



Guang Zhou Nan Cai Electronic CO.,LTD.
<http://www.cgznc.com>



規 格 承 認 書

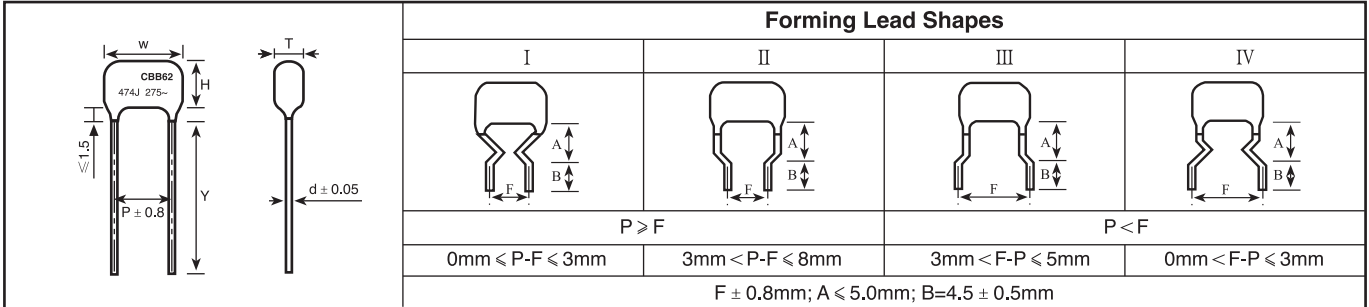
(**SPECIFICATION FOR APPROVAL**)

File No.: Q/BH .TS16949.13TECH1303

Product Name: Metallized polypropylene film A.C. capacitor for capacitive divider
Product Type: C49(CBB62)
Product Code: C49
Customer:
Customer Code:
Issue Date: (V3.0)

电容降压专用金属化聚丙烯膜交流电容器 Metallized polypropylene film A.C. capacitor for capacitive divider

■ 外形图 Outline Drawing



■ 特点

- 专门设计用于与100Vac~240Vac电源串联的电容降压电路应用场合，如电表、LED驱动等。
- 金属化聚丙烯膜
- 自愈性能优异，能承受浪涌电压冲击
- 长期负载下优异的电容容量稳定性
- 阻燃环氧粉末未封装(UL94/V-0)

■ Features

- This is specifically designed for applications in serial with the 100Vac~240Vac main, i.e.: capacitive divider, for example, energy meter, LED driver etc.
- Metallized polypropylene film
- Good self-healing properties,withstanding surge voltage stressing
- Long stability of capacitance
- flame resistant epoxy resin powder coating (UL94/V-0)

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 14579 (IEC60384-17)			
气候类别 Climatic Category	40/085/21			
额定温度 Rated temperature	85℃			
工作温度范围 Operating Temperature Range	-40℃ ~ +85℃			
额定电压 Rated Voltage(U_R)	160Vac, 50/60Hz	230Vac, 50/60Hz	250Vac, 50/60Hz	300Vac, 50/60Hz
最大连续直流电压 Maximum continuous DC voltage	250Vdc	400Vdc	560Vdc	630Vdc
电容量范围 Capacitance Range	0.22 μ F~2.2 μ F	0.033 μ F~4.7 μ F	0.010 μ F~4.0 μ F	0.10 μ F~1.0 μ F
耐电压(引线之间) Voltage Proof (Between Terminals)	400Vdc (2s)	640Vdc (2s)	900Vdc (2s)	1 500Vdc (2s)
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J)、 $\pm 10\%$ (K)、 $\pm 20\%$ (M)			
绝缘电阻 Insulation Resistance	$R \geq 15\ 000\text{M}\Omega$, $C_R \leq 0.33\mu\text{F}$ $RC \geq 5\ 000\text{s}$, $C_R > 0.33\mu\text{F}$ (20℃, 100V, 1min)			
损耗角正切 Dissipation Factor	$\leq 10 \times 10^{-4}$ (1kHz, 20℃) 典型值 Typical value 2×10^{-4}			
	$\leq 20 \times 10^{-4}$ (10kHz, 20℃) 典型值 Typical value 5×10^{-4}			

注：长寿命要求和连续工作请选用275Vac及以上电压。

Note: For long lifetime and continuous working, please choose 275Vac and upwards voltage.



