



LIAONING DIYA CAPACITOR CO., LTD

辽宁迪亚电容器有限公司

**FACTORY:** LIAONING DIYA CAPACITOR CO.,LTD.

工厂: 辽宁迪亚电容器有限公司

**FACTORY ADD:** North 3 Road 12, The East of Road C

工厂地址: 中国辽宁省, 阜新市,

**Economic. & Technological Development Zone Fuxin Liaoning China**

经济技术开发区C路东12路北3号

**SALE TEL:** 0086-0418-6533333

销售电话: 0086-0418-6533333

**SALE FAX:** 0086-0418-6534333

销售传真: 0086-0418-6534333

**TECHNIQUE TEL:** 0086-0418-6690599

技术电话: 0086-0418-6690599

**TECHNIQUE FAX:** 0086-0418-6534777

技术传真: 0086-0418-6534777



**CUSTOMER**

**ITEM**

**CUSTOMER'S PART NO.**

**DIYA'S P/N**

**CL71**

**ISSUED DATE**

**Customer Approved**

**Tested**

**Approved**

Zhangshujie

Shihongyan

**DATE:**

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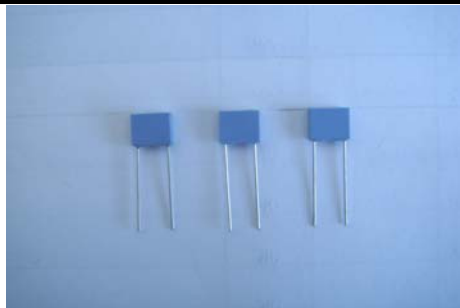


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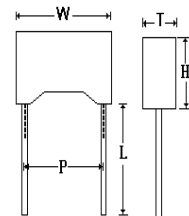
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Metallized polyester film capacitor-box

CL71



BLUE BOX



22nJ100

Dimensions (Unit:mm)

DIYA'S P/N	CUSTOMER'S PART NO.	Cr	Tol.	RV.	TV.	W	H	T	P	d	L	STYLE
		$\mu\text{F}$	$\pm\%$	VDC	VDC	max	max	max	$\pm 1.0$	$\pm 0.05$	min	BK/TP
CL71-100V-102J		0.001	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-152J		0.0015	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-222J		0.0022	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-332J		0.0033	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-472J		0.0047	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-562J		0.0056	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-682J		0.0068	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-822J		0.0082	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-103J		0.01	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-153J		0.015	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-223J		0.022	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-333J		0.033	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-473J		0.047	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-563J		0.056	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
CL71-100V-683J		0.068	5	100	1.6UR	7.2	6.5	2.5	5	0.5		
★CL71-100V-823J		0.082	5	63	100.8	7.2	6.5	2.5	5	0.5		
★CL71-100V-104J		0.1	5	63	100.8	7.2	6.5	2.5	5	0.5		
★CL71-100V-224J		0.22	5	63	100.8	7.2	7.5	3.5	5	0.5		
★CL71-100V-334J		0.33	5	63	100.8	7.2	9.5	4.5	5	0.6		
★CL71-100V-474J		0.47	5	63	100.8	7.2	9.5	4.5	5	0.6		
★CL71-100V-684J		0.68	5	63	100.8	7.2	11	6	5	0.6		
★CL71-100V-105J		1.0	5	63	100.8	7.2	11	6	5	0.6		

**TYPE: CL71**

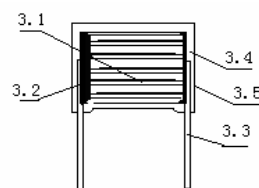
1	PRODUCT SCOPE	It is sealed by the flame-retarded epoxy resin, it has good reliable ,low loss,good electrical features,uniform dimension.and self-healing effect.it can be widely applied in all kinds of radial taping and can be automatic assemble.it can be widely applied in all kinds of circuit or DC and pulse
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**2、STANDARD ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS**

NO.	ITEM	TEST CONDITIONS
2. 1	AMBIENT TEMPERATURE	15℃ to 35℃ (If there is any doubt on the results, the measurements shall be made at 20±5℃)
2. 2	RELATIVE HUMIDITY (R.H.)	30% to 80% (If there is any doubt on the results, the measurements shall be made at 60% to 70%.)
2. 3	AIR PRESSURE	86 kpa to 106 kpa.
2. 4	OPERATING TEMPERATURE RANGE	-55℃to +85℃ for which the capacitor can be operated continuously at rated voltage.

