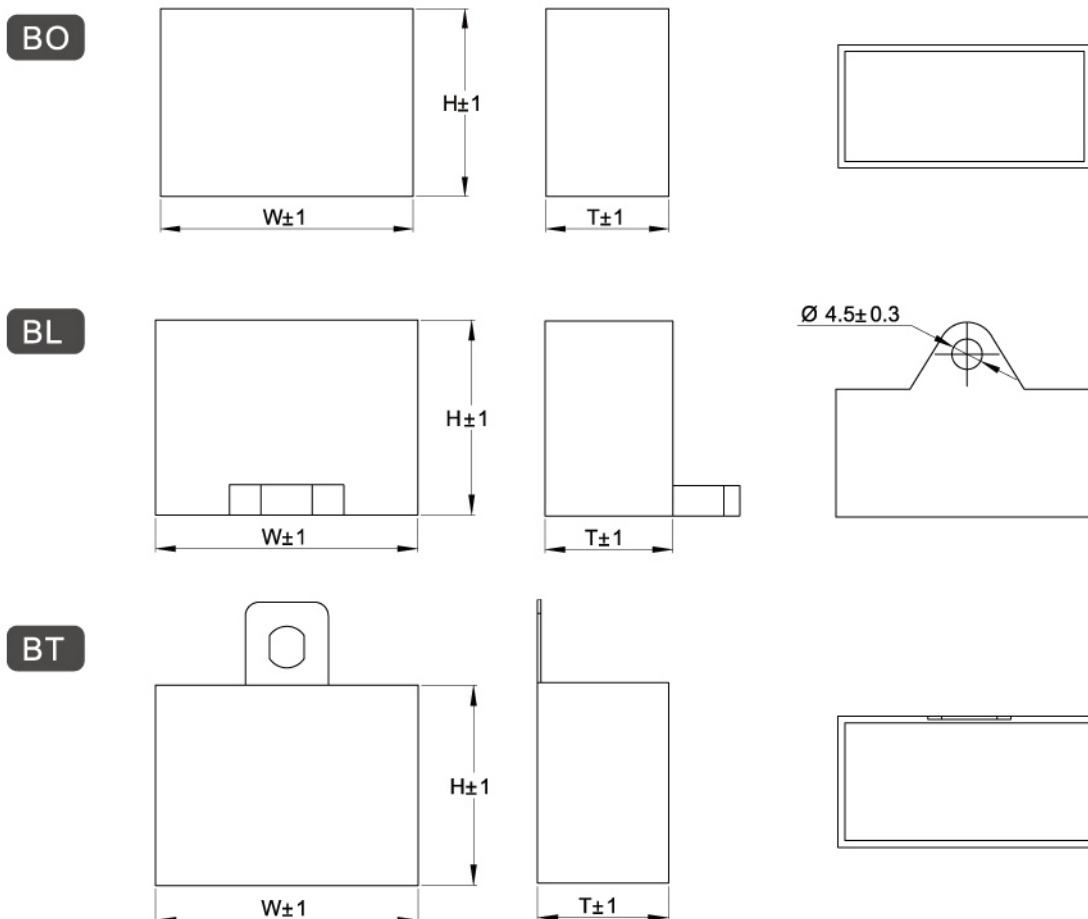
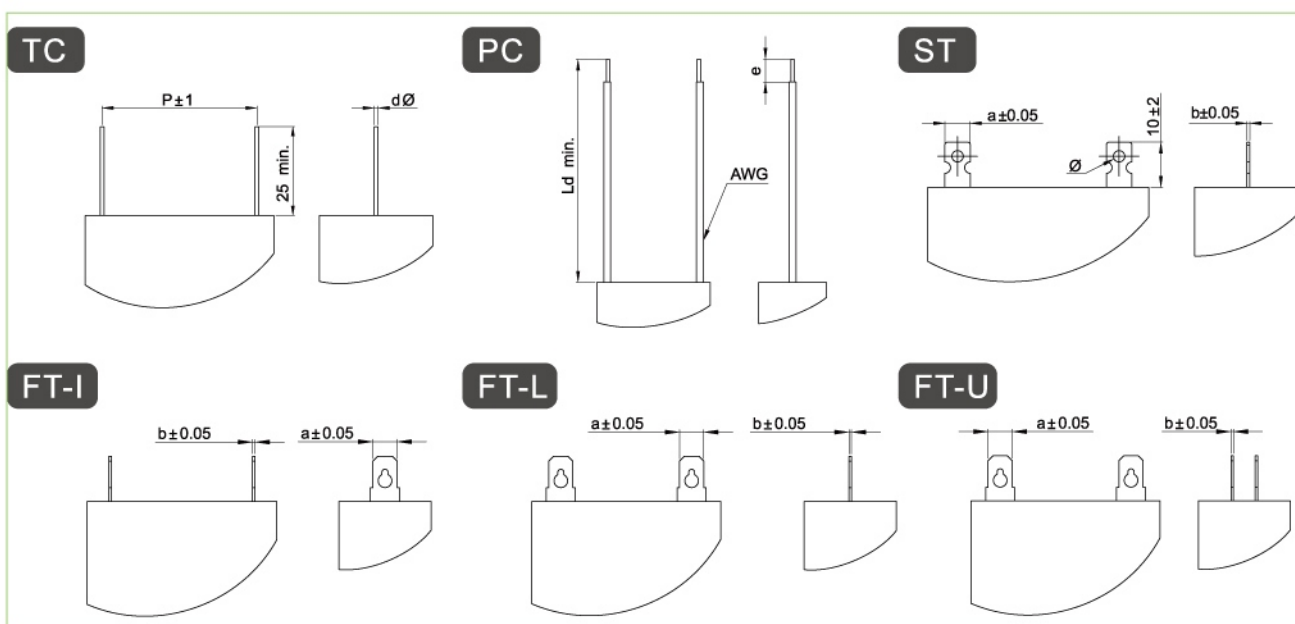
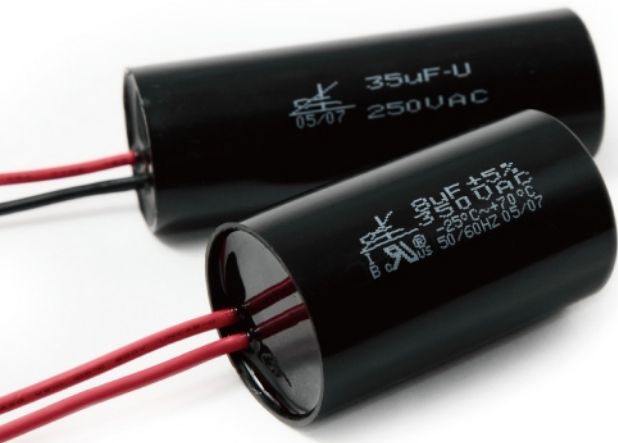


DIAGRAM OF TERMINAL STYLES (Unit=mm)



Terminal dimensions, please refer to page 14.