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产品编码说明 Part number system

■ 18位产品代码如下:

The 18 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	4	9								E							

第1~3位	型号代码 C49=CBB62	Digit 1 to 3	Series code C49=CBB62
第4~5位	交流额定电压 C2=160V P5=230V E2=250V P2=275V Q1=300V	Digit 4 to 5	AC rated voltage C2=160V P5=230V E2=250V P2=275V Q1=300V
第6~8位	标称容量 举例: 474=47 x 10 ⁴ pF=0.47μF	Digit 6 to 8	Rated capacitance value For example: 474=47 x 10 ⁴ pF=0.47μF
第9位	容量偏差 J= ± 5% K= ± 10% M= ± 20%	Digit 9	Capacitance tolerance J= ± 5% K= ± 10% M= ± 20%
第10位	引线脚距 P 3=7.5mm 4=10.0mm 6=15.0mm 9=22.5mm A=25.0mm B=27.5mm	Digit 10	Pitch 3=7.5mm 4=10.0mm 6=15.0mm 9=22.5mm A=25.0mm B=27.5mm
第11位	内部特征码	Digit 11	Internal use
第12~15位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code
第16~18位	内部特征码	Digit 16 to 18	Internal use

■ Table1 引线加工和包装代码 Lead form and packaging code

第12位 Digit 12		第13位 Digit 13		第14位 Digit 14		第15位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
F	引线成型 lead kinked	9	F=22.5mm	0	B=4.5mm (the length of B)	0	B的长度偏差 ± 0.5mm B Length tolerance ± 0.5mm
Y	直脚 straight lead "Y" in the figure above	45	说明 explanation 引线长度 4.5mm lead length 4.5mm			0	引线长度偏差 ± 0.5mm Length tolerance ± 0.5mm
第12-15位代码为 "C000" 表示标准的引线长度(20mm~30mm) Digit12-15 code "C000" means standard lead length (20mm~30mm)							



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■ 外形尺寸 Dimensions(mm)

230Vac						
C _R (μF)	W max	H max	T max	P	d	Part number
0.033	10.0	10.5	5.5	7.5	0.6	C49P5333-3E****++
0.047	10.0	10.5	6.5	7.5	0.6	C49P5473-3E****++
0.033	12.0	9.0	5.0	10.0	0.6	C49P5333-4E****++
0.047	12.0	10.0	5.5	10.0	0.6	C49P5473-4E****++
0.068	12.0	11.0	6.0	10.0	0.6	C49P5683-4E****++
0.10	12.0	12.0	7.0	10.0	0.6	C49P5104-4E****++
0.10	17.0	10.5	5.5	15.0	0.6	C49P5104-6E****++
0.15	17.0	11.0	6.5	15.0	0.6	C49P5154-6E****++
0.22	17.0	12.0	7.5	15.0	0.6	C49P5224-6E****++
0.33	17.0	14.5	9.0	15.0	0.6	C49P5334-6E****++
0.39	17.0	14.5	9.5	15.0	0.6	C49P5394-6E****++
0.47	17.0	15.0	10.5	15.0	0.8	C49P5474-6E****++
0.22	23.0	11.0	6.5	20.0	0.8	C49P5224-8E****++
0.33	23.0	12.5	7.5	20.0	0.8	C49P5334-8E****++
0.39	23.0	13.0	8.0	20.0	0.8	C49P5394-8E****++
0.47	23.0	14.5	8.0	20.0	0.8	C49P5474-8E****++
0.56	23.0	15.0	9.0	20.0	0.8	C49P5564-8E****++
0.68	23.0	16.0	9.5	20.0	0.8	C49P5684-8E****++
1.0	23.0	19.0	11.0	20.0	0.8	C49P5105-8E****++
0.33	25.0	13.0	6.5	22.5	0.8	C49P5334-9E****++
0.39	25.0	13.5	7.0	22.5	0.8	C49P5394-9E****++
0.47	25.0	14.0	7.5	22.5	0.8	C49P5474-9E****++
0.56	25.0	15.5	8.5	22.5	0.8	C49P5564-9E****++
0.68	25.0	15.5	9.0	22.5	0.8	C49P5684-9E****++
1.0	25.0	18.0	10.5	22.5	0.8	C49P5105-9E****++
1.5	25.0	21.5	12.5	22.5	0.8	C49P5155-9E****++
1.0	28.0	18.5	9.5	25.0	0.8	C49P5105-AE****++
1.5	28.0	20.5	11.0	25.0	0.8	C49P5155-AE****++
2.0	28.0	22.5	13.0	25.0	0.8	C49P5205-AE****++
2.2	28.0	23.0	13.5	25.0	0.8	C49P5225-AE****++
0.47	30.0	14.5	6.5	27.5	0.8	C49P5474-BE****++
0.56	30.0	15.0	7.0	27.5	0.8	C49P5564-BE****++
0.68	30.0	16.5	7.5	27.5	0.8	C49P5684-BE****++
1.0	30.0	17.0	9.0	27.5	0.8	C49P5105-BE****++
1.5	30.0	20.0	10.5	27.5	0.8	C49P5155-BE****++
2.0	30.0	24.5	11.0	27.5	0.8	C49P5205-BE****++
2.2	30.0	24.5	11.0	27.5	0.8	C49P5225-BE****++
3.0	30.0	27.5	14.0	27.5	0.8	C49P5305-BE****++
3.3	30.0	27.5	14.5	27.5	0.8	C49P5335-BE****++
4.0	30.0	29.0	16.5	27.5	0.8	C49P5405-BE****++
4.7	30.0	31.5	18.0	27.5	0.8	C49P5475-BE****++