**3、CONSTRUCTION**

NO.		
3. 1	DIELECTRIC	Metallized Polyester Film
3. 2	METAL SPRAY	Special Solder
3. 3	LEAD WIRE	Wire
3. 4	INNER COATING	Epoxy Resin (UL94-V0)
3. 5	OUTER COATING	PBT Case (UL94-V0)

**4、MARKING**

4. 1	TRADEMARK		<b>22nJ100</b>
4. 2	CAPACITANCE	0.022μF	
4. 3	TOLERANCE	J: ±5%	
4. 4	RATED VOLTAGE	100V	
4. 5	MARKING COLOR	Black	

**TYPE: CL71****5. ELECTRICAL CHARACTERISTICS:**

NO.	ITEM		PERFORMANCE	TESTING METHOD
5.1	Withstand Voltage (TV)	Between Terminals	Shall be no abnormality.	1.6UR for rated voltage .with ★ is 100.8V . 1~5 sec. at 20±5℃ The charging current must be ≤1 Amp
5.2	Insulation Resistance (I.R.)		$\geq 7500M\Omega$ ( $Cr \leq 0.33\mu F$ ) $\geq 2500S$ ( $Cr > 0.33\mu F$ )	Apply $V_t \pm 15\%$ for 60 ±5 sec.
5.3	Capacitance (CAP)		Within the tolerance specified at 20±5℃	Measuring Frequency: 1KHz±10%. Measuring Voltage : ≤1 Vrms
5.4	Dissipation Factor (DF)		≤0.010 (1%) at 1 KHz.	Measuring Frequency: 1KHz±10%. Measuring Voltage : ≤1 Vrms
5.5	Soldering Property		More than 90% of circumferential surface of lead wire shall be covered with new solder.	Soldering temperature : 235 ±5℃ Immersion duration : 2±0.5 sec.

**6. ENDURANCE CHARACTERISTICS:**

NO.	ITEM		PERFORMANCE	TESTING METHOD
6.1	Damp Heat Loading	Appearance	Shall be no remarkable change. The marking shall be legible.	Test temperature : 40±2℃ humidity : 90% to 95% R.H. Test duration: 21d. After test, allow it stay alone for 1.5±0.5 hrs at standard temperature and humidity before making measurements.
		Capacitance Change Rate ( $\Delta C/C$ )	Within ±5% of the value before test.	
		Dissipation Factor Change	$\Delta \tan\delta$ : 0.5% max	
		Insulation Resistance (I.R.)	$\geq 50\%$ of the limit value of No. 5.2.	

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**TYPE: CL71****6. ENDURANCE CHARACTERISTICS:**

NO.	ITEM		PERFORMANCE	TESTING METHOD
6. 2	High Temperature loading	Appearance	Shall be no remarkable change.	Test Temperature: $85 \pm 5^{\circ}\text{C}$ . Apply 125% of rated voltage for $1000^{+2}_{-0}$ hrs; After test, allow it stay alone for $1.5 \pm 0.5$ hrs at standard temperature and humidity before making measurements.
		Capacitance Change ( $\Delta C/C$ )	Within $\pm 5\%$ of the value before test.	
		Dissipation Factor Change	$\Delta \tan \delta$ : 0.3% max.(10KHz)	
		Insulation Resistance (I.R.)	$\geq 50\%$ of the limit value of No. 5.2.	
6. 3	Heat Resistance	Appearance	Shall be no remarkable change.	Test temperature: $85 \pm 5^{\circ}\text{C}$ Test time : $16 \pm 1/-0$ hrs.
6. 4	Cold Resistance	Appearance	Shall be no remarkable change.	Test temperature : $-55 \pm 2^{\circ}\text{C}$ Test time : $2 \pm 0.5$ hrs.
	Rapid Temperature Change	Appearance	Shall be no remarkable change.	Test temperature cycle: Total 5 cycles High Temperature: $85 \pm 5^{\circ}\text{C}$ Low Temperature : $-55 \pm 5^{\circ}\text{C}$ $30 \pm 3$ min for each temperature