GENERAL TECHNICAL DATA

- **Dielectric** : Metallized Polyester or Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Round plastic case and epoxy resin filled
Flame retardant execution (UL class 94 V0)
- **Leads** : UL 1015 AWG#16~22 PVC insulation wire
- **Marking** : Manufacturer's logo, capacitance, tolerance, rated voltage, date code, approvals, series, operating temperature, rated frequency.

ELECTRICAL CHARACTERISTICS

- **Rated Capacitance (Cr)** :
 $1\mu\sim 60\mu\text{F}$
- **Rated Voltage (RV)** :
 $150\text{VAC}\sim 500\text{VAC}$ (at 50/60HZ)
- **Capacitance tolerance (at 1KHZ)** :
 $\pm 5\%$ (J), $\pm 10\%$ (K), $+10\%$ (U)
Other tolerance upon request
- **Operating temperature range** :
Min. temperatures : -40°C , -25°C
Max. temperatures : $+70^{\circ}\text{C}$, $+85^{\circ}\text{C}$
- **Withstand voltage (at $25\pm 5^{\circ}\text{C}$)** :
 - A Between terminals : $1.75\times\text{RV}$ for 1~10Sec.
No flashover or permanent breakdown shall occur, but self-healing are allowed.
 - B Between terminals and case :
 $2\text{RV}+1\text{KV}$ (2000V Min.) for 1~60Sec.
During this test, no dielectric breakdown or flashover shall occur.
- **Insulation Resistance (R_{ins})** :
Measured between terminals at $25\pm 5^{\circ}\text{C}$,
after 1 minute of electrification at 100VDC
 $R_{\text{ins}} \geq 10^3\text{M}\Omega\cdot\mu\text{F}$ or
 $\tau \geq 1000\text{s}$ (time constant $\tau = \text{Cr}\times R_{\text{ins}}$)

- **Dissipation Factor (DF)** :

$\tan \delta$, measured at $25\pm 5^{\circ}\text{C}$, 1KHZ

MER $0.1\mu\text{F} \leq \text{Cr} \leq 1\mu\text{F}$: 0.8%Max.
 $\text{Cr} > 1\mu\text{F}$: 1.0 % Max.

MPR $0.1\mu\text{F} \leq \text{Cr} \leq 1\mu\text{F}$: 0.1%Max.
 $\text{Cr} > 1\mu\text{F}$: 0.5%Max.

- **Endurance Test** :

Test conditions Temperature : The max permissible capacitor operating temp
Voltage applied : 1.25RV continuous

Performance During this testing, no permanent breakdown, interruption or flashover shall occur.
Capacitance change($\Delta\text{C}/\text{C}$) : $\leq \pm 3\%$

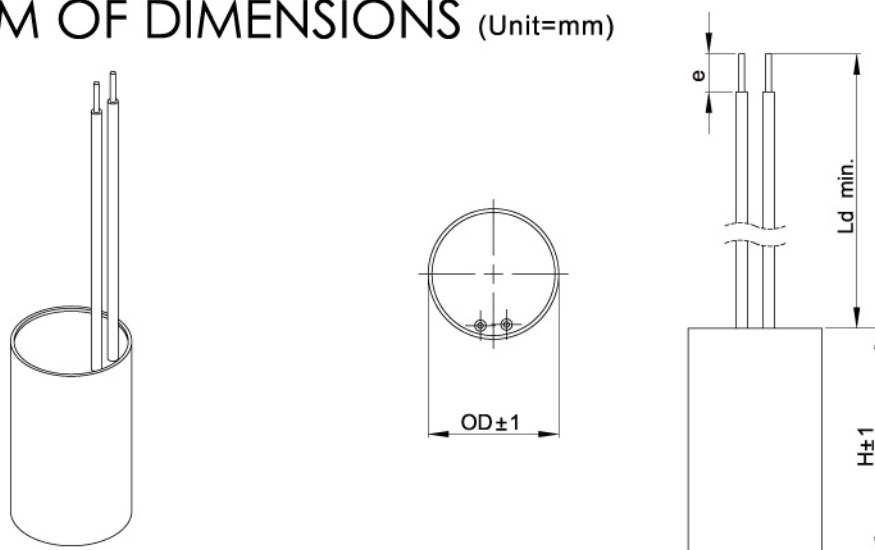
- **Damp-heat Test** :

Test conditions Temperature : $40\pm 2^{\circ}\text{C}$
Relative humidity : 90~95%
Test duration : $1000\pm 24\text{h}$

Performance Capacitance change($\Delta\text{C}/\text{C}$) : $\leq \pm 0.5\%$

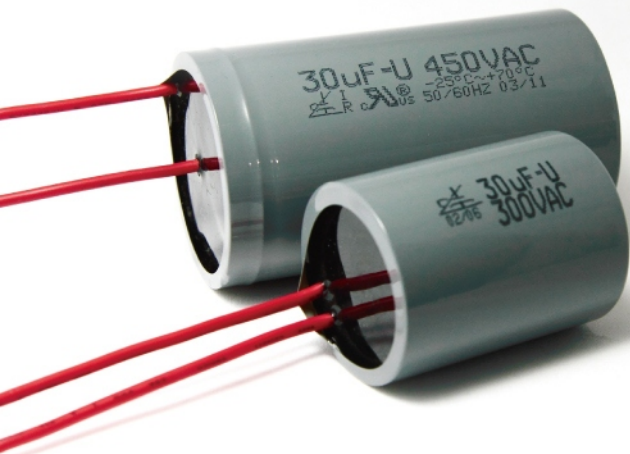
METALLIZED PLASTIC FILM with ROUND PLASTIC CASE

