

CL11 金属箔式聚酯膜介质直流固定电容器

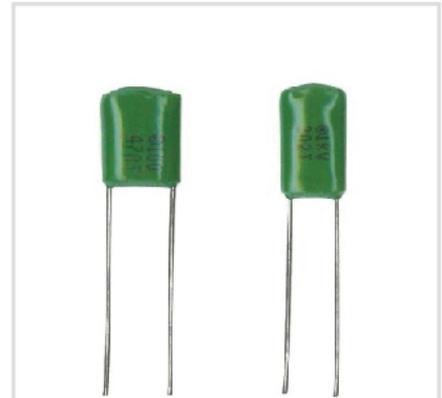
Model metal foil type polyester film DC stationary capacitor

特点与用途 FEATURES & APPLICATION

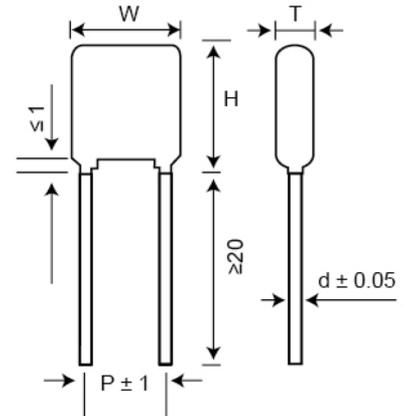
- 采用聚酯薄膜作介质，铝箔作电极。
- 外包封浸绝缘材料，单向引出。
- 体积小，绝缘性能高，能承受较高温度。
- 该产品适用于电视机、收率机、VCD、节能灯、电子镇流器、通讯设备及其它电子仪器，仪表的直流或脉冲电路中。
- Polyester film as medium, and aluminum foil as electrode.
- Encapsulated with epoxide resin, and unilateral lead-out.
- Compact, good insulating performances, and resistant to high temperature.
- Suitable for DC or pulsed circuit in TV set, Recorder, VCD, economical lamps, electronic ballast, telecommunication equipment, and other electronic instruments and meters.

技术特性 TECHNICAL CHARACTERISTICS

环境温度 Operating temperature range	-55°C~+110°C
电容量偏差等级 Capacitance tolerance	±5%(J), ±10%(K), ±20%(M)
试验电压 Testing voltage	2.5UR (1-5S)
损耗角正切值 Dissipation factor	≤ 0.011 (10KHZ)
绝缘电阻 Insulation resistance	≥ 30000MΩ



外形图 APPEARANCE



CL20A/T 轴向金属化聚酯膜电容器

Metalized polyester film capacitor (Axial-type)

特点与用途 FEATURES & APPLICATION

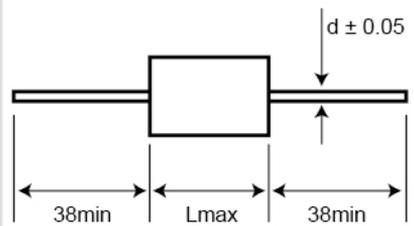
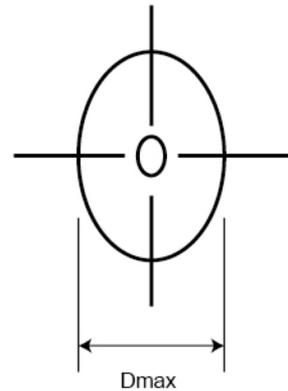
- 金属化聚酯膜，卷绕结构
- 体积小，重量轻，自愈性能优异
- 外包装聚酯胶带纸，两端灌注环氧树脂
- 隔直，旁路和耦合(去耦)
- Metallized polyester film, non-inductive wound construction.
- Small size, light weight, excellent self-healing property.
- Wrapped with polyester adhesive tape and both ends filled with epoxy resin.
- Suitable for blocking, by-pass, coupling, and decoupling.