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**TYPE: CL71**

**6. ENDURANCE CHARACTERISTICS:**

NO.	ITEM		PERFORMANCE	TESTING METHOD
6. 6	Resistance to Soldering Heat	Appearance	Shall be no remarkable change. The marking shall be legible.	Soldering Temperature: 260±5℃ Immersion Duration: 3±0.5 sec. Immersion depth: 4±0.5 mm from roots. After test, allow it stay alone for 1.5±0.5 hrs. at standard temperature and humidity before making measurements.
		Capacitance Change Rate ( $\Delta C/C$ )	Within±3% of the value before test.	

**7. ACCEPTABLE QUALITY LEVEL (AQL)**

NO.	ITEM	AQL	SAMPLING PLAN
7. 1	Appearance AQL	0. 4	According to GB2828-2003
7. 2	Dimension AQL	0. 4	
7. 3	Mechanical Characteristics AQL	0. 4	
7. 4	Electrical Characteristics AQL		
	CAP, DF,	0.065	
	TV, IR,	0.065	

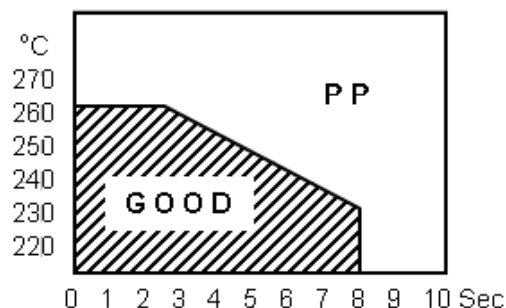
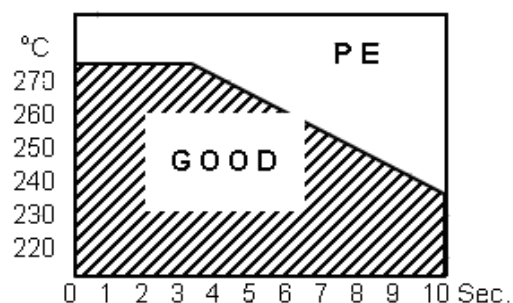
**8. STORING CONDITION:**

NO.	ITEM	Request & Times
	Storing condition	The products shall be stored in the conditions not exceeding at a temperature 15~35℃ and a humidity 30~80%RH. After more than 6 months need to reply to measure a factory

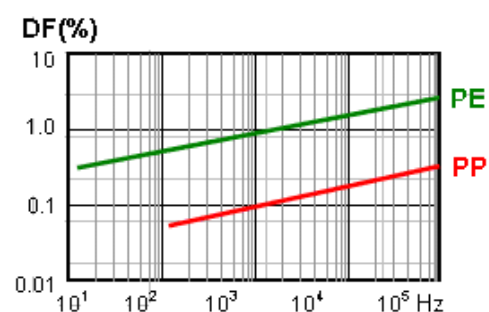
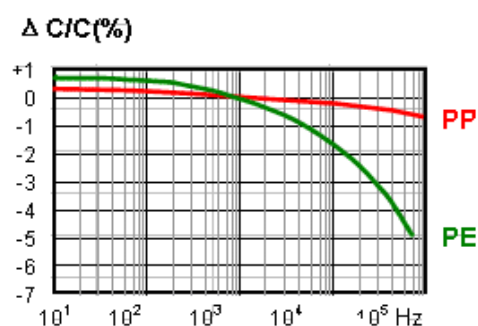
## CHARACTERISTICS REFERENCE