DIAGRAM OF DIMENSIONS (Unit=mm)



DIMENSION OF STANDARD PRODUCTS (Unit=mm)

R.V. SIZE (μF)	250VAC		300VAC		350VAC		400VAC		450VAC		500VAC	
	OD	H	OD	H	OD	H	OD	H	OD	H	OD	H
2					25	40	25	40	25	40	30	40
3					25	40	25	40	30	40	30	52
4					25	40	30	40	30	52	30	52
5	25	40	25	40	30	40	30	52	30	52	35	52
6	25	40	30	40	30	40	30	52	35	52	35	60
8	25	40	30	40	30	52	35	52	35	60	40	60
10	30	40	30	52	35	52	35	60	35	60	40	60
12	30	40	30	52	35	52	35	60	40	60	45	60
13	30	52	35	52	35	52	40	60	45	60	45	60
14	30	52	30	60	35	60	40	60	45	60		
			35	52								
15	30	52	30	60	35	60	40	60	45	60		
16	30	52	30	60	35	60	40	60	45	60		
18	30	52	35	60	40	60	45	60				
20	35	52	30	85	40	60	45	60				
			35	60								
25	30	60	40	60	45	60						
	35	52										
30	30	85	40	60	45	60						
	35	60										
35	30	85	45	60								
	35	60										
40	30	85	45	60								
	40	60										
45	40	60										
50	45	60										
60	45	60										



GENERAL TECHNICAL DATA

- **Dielectric** : Metallized Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Round Aluminum can with heat-shrinkable tubing cover, and UL 94V-0 epoxy resin filled.
- **Leads** : UL 1015 PVC insulation wire
- **Marking** : Manufacturer's logo, rated capacitance, tolerance, rated voltage, approvals, operating temperature, rated frequency, date code, series.

ELECTRICAL CHARACTERISTICS

- **Rated Capacitance (Cr)** :
Capacitance values up to 120 μ F
- **Rated Voltage (RV)** :
250VAC~500VAC (at 50/60HZ)
- **Capacitance tolerance (at 1KHZ)** :
 $\pm 5\%$ (J), $\pm 10\%$ (K), $^{+10}_{-5}\%$ (U)
Other tolerance upon request

- **Operating temperature range** :
Min. temperatures : -40°C, -25°C
Max. temperatures : +70°C, +85°C, +105°C

- **Withstand voltage (at 25 $\pm$ 5°C)** :

A Between terminals : 1.75 $\times$ RV for 1~10Sec.
No flashover or permanent breakdown shall occur, but self-healing are allowed.

B Between terminals and case :
2RV+1KV(2000V Min.) for 1~60Sec.
During this test, no dielectric breakdown or flashover shall occur.

- **Insulation Resistance (R_{ins})** :
Measured between terminals at 25 $\pm$ 5°C
after 1 minute of electrification at 100VDC
R_{ins} $\geq$ 10³M Ω · μ F or
 $\tau \geq 1000s$ (time constant $\tau = Cr \times R_{ins}$)

- **Dissipation Factor (DF)** :

$\tan \delta$: 0.5%Max.

Measured at 25 $\pm$ 5°C, 1KHZ

- **Endurance Test** :

Test conditions Temperature : The max permissible capacitor operating temp
Voltage applied : 1.25RV continuous

Performance During testing, no permanent breakdown, interruption or flashover shall occur.
Capacitance change($\Delta C/C$) : $\leq \pm 3\%$

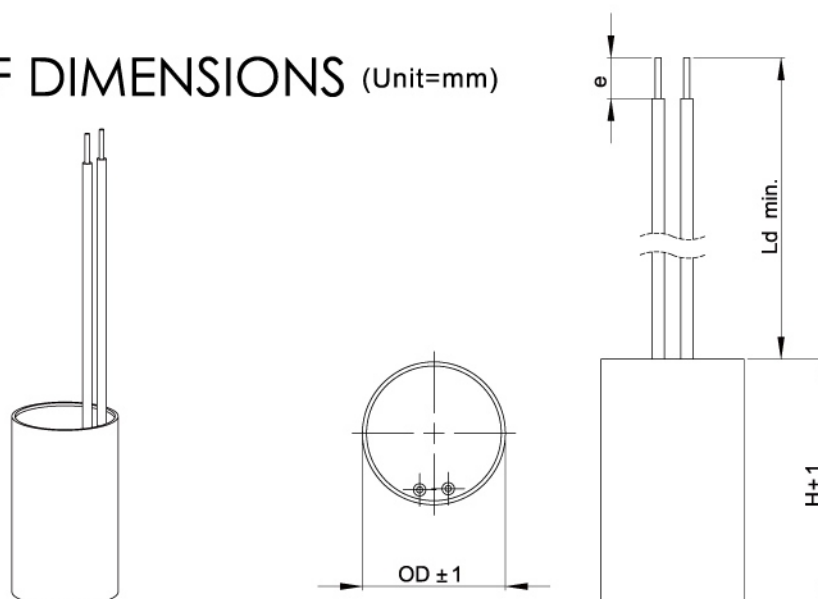
- **Damp-heat Test** :

Test conditions Temperature : 40 $\pm$ 2°C
Relative humidity : 90~95%
Test duration : 1000 $\pm$ 24h

Performance Capacitance change($\Delta C/C$) : $\leq \pm 0.5\%$

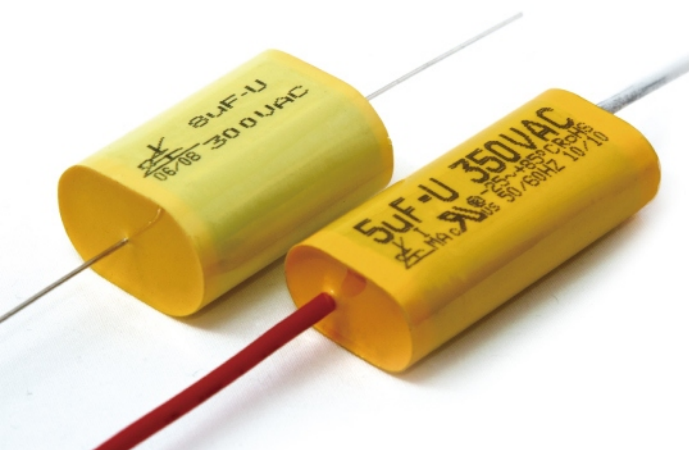
METALLIZED POLYPROPYLENE FILM with ROUND ALUMINUM CAN