250Vac						
C _R (μF)	W max	H max	T max	P	d	Part number
0.010	12.0	8.0	4.0	10.0	0.6	C49E2103-4E****++
0.015	12.0	8.0	5.0	10.0	0.6	C49E2153-4E****++
0.022	12.0	9.0	5.0	10.0	0.6	C49E2223-4E****++
0.033	12.0	10.0	5.5	10.0	0.6	C49E2333-4E****++
0.047	12.0	11.5	6.0	10.0	0.6	C49E2473-4E****++
0.068	12.0	12.5	7.0	10.0	0.6	C49E2683-4E****++
0.068	17.0	10.0	5.5	15.0	0.6	C49E2683-6E****++
0.10	17.0	11.0	6.5	15.0	0.6	C49E2104-6E****++
0.15	17.0	12.0	7.5	15.0	0.6	C49E2154-6E****++
0.22	17.0	13.5	8.5	15.0	0.6	C49E2224-6E****++
0.33	17.0	15.0	10.5	15.0	0.8	C49E2334-6E****++
0.15	23.0	11.0	6.5	20.0	0.8	C49E2154-8E****++
0.22	23.0	12.0	7.5	20.0	0.8	C49E2224-8E****++
0.33	23.0	14.5	8.0	20.0	0.8	C49E2334-8E****++
0.39	23.0	15.0	8.0	20.0	0.8	C49E2394-8E****++
0.47	23.0	16.0	9.5	20.0	0.8	C49E2474-8E****++
0.56	23.0	17.5	10.5	20.0	0.8	C49E2564-8E****++
0.68	23.0	19.5	10.0	20.0	0.8	C49E2684-8E****++
0.22	25.0	13.5	6.5	22.5	0.8	C49E2224-9E****++
0.33	25.0	14.0	7.5	22.5	0.8	C49E2334-9E****++
0.39	25.0	15.5	8.0	22.5	0.8	C49E2394-9E****++
0.47	25.0	15.0	9.0	22.5	0.8	C49E2474-9E****++
0.56	25.0	16.0	9.5	22.5	0.8	C49E2564-9E****++
0.68	25.0	18.0	10.0	22.5	0.8	C49E2684-9E****++
1.0	25.0	20.0	12.0	22.5	0.8	C49E2105-9E****++
0.33	28.0	15.5	6.0	25.0	0.8	C49E2334-AE****++
0.39	28.0	15.0	7.5	25.0	0.8	C49E2394-AE****++
0.47	28.0	16.5	8.0	25.0	0.8	C49E2474-AE****++
0.56	28.0	16.5	8.5	25.0	0.8	C49E2564-AE****++
0.68	28.0	17.0	9.5	25.0	0.8	C49E2684-AE****++
1.0	28.0	19.0	11.5	25.0	0.8	C49E2105-AE****++
1.5	28.0	25.5	12.0	25.0	0.8	C49E2155-AE****++
2.0	28.0	27.0	14.0	25.0	0.8	C49E2205-AE****++
2.2	28.0	28.5	15.0	25.0	0.8	C49E2225-AE****++
3.3	28.0	31.5	18.0	25.0	0.8	C49E2335-AE****++
0.47	30.0	15.5	7.5	27.5	0.8	C49E2474-BE****++
0.56	30.0	16.0	8.0	27.5	0.8	C49E2564-BE****++
0.68	30.0	17.5	9.0	27.5	0.8	C49E2684-BE****++
1.0	30.0	19.5	10.5	27.5	0.8	C49E2105-BE****++
1.5	30.0	24.0	11.5	27.5	0.8	C49E2155-BE****++
2.0	30.0	26.0	13.5	27.5	0.8	C49E2205-BE****++
2.2	30.0	27.5	14.0	27.5	0.8	C49E2225-BE****++
3.0	30.0	29.5	16.5	27.5	0.8	C49E2305-BE****++
3.3	30.0	30.0	17.5	27.5	0.8	C49E2335-BE****++
4.0	30.0	32.0	19.5	27.5	0.8	C49E2405-BE****++