技术参数 TECHNICAL PARAMETER

引用标准 Reference Standard	GB/T 7332 (IEC 60384-2)					
气候类别 Climatic Category	40/100/21					
额定温度 Rated Temperature	85°C					
工作温度范围 Operating Temperature Range	-40°C、100°C (+85°C to +100°C : decreasing factor 1.25% per°C for U_R)					
额定电压 Rated Voltage	50V、63V、100V、250V、400V、630V、1000V					
电容量范围 Capacitance Range	0.0010 μ F-10.0 μ F					
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $\pm 20\%$ (M)					
耐电压 Voltage Proof	1.6 U_R (5s)					
损耗角正切 Dissipation Factor	$\leq 1.0\%$ (20°C, 1kHz)					
绝缘电阻 Insulation Resistance	$\geq 30\ 000\ M\Omega$, $C_R \leq 0.33\ \mu F$ (20°C, 1min) $\geq 10\ 000\ s$, $C_R > 0.33\ \mu F$					
最大脉冲爬升速率 Maximum Pulse Rise Time (dV/dt): 若实际工作电压U比额定电压 U_R 低, 电容器可工作在更高的dV/dt场合。这样dV/dt允许值应为右表值乘以 U_R/U 。 If the working voltage (U) is lower than the rated voltage (U_R), the capacitor can be worked at a higher dV/dt. In this case, the maximum allowed dV/dt is obtain by multiplying the right value with U_R/U .	$U_R(V)$	dV/dt (V/ μ s)				
		L=12.0	L=14.5	L=20.0	L=27.5	L=33.0
	50/63	6	6	2	1.5	1
	100	9	9	3	2	1
	250	20	20	8	5	2.5
	400	30	30	10	6	4
	630	40	40	15	10	6
1000	50	50	25	12	8	



外形图 APPEARANCE



CL21 金属化聚酯膜电容器 - 浸渍型

Metalized polyester film capacitor (Dipped)

特点与用途 FEATURES & APPLICATION

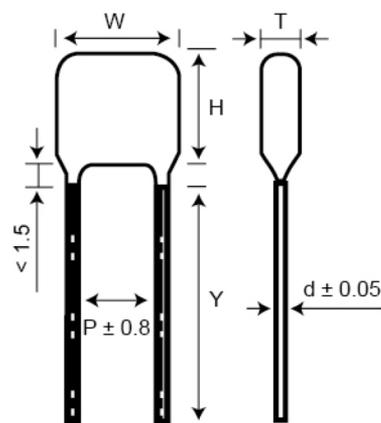
- 金属化聚酯膜，无感卷绕结构
- 体积小，自愈性好
- 阻燃性环氧粉末封装 (UL94/V-0)
- 用于开关电源、电子镇流器和变频器等中间电路直流滤波 (如：DC-Link、PFC等)
- Metallized polyester film, non-inductive wound construction.
- Small size and Excellent self-healing property.
- Flame retardant epoxy resin coating (UL94/V-0).
- As intermediate circuit capacitors for SMPS、Electronic Ballast、inverter (i.e. DC-link, DC-filter and P.F.C).

技术参数 TECHNICAL PARAMETER

引用标准 Reference Standard	GB 7332 (IEC 60384-2)				
气候类别 Climatic Category	50/105/21				
额定温度 Rated Temperature	85°C				
工作温度范围 Operating Temperature Range	-55°C、105°C (+85°C to +105°C : decreasing factor 1.25% per°C for U _R)				
额定电压 Rated Voltage	250V、400/450V、520V、630V				
电容量范围 Capacitance Range	0.010μF-10.0μF				
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)				
耐电压 Voltage Proof	1.6U _R (5s)				
损耗角正切 Dissipation Factor	≤ 0.8% (20°C, 1kHz)				
绝缘电阻 Insulation Resistance	≥ 30 000MΩ, C _R ≤ 0.33μF (20°C, 100V, 1min) ≥ 10 000s C _R > 0.33μF				
最大脉冲爬升速率 Maximum Pulse Rise Time (dV/dt): 若实际工作电压U比额定电压U _R 低, 电容器可工作在更高的dV/dt场合。这样dV/dt允许值应为右表值乘以U _R /U。 If the working voltage (U) is lower than the rated voltage (U _R), the capacitor can be worked at a higher dV/dt. In this case, the maximum allowed dV/dt is obtain by multiplying the right value with U _R /U.	U _R (V)	dV/dt (V/μs)			
		P=7.5	P=10.0	P=15.0	P=22.5
	250	80	60	50	30
	400/450	150	120	100	50
	520	200	180	150	80
630	350	300	200	100	