DIAGRAM OF DIMENSIONS (Unit=mm)



DIMENSION OF STANDARD PRODUCTS (Unit=mm)

R.V. SIZE (μF)	250VAC		300VAC		350VAC		400VAC		450VAC		500VAC	
	OD	H	OD	H	OD	H	OD	H	OD	H	OD	H
10							35	63	35	63	40	63
12							35	63	40	63	45	63
14							40	63	45	63	45	63
15					35	63	40	63	45	63	45	73
16					35	63	40	63	45	63	45	73
18			30	75	35	63	35	88	45	73	45	88
20			30	85	35	85	40	73	40	88	40	115
			35	63	40	63	45	63	45	73	45	88
25	35	63	30	85	35	88	40	88	40	115	45	115
			35	63	40	63	45	73	45	88	51	88
30	30	85	35	85	45	63	45	88	51	88	45	115
	35	63	40	63								
35	30	85	35	85	40	88	45	88	51	88	51	115
	35	63	40	63								
40	35	73	40	73	40	115	45	115	51	115	56	115
	40	63	45	63	45	88	51	88				
45	35	85	40	88	40	115	45	115	51	115	56	115
	40	63	45	73	45	88	51	88				
50	40	73	40	88	45	115	51	115	56	115		
	45	63	45	73	51	88						
60	40	88	45	88	51	88	51	115				
70	40	88	40	115	51	115	56	115				
	45	73	45	88								
80	40	88	45	115	51	115	56	115				
90	45	88	45	115	56	115						
100	45	88	51	115	56	115						
110	45	88	51	115								
120	51	88	56	115								



GENERAL TECHNICAL DATA

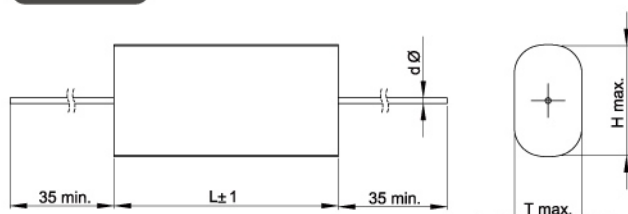
- **Dielectric** : Metallized Polyester or Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Polyester wrapping and epoxy resin filled
- **Lead style** :
 - TC Tinned copper wire
 - PC PVC insulation wire
- **Marking** : Manufacturer's logo, capacitance, tolerance, rated voltage, date code, approvals, series, operating temperature, rated frequency.

ELECTRICAL CHARACTERISTICS

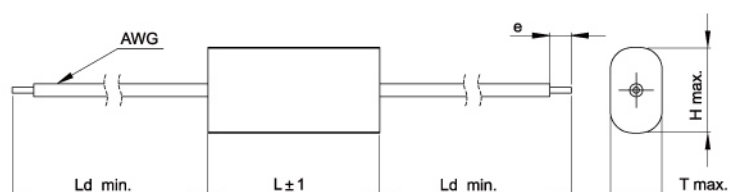
- **Rated Capacitance (Cr)** :
0.1 μ F~100 μ F
- **Rated Voltage (RV)** :
125VAC~600VAC (for AC application)
250VDC~1000VDC (for DC application)
- **Capacitance tolerance (at 1KHZ)** :
 $\pm 5\%$ (J), $\pm 10\%$ (K), $^{+10}_{-5}\%$ (U)
Other tolerances upon request
- **Operating temperature range** :
Min. temperatures : -40°C, -25°C
Max. temperatures : +70°C, +85°C, +105°C
- **Withstand voltage (at 25 $\pm$ 5°C)** :
 - A Between terminals : 1.75 $\times$ RV for 1~10Sec.
During this test, self-healing are allowed.
 - B Between terminals and coverage :
2RV+1KV(2000V Min.) for 1~60Sec.
- **Insulation Resistance (R_{ins})** :
Measured at 100VDC, 60 Sec, 25 $\pm$ 5°C
R_{ins} $\geq$ 1000M Ω · μ F (for AC application)
R_{ins} $\geq$ 10 $\times$ 10³M Ω · μ F (for DC application)
- **Dissipation Factor (DF)** :
tan δ , Measured at 25 $\pm$ 5°C, 1KHZ
 - MEA tan δ =1.0%Max
 - MPA tan δ =0.5%Max

DIAGRAM OF DIMENSIONS (Unit=mm)

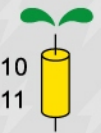
MA-TC



MA-PC



METALLIZED PLASTIC FILM AXIAL LEAD OVAL EXECUTION



DIMENSION OF STANDARD PRODUCTS (Unit=mm)

MEA

R.V. (μF)	SIZE	160VAC (250VDC)			250VAC (400VDC)			300VAC			350VAC			400VAC (630VDC)		
		L	T	H	L	T	H	L	T	H	L	T	H	L	T	H
1		20	6.5	11.5	26	6.5	13	31	7	13.5	31	8.5	15	31	9	18.5
1.5		26	6.5	11.5	26	8	14.5	31	8.5	15	31	11	17.5	31	11.5	21
2		26	7.5	12.5	26	9.5	16	31	10	16.5	36	10.5	20.5	36	12	22
2.5		31	7	13.5	31	9	16	31	11.5	18	36	11.5	21.5	36	13.5	23.5
3		31	7.5	14	31	10	17	36	10	20	36	13	23	36	15	25
4		31	9	15.5	36	9.5	19.5	36	12	22	36	15.5	25	46	15.5	25.5
5		31	10.5	17	36	11	21	36	14	24	36	17.5	27	46	17.5	27.5
6		31	11.5	18	36	12	22	36	15.5	25.5	46	16	26	46	19.5	29.5
7		31	12.5	19	36	13.5	23.5	36	17	27	46	17.5	27.5	46	21.5	31.5
8		36	12	18.5	36	14.5	24.5	36	18.5	28.5	46	19	29	46	23	33
9		36	13	19.5	36	15.5	25.5	46	16.5	26	46	20	30			
10		36	13.5	20	36	16.5	26.5	46	17.5	27	46	21.5	31.5			
11		36	14.5	21	36	17.5	27.5	46	18.5	28	46	23	33			
12		36	15	21.5	36	18.5	28.5	46	19.5	29	46	24	34			