### 焊锡温度、频率、温度特性曲线图

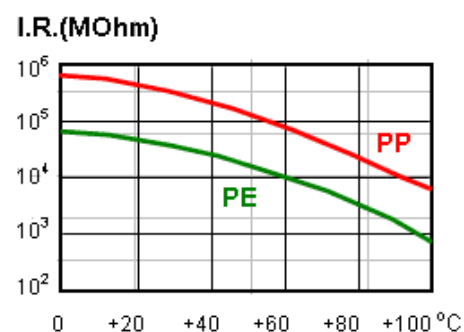
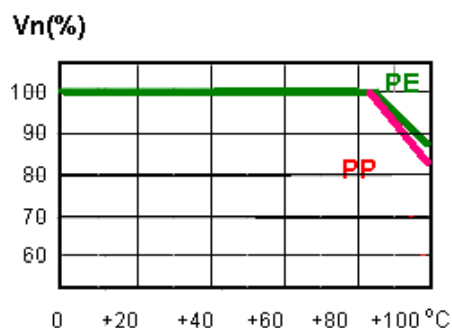
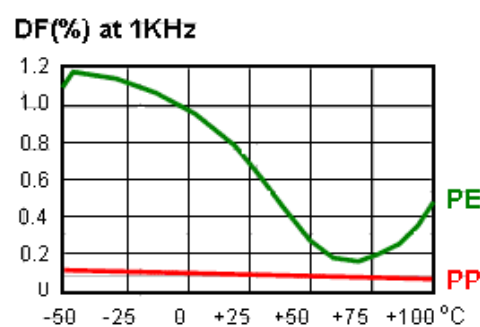
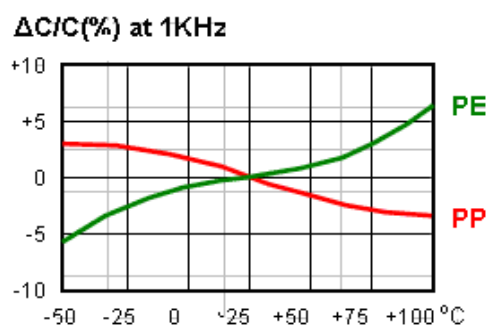
#### Soldering Temperature VS Time



#### Frequency Characteristics

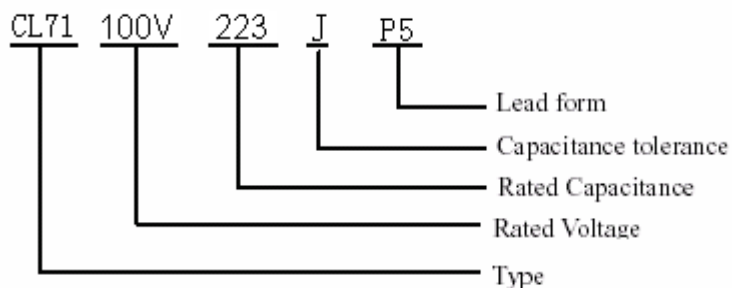


#### Temperature Characteristics





The order must know:



### 1. The model number explain:

PP: Polypropylene Film (CBB21, CBB13, CBB81, CBB20, CBB18, X2-MKP, X1-MKP)

PE: Polyester Film (CL71, CL21X, CL21, CL11, CL12, CL20, X2-MKT, X1-MKT, CL21-B)

### 2. In common use electric voltage code:

VDC	50	63	100	160	200	250	400
Code	1H	1J	2A	2C	2D	2E	2G
VDC	630	1000	1250	1600	2000	2500	3000
Code	2J	3A	3B	3C	3D	3E	3F

### 3. The unit converter:

$1.0 \mu f = 1000nf = 1,000,000pf$

$106 = 10,000,000pf = 10,000nf = 10\mu f$

$105 = 1000,000pf = 1000nf = 1.0\mu f$

$104 = 100,000pf = 100nf = 0.1\mu f$

$103 = 10,000pf = 10nf = 0.01 \mu f$

$102 = 1000pf = 1nf = 0.001\mu f$

$101 = 100pf = 0.1nf = 0.0001\mu f$

### 4.Capacity deviation:

TOL.	$\pm 1\%$	$\pm 1.3\%$	$\pm 2\%$	$\pm 3\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$
Code	F	A	G	H	J	K	M

### 5. Derivation line shape

#### 5.1 The derivation line keeps the feet

Code	P7.5	P10	P15	P20	P22.5	P30	P35
Pitch	7.5mm	10mm	15mm	20mm	22.5mm	30mm	35mm

#### 5.2 The derivation line model

Code	S7.5	S10	S15	S20	S22.5	S30	S35
Pitch	7.5mm	10mm	15mm	20mm	22.5mm	30mm	35mm



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