外形图 APPEARANCE



CL21X-B 金属化聚酯膜电容器盒式

Metalized polyester film capacitor- (Box-type)

特点与用途 FEATURES & APPLICATION

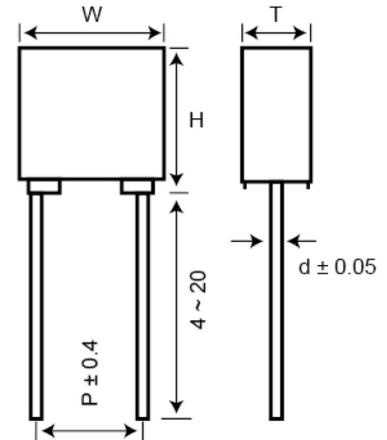
- 金属化聚酯膜
- 阻燃环氧盒式封装 (UL94-v0)
- 滤波, 旁路, 隔直, 耦合, 退耦
- 紧凑型节能灯, UPS电源, 定时器
- LCD监视器整流, 直流马达抑制干扰
- Metallized polyester film.
- Plastic case and epoxy resin sealing (UL94-v0).
- By-passing, blocking, coupling, decoupling.
- CFL, UPS.
- Inverter for LCD monitors, automotive DC motor suppression.

技术参数 TECHNICAL PARAMETER

产品类别 Products Category	CL - DC Series				
引用标准 Reference Standard	IEC 60384-2				
气候类型 Climatic Category	40/110/56 IEC 60068-1				
	Average relative humidity≤75%				
	RH=95% for 30 days per year				
	RH=85% for further days limited by average value per year				
温度范围 Operating temperature range	-40 ~ +110 °C				
最高温度 Rated temperature T_R	+125°C				
额定电压 Rated Voltage DC V_R	63V	100V	160V	250V	400V
额定电压 Rated Voltage AC V_R	110V	160~220V	250V	275V	300V
容量范围 Capacitance range μF	0.22-4.	0.01-4.7	0.01-3.3	0.01-2.2	0.01-1.0
容量偏差 Capacitance Tolerance	$\pm 2\%$ (G), $\pm 3\%$ (H), $\pm 5\%$ (J), $\pm 10\%$ (K)				
耐电压 Voltage Proof	极间耐压 Between Terminals	1.6Un (2S)			
	极壳耐压 Between Terminals To Case	2.0Un (5S)			
绝缘电阻 Insulation Resistance	$\geq 15000M\Omega$ ($CR \leq 0.33\mu F$)	25°C, 1min			
	$\geq 5000s$ ($CR > 0.33\mu F$)				
损耗角正切 Dissipation factor	$Cr < 1\mu F$: $DF \leq 0.8\%$ (1KHZ 25±5°C)				
	$Cr \geq 1\mu F$: $DF \leq 1\%$ (1KHZ 25±5°C)				
等效串联电感 Self Inductance (lead length~2mm)	Lead spacing 5 mm:	L = 7 n H			
	Lead spacing 7.5 mm:	L = 9 n H			
Environmental Test Data					
Test	IEC Publication	Procedure			
Endurance	IEC 60384-2	1.25*Un , 500 hours at 100 °C±2°C			
Change of temperature	IEC 60068-2-14 Test Eb	+100°C and -56°C 5 cycles			
Damp heat steady state	IEC 60068-2-78 Test Cab	+40°C and 93% RH ,56 days			