MPA

R.V. (μF)	SIZE	250VAC (400VDC)			300VAC			350VAC			400VAC (630VDC)			450VAC		
		L	T	H	L	T	H	L	T	H	L	T	H	L	T	H
1		26	6	12.5	31	7	13.5	31	9	15	31	10	17	31	12.5	19
1.5		26	7.5	14	31	8.5	15	31	11	17	31	12.5	19.5	36	12.5	21.5
2		26	9	15.5	31	10	16.5	31	13	19	36	12	22	36	14.5	24
2.5		26	9	19	31	11.5	18	36	11.5	21.5	36	14	24	36	16.5	26
3		31	9	18.5	31	13	19.5	36	13	23	36	16	26	36	18.5	28
4		31	10.5	20	36	12.5	22	36	15.5	25.5	46	15	25	46	18	27.5
5		36	12.5	17.5	36	14	23.5	36	17.5	27.5	46	17	27	46	20.5	30
6		36	14	19	36	15.5	25.5	46	16.5	26	46	19	29	46	23	32.5
7		36	15.5	20.5	36	17	27	46	18	27.5	46	21	31	46	25.5	35
8		36	15.5	22	36	18.5	28.5	46	19.5	29	46	23	33	46	27	36.5
10		46	14.5	21	46	17.5	27.5	46	22	31.5	56	23	33			
12		46	15	24.5	46	19.5	29.5	46	24.5	34	56	25	35			

- Dimension(L×T×H) can be adjusted to meet client's special requirements.



GENERAL TECHNICAL DATA

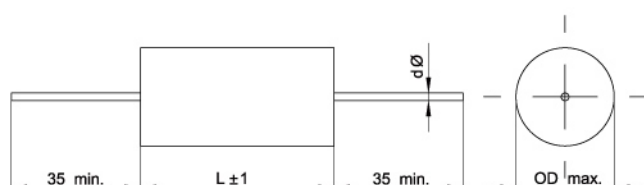
- **Dielectric** : Metallized Polyester or Polypropylene film
- **Winding** : Non-inductive type
- **Protection** : Polyester wrapping and epoxy resin filled
- **Lead style** :
 - TC** Tinned copper wire
 - PC** PVC insulation wire
- **Marking** : Manufacturer's logo, capacitance, tolerance, rated voltage, date code, approvals, series, operating temperature, rated frequency.

ELECTRICAL CHARACTERISTICS

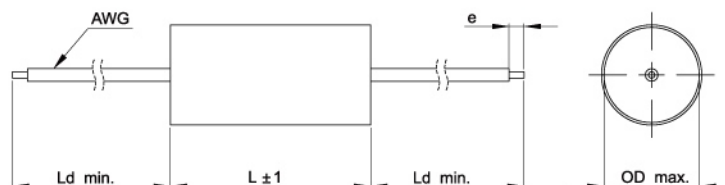
- **Rated Capacitance (Cr)** :
0.1 μ F~100 μ F
- **Rated Voltage (RV)** :
125VAC~600VAC (for AC application)
250VDC~1000VDC (for DC application)
- **Capacitance tolerance (at 1KHZ)** :
 $\pm 5\%$ (J), $\pm 10\%$ (K), $^{+10}_{-5}\%$ (U)
Other tolerances upon request
- **Operating temperature range** :
Min. temperatures : -40°C, -25°C
Max. temperatures : +70°C, +85°C, +105°C
- **Withstand voltage (at 25 $\pm$ 5°C)** :
 - A** Between terminals : 1.75 $\times$ RV for 1~10Sec.
During this test, self-healing are allowed.
 - B** Between terminals and coverage :
2RV+1KV(2000V Min.) for 1~60Sec.
- **Insulation Resistance (R_{ins})** :
Measured at 100VDC, 60 Sec, 25 $\pm$ 5°C
R_{ins} $\geq$ 1000M Ω . μ F (for AC application)
R_{ins} $\geq$ 10 $\times$ 10³M Ω . μ F (for DC application)
- **Dissipation Factor (DF)** :
tan δ , Measured at 25 $\pm$ 5°C, 1KHZ
MET tan δ =1.0%Max **MPT** tan δ =0.5%Max

DIAGRAM OF DIMENSIONS (Unit=mm)

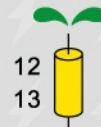
MT-TC



MT-PC



METALLIZED PLASTIC FILM AXIAL LEAD ROUND EXECUTION



DIMENSION OF STANDARD PRODUCTS (Unit=mm)

MET

R.V. (μF)	SIZE	160VAC (250VDC)		250VAC (400VDC)		300VAC		350VAC		400VAC (630VDC)		450VAC	
		L	OD	L	OD	L	OD	L	OD	L	OD	L	OD
0.5		20	8	26	8	26	9	26	10.5	31	10.5	31	11
1		20	10	26	10.5	26	12	26	14	31	14	31	15
1.5		26	10	26	12	31	12.5	31	15	36	15	36	16
2		26	11	31	12	31	14	36	15.5	36	17	36	18.5
2.5		26	12	31	13.5	31	15.5	36	17	36	19	36	20.5
3		26	13	31	14.5	31	17	36	18.5	36	20.5	46	19
3.5		31	12.5	31	15.5	36	16.5	36	19.5	36	22	46	20.5
4		31	13	31	16.5	36	17.5	46	18	46	20.5	46	21.5
4.7		31	14	36	16.5	36	19	46	19.5	46	22	46	23.5
6		31	15.5	36	18.5	46	18	46	21.5	46	24.5	46	26
7		36	15.5	36	19.5	46	19.5	46	23.5	46	26.5		
8.2		36	16.5	46	18	46	21	46	25	46	28.5		
9		36	17	46	18.5	46	22	46	26				
10		36	18	46	19.5	46	23	46	27.5				
15		46	18.5	46	23.5	46	27.5						
20		46	20.5	46	26.5	46	31.5						
33		46	25.5	46	34								
47		46	43	46	40								

MPT

R.V. (μF)	SIZE	250VAC (400VDC)		300VAC		350VAC		400VAC (630VDC)		450VAC	
		L	OD	L	OD	L	OD	L	OD	L	OD
1		26	10	26	12	32	12	26	16	31	16
1.5		26	11.5	31	12.5	32	14.5	31	17	36	17.5
2.2		31	12.5	31	15	32	16.5	36	18.5	36	20.5
3.3		31	14.5	36	16	36	19	36	22	46	21.5
4.7		31	17.0	36	19	36	22.5	46	22	46	25
5.6		36	17.0	36	20.5	46	21.5	46	24	46	27.5
6.8		36	18.5	36	22.5	46	23	46	26.5	46	30
8.2		36	20.5	36	24.5	46	25	46	28.5	46	33
10		46	19	36	26.5	46	27.5	46	27.5	56	32
12		46	20.5	46	25	56	26.5	46	29.5	56	35
15		46	22.5	46	28.5	56	30	56	34.5	56	39
22		46	27.5	46	33.5	56	36	56	41.5		
33		56	27	56	36.5	56	43.5				
47		56	34.5	56	43.5						
68		56	42								

- Dimension(L×OD) can be adjusted to meet client's special requirements.

DESCRIPTION OF LEADS (Unit=mm)

TC leads

W	26.5	30~32	37~39	47~51	58~59
P	22.5	27.5	32.5	42.5	52.5
dφ	0.8	0.8	0.8	1.0	1.0

- Other design upon request

FT leads

Type	a	b
187 Male	0.187"=4.75mm	0.5mm
250 Male	0.250"=6.35mm	0.8mm

ST leads

a	b	φ
4	0.5	2.0

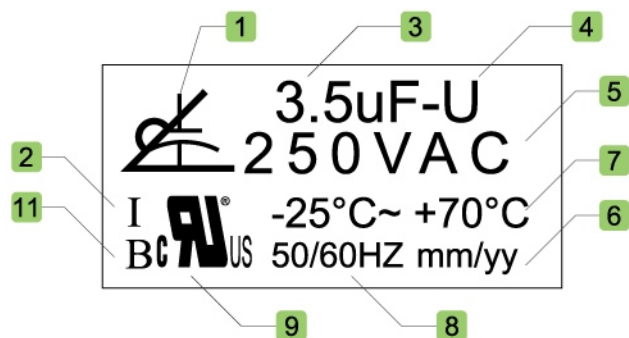
PC leads

Insulator : PVC **Conductor** : Tinned Copper
Type : UL 1015 **Rated Voltage** : 600V
Temperature range : -60°C ~ +105°C

Colors : Black (BK黑)、Blue (BL藍)、Brown (N棕)、
 Green (Gr綠)、Grey (G灰)、Orange (Or橙)、
 Pink (Pi粉紅)、Purple (P紫)、Red (R紅色)、
 White (W白)、Yellow (Y黃)

導體 Conductor			絕緣體 Insulator	總外徑 Overall Diameter (mm)
線號 AWG	截面積 Section (mm²)	導體結構 Composition No. × Diameter of component Wire (No. × mm)	絕緣體厚度 Thickness of insulation (mm)	
22	0.30	17 x 0.160	0.76	2.40
20	0.50	21 x 0.180	0.76	2.60
18	0.75	34 x 0.180	0.76	2.80
16	1.25	26 x 0.254	0.76	3.10

MARKING



- Manufacture's name or trade mark
We use "LUNGCHEN" or as our registered mark.

- Factory location and ID

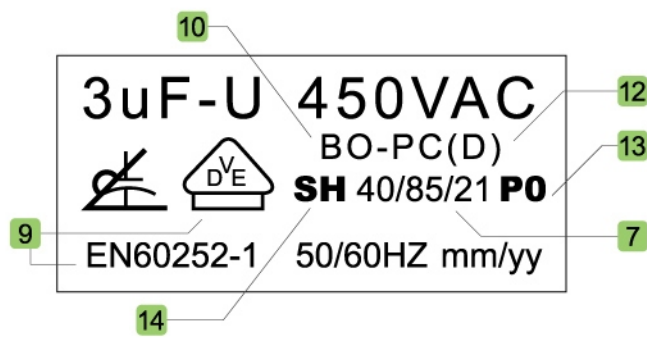
Location	ID
Taichung, Taiwan	" I "
Dongguan, China	" None "

- Rated Capacitance (In microfarads)

- Capacitance tolerance

J = ±5% U = ±10% K = ±10% M = ±20%

- Rated Voltage (In volts)



- Manufacturing date code
mm=month : yy=year
EX : 01/11 (January 2011)
12/12 (December 2012)

- Normal service condition

- Operating temperature range :
Min. temperatures : -40°C, -25°C
Max. temperatures : +70°C, +85°C
- Damp heat severity : 21 days

- Rated frequency (In hertz)

- Approval marks



U.S.A.