外形图 APPEARANCE



产品尺寸表 SIZE TABLE

50-63VDC									100VDC								
容量 (μ F)	电压 voltage		外壳尺寸 CASE SIZE (mm)			间距 (mm)	d	DV/DT	容量 (μ F)	电压 voltage		外壳尺寸 CASE SIZE (mm)			间距 (mm)	d	DV/DT
	DC	AC	Width	Height	Depth	Pitch(\pm 0.5)	\pm 0.05mm	V/us		DC	AC	Width	Height	Depth	Pitch(\pm 0.5)	\pm 0.05mm	V/us
0.001	50-63	30	7.2	6.5	2.5	5	0.5	260	0.001	100	63	7.2	6.5	2.5	5	0.5	300
0.0015	50-63	30	7.2	6.5	2.5	5	0.5	200	0.0015	100	63	7.2	6.5	2.5	5	0.5	300
0.0022	50-63	30	7.2	6.5	2.5	5	0.5	200	0.0022	100	63	7.2	6.5	2.5	5	0.5	260
0.0033	50-63	30	7.2	6.5	2.5	5	0.5	200	0.0033	100	63	7.2	6.5	2.5	5	0.5	260
0.0047	50-63	30	7.2	6.5	2.5	5	0.5	200	0.0047	100	63	7.2	6.5	2.5	5	0.5	260
0.01	50-63	30	7.2	6.5	2.5	5	0.5	200	0.01	100	63	7.2	6.5	2.5	5	0.5	260
0.015	50-63	30	7.2	6.5	2.5	5	0.5	200	0.015	100	63	7.2	6.5	2.5	5	0.5	260
0.022	50-63	30	7.2	6.5	2.5	5	0.5	160	0.022	100	63	7.2	6.5	2.5	5	0.5	200
0.033	50-63	30	7.2	6.5	2.5	5	0.5	160	0.033	100	63	7.2	6.5	2.5	5	0.5	200
0.047	50-63	30	7.2	6.5	2.5	5	0.5	160	0.047	100	63	7.2	6.5	2.5	5	0.5	200
0.068	50-63	30	7.2	6.5	2.5	5	0.5	160	0.068	100	63	7.2	6.5	2.5	5	0.5	200
0.1	50-63	30	7.2	6.5	2.5	5	0.5	160	0.1	100	63	7.2	7.5	3.0	5	0.5	200
0.15	50-63	30	7.2	7.5	3.0	5	0.5	120	0.15	100	63	7.2	7.5	3.5	5	0.5	160
0.22	50-63	30	7.2	7.5	3.5	5	0.5	100	0.22	100	63	7.2	9.5	4.5	5	0.5	160
0.33	50-63	30	7.2	10	5	5	0.5	80	0.33	100	63	7.2	10	5	5	0.5	120
0.47	50-63	30	7.2	10	5	5	0.5	80	0.47	100	63	7.2	10	5	5	0.5	120
0.68	50-63	30	7.2	11	6	5	0.6	80	0.68	100	63	7.2	11	6	5	0.6	120
1.0	50-63	30	7.2	11	6	5	0.6	80	1.0	100	63	7.2	11	6	5	0.6	120
1.5	50-63	30	7.2	12	7.2	5	0.6	60									
2.2	50-63	30	7.2	12	7.2	5	0.6	60									
250VDC									400VDC								
容量 (μ F)	电压 voltage		外壳尺寸 CASE SIZE (mm)			间距 (mm)	d	DV/DT	容量 (μ F)	电压 voltage		外壳尺寸 CASE SIZE (mm)			间距 (mm)	d	DV/DT
	DC	AC	Width	Height	Depth	Pitch(\pm 0.5)	\pm 0.05mm	V/us		DC	AC	Width	Height	Depth	Pitch(\pm 0.5)	\pm 0.05mm	V/us
0.001	100	63	7.2	6.5	2.5	5	0.5	400	0.001	100	63	7.2	6.5	2.5	5	0.5	1000
0.0015	100	63	7.2	6.5	2.5	5	0.5	400	0.0015	100	63	7.2	6.5	2.5	5	0.5	1000
0.0022	100	63	7.2	6.5	2.5	5	0.5	400	0.0022	100	63	7.2	6.5	2.5	5	0.5	800
0.0033	100	63	7.2	6.5	2.5	5	0.5	300	0.0033	100	63	7.2	9	3.5	5	0.5	800
0.0047	100	63	7.2	6.5	2.5	5	0.5	300	0.0047	100	63	7.2	7.5	3.5	5	0.5	800
0.01	100	63	7.2	6.5	2.5	5	0.5	300	0.01	100	63	7.2	9	4.5	5	0.5	600
0.015	100	63	7.2	6.5	2.5	5	0.5	300	0.015	100	63	7.2	10	5	5	0.5	600
0.022	100	63	7.2	7.5	3.5	5	0.5	260	0.022	100	63	7.2	11	6	5	0.5	600
0.033	100	63	7.2	7.5	3.5	5	0.5	260	0.033	100	63	7.2	11	6	5	0.5	400
0.047	100	63	7.2	9	4.5	5	0.5	260	0.047	100	63	7.2	11	6	5	0.5	400
0.068	100	63	7.2	9.5	4.5	5	0.5	260									
0.1	100	63	7.2	10	5	5	0.5	260									
0.15	100	63	7.2	11	6	5	0.5	200									
0.22	100	63	7.2	13	7.2	5	0.5	200									