CANADA



GERMANY

Approval mark	Standard No.	Certificate
UL/CSA	UL 810	E 189841
VDE	EN 60252-1	40020020

10 Type designation of VDE approval

Type	Description
BO-ST	Soldering terminals
BO-TC	Tinned copper clad steel wire radial leads
BO-PC	PVC insulation wire
BO-FT	Fast-on terminals
BT-ST	Soldering terminals with mounting metal plates on top of case
BT-PC	PVC insulation wire with mounting metal plates on top of case
BT-FT	Fast-on terminals with mounting metal plates on top of case
BL-ST	Soldering terminals with mounting plates in case
BL-PC	PVC insulation wire with mounting plates in case
BL-FT	Fast-on terminals with mounting plates in case

11 Type designation of UL approval

- B** Plastic case
- R** Round Aluminum can
- MA** Axial Lead , Oval Execution
- MT** Axial Lead, Round Execution

12 Class of operation (Life expectancy)

- Class A** 30,000 h
- Class B** 10,000 h
- Class C** 3,000 h
- Class D** 1,000 h

13 Class of safety protection

- P0** No specific failure protection

14 **SH** It means Self-Healing capacitor

QUALITY ASSURANCE

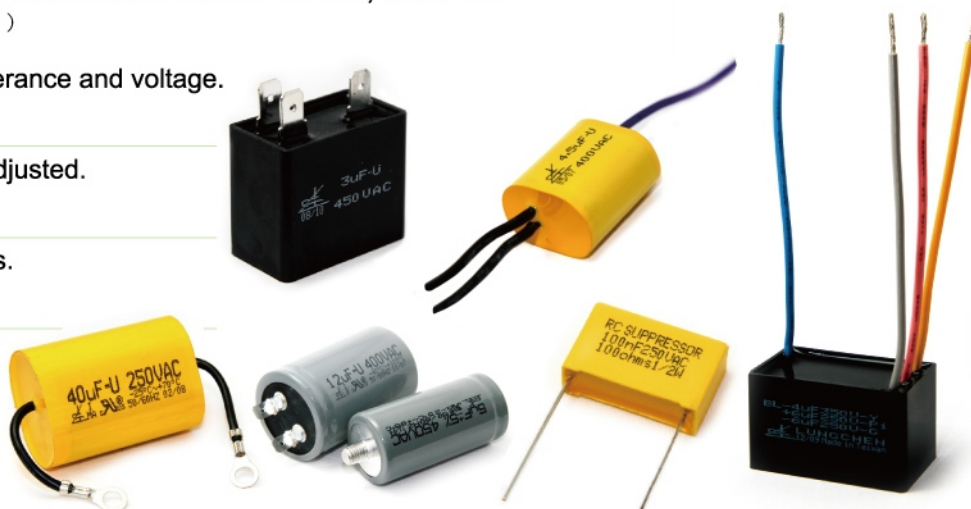


OTHERS

We also accept customization to meet customer needs, such as:

(我們也接受客制化來滿足客戶需求,例如:)

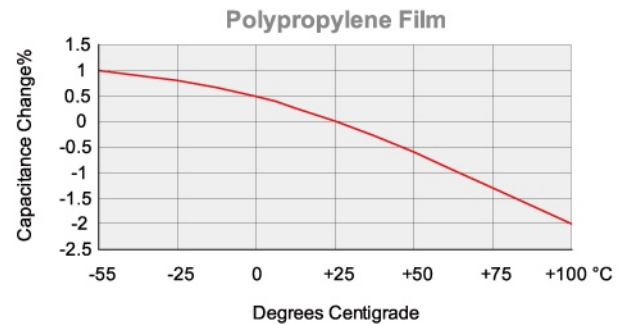
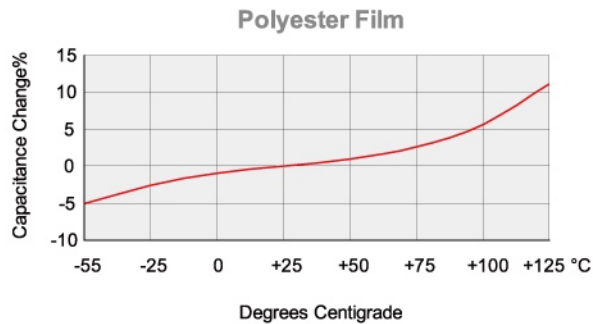
- 1 Special Rated Capacitance, tolerance and voltage.
特殊容量,容差,和耐壓
- 2 Shape and dimension can be adjusted.
外形和尺寸能隨需求調整
- 3 Special functions or applications.
特殊的功能或應用
- 4 Marking upon request
依照客戶需求印刷
- 5 Special Leads
特殊引線



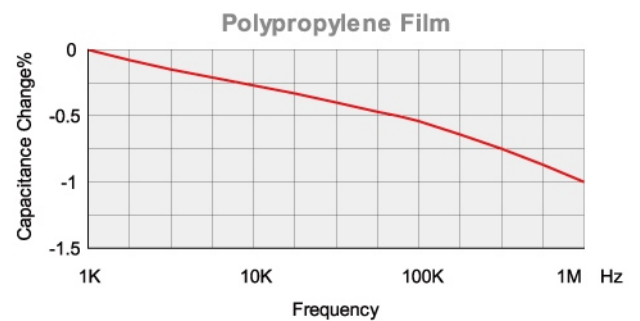
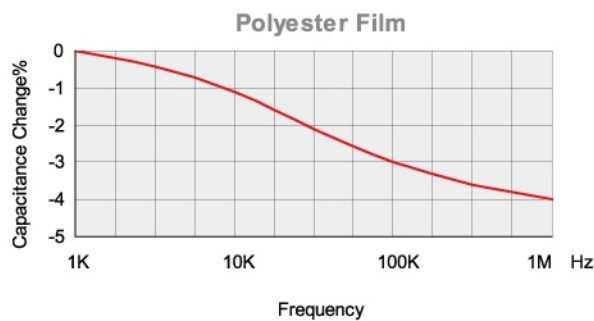


TYPICAL CHARACTERISTICS OF CAPACITOR

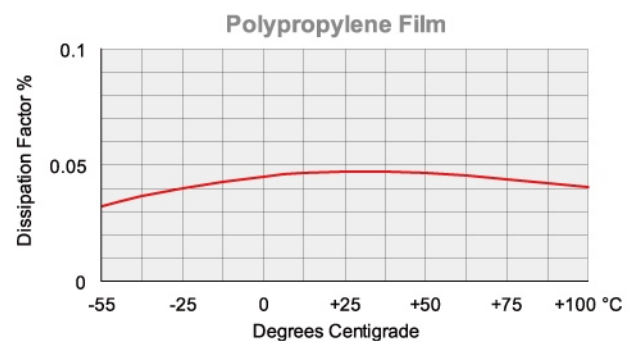
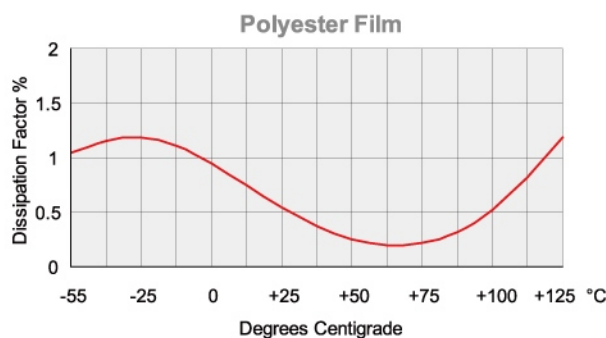
• Capacitance Change vs Temperature (at 1kHz)



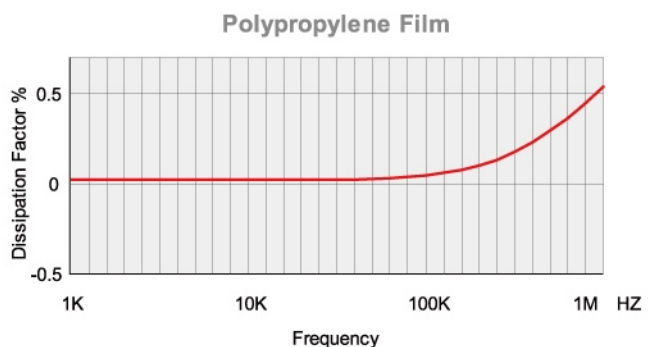
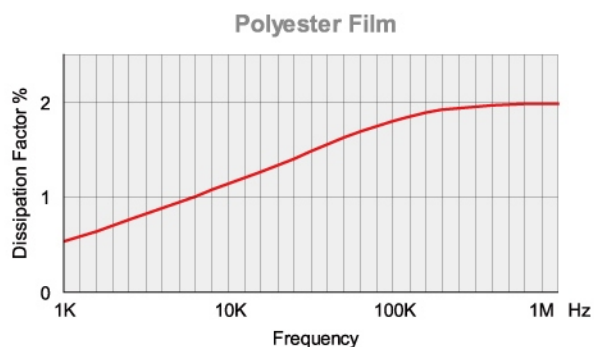
• Capacitance Change vs Frequency (at 25°C)

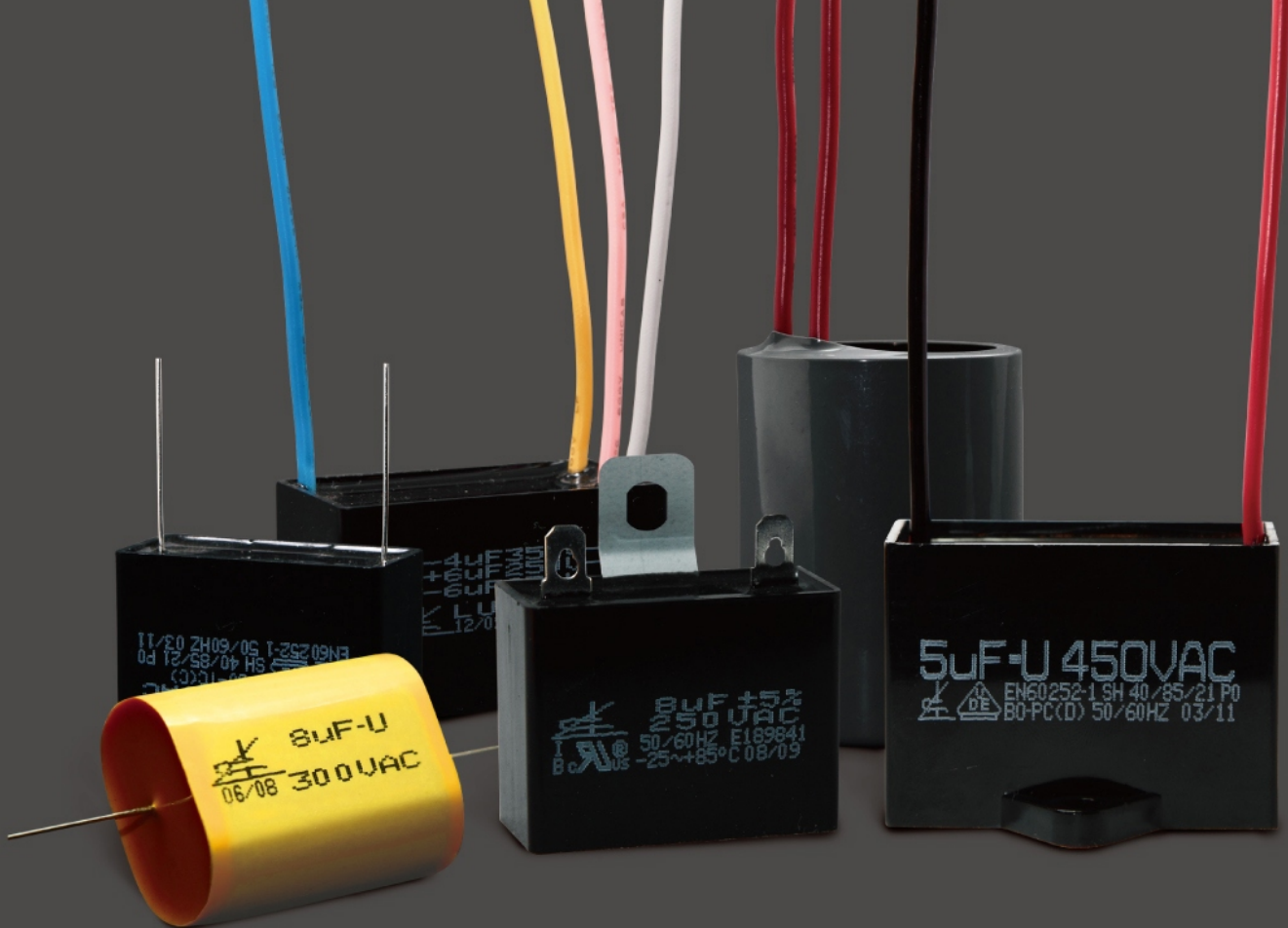


• Dissipation Factor Change vs Temperature (at 1 kHz)



• Dissipation Factor Change vs Frequency (at 25°C)





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