CL21X 超小型金属化聚酯电容器

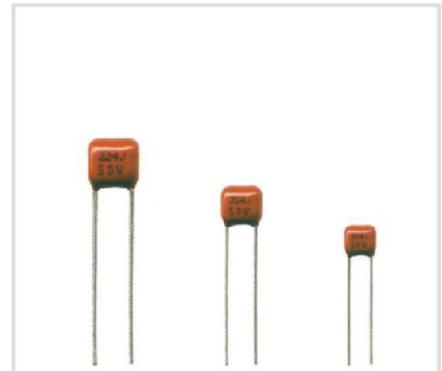
Super Small Size Type Metallized Polyester Film Capacitor

特点与用途 FEATURES & APPLICATION

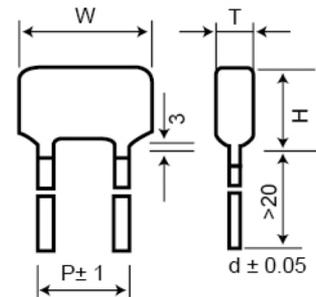
- 金属化聚酯薄膜卷绕而成。
 - 塑壳、径向引出。
 - 超小型化、有良好的自愈性、高绝缘电阻、低损耗。
 - 适用于电视机、收音机、程控交换机、电子仪器及各类通讯设备等电路。
 - 具有阻燃、校正的作用。
- Wound with Metallized Polyester Film.
 - Dipped Epoxy Coating and Radial lead Arrangement.
 - Small size, excellent self-healing property. Good insulation performance and low loss.
 - Used in TV, Circuits of Electrical Instruments. Such as Electronic Instrument or all types of transmission instrument etc.
 - With fire retardant, correction function.

电性能 SPECIFICATION

环境温度 Operating temperature range	-40°C~+85°C
试验电压 Testing voltage	2倍额定电压 Rated Voltage x 200%
电容量偏差等级 Capacitance tolerance	±5%(J), ±10%(K), ±20%(M)
损耗角正切值 Dissipation factor	≤ 0.015 (25°C 10KHZ)
绝缘电阻 Insulation resistance	$C_R \leq 0.33\mu F \geq 3750M\Omega$ $C_R \leq 0.33\mu F \geq 1250S$



外形图 APPEARANCE



产品尺寸表 SIZE TABLE

标称容量 Rated capacitance μF	外形尺寸 (mm) Dimensions mm	63V					100V				
		W max	H max	T max	P	d	W max	H max	T max	P	d
0.01		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.015		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.022		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.033		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.047		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.068		8	7.5	5	5	0.6	8	7.5	5	5	0.6
0.1		8	7.5	5	5	0.6	10.5	7.5	5	7.5	0.6
0.15		8	7.5	5	5	0.6	10.5	8	5.5	7.5	0.6
0.22		10.5	7.5	5	7.5	0.6	10.5	9	6.5	7.5	0.6
0.33		10.5	7.5	5	7.5	0.6	12.5	9.5	6	10	0.6
0.47		10.5	8.5	6	7.5	0.6	12.5	10.5	7	10	0.6
0.68		10.5	8.5	6.5	7.5	0.6	12.5	11	8	10	0.6
1.0		13	9	6	10	0.6	20	11	7	17.5	0.8
1.5		13	9	7	10	0.6	20	11	7.5	17.5	0.8
2.2		13	11.5	8	10	0.6	20	15	8.5	17.5	0.8
3.3		20	11	7.5	17.5	0.8	25	17	7.5	22.5	0.8
4.7		25	14	6.5	22.5	0.8	25	19	9	22.5	0.8
6.8		25	16.5	7	22.5	0.8	29	20	10	27.5	0.8
10		25	18	8.5	22.5	0.8	29	22	12	27.5	0.8

注：特殊要求可按技术协议供货。 Note: We can offer your specific demand by technology treaty.