300Vac#						
C _R (μF)	W max	H max	T max	P	d	Part number
0.10	17.0	14.5	9.0	15.0	0.6	C49Q1104-6E****++
0.15	17.0	15.5	10.5	15.0	0.8	C49Q1154-6E****++
0.22	17.0	18.5	12.0	15.0	0.8	C49Q1224-6E****++
0.10	23.0	12.0	7.5	20.0	0.8	C49Q1104-8E****++
0.15	23.0	14.5	9.0	20.0	0.8	C49Q1154-8E****++
0.22	23.0	16.0	10.0	20.0	0.8	C49Q1224-8E****++
0.33	23.0	18.0	12.0	20.0	0.8	C49Q1334-8E****++
0.10	25.0	12.0	7.0	22.5	0.8	C49Q1104-9E****++
0.15	25.0	13.0	8.5	22.5	0.8	C49Q1154-9E****++
0.22	25.0	16.5	9.0	22.5	0.8	C49Q1224-9E****++
0.33	25.0	17.5	11.0	22.5	0.8	C49Q1334-9E****++
0.39	25.0	19.0	11.5	22.5	0.8	C49Q1394-9E****++
0.47	25.0	20.5	12.5	22.5	0.8	C49Q1474-9E****++
0.22	28.0	15.0	8.5	25.0	0.8	C49Q1224-AE****++
0.27	28.0	16.0	9.5	25.0	0.8	C49Q1274-AE****++
0.33	28.0	17.5	10.5	25.0	0.8	C49Q1334-AE****++
0.36	28.0	17.0	10.0	25.0	0.8	C49Q1364-AE****++
0.39	28.0	18.5	11.0	25.0	0.8	C49Q1394-AE****++
0.41	28.0	18.0	11.5	25.0	0.8	C49Q1414-AE****++
0.43	28.0	18.0	11.0	25.0	0.8	C49Q1434-AE****++
0.45	28.0	19.0	11.5	25.0	0.8	C49Q1454-AE****++
0.47	28.0	20.5	11.5	25.0	0.8	C49Q1474-AE****++
0.49	28.0	20.5	12.0	25.0	0.8	C49Q1494-AE****++
0.51	28.0	20.0	12.0	25.0	0.8	C49Q1514-AE****++
0.56	28.0	21.5	12.5	25.0	0.8	C49Q1564-AE****++
0.68	28.0	22.0	14.0	25.0	0.8	C49Q1684-AE****++
0.75	28.0	23.5	14.5	25.0	0.8	C49Q1754-AE****++
0.82	28.0	24.0	14.5	25.0	0.8	C49Q1824-AE****++
1.0	28.0	26.0	16.5	25.0	0.8	C49Q1105-AE****++

160Vac						
C _R (μF)	W max	H max	T max	P	d	Part number
0.22	13.0	11.0	6.0	10.0	0.6	C49C2224-4E****++
0.27	13.0	11.5	6.5	10.0	0.6	C49C2274-4E****++
0.33	13.0	12.5	7.0	10.0	0.6	C49C2334-4E****++
0.39	13.0	13.0	7.5	10.0	0.6	C49C2394-4E****++
0.47	13.0	13.5	8.5	10.0	0.6	C49C2474-4E****++
0.56	13.0	14.0	9.0	10.0	0.6	C49C2564-4E****++
0.47	17.5	12.0	7.0	15.0	0.6	C49C2474-6E****++
0.56	17.5	12.5	7.5	15.0	0.6	C49C2564-6E****++
0.68	17.5	13.0	8.0	15.0	0.6	C49C2684-6E****++
0.82	17.5	13.5	8.5	15.0	0.6	C49C2824-6E****++
1.0	17.5	14.5	9.5	15.0	0.6	C49C2105-6E****++
1.2	17.5	16.5	9.5	15.0	0.8	C49C2125-6E****++
1.5	17.5	17.5	10.5	15.0	0.8	C49C2155-6E****++
1.8	17.5	18.5	11.5	15.0	0.8	C49C2185-6E****++
2.0	17.5	19.0	12.5	15.0	0.8	C49C2205-6E****++
2.2	17.5	19.5	13.0	15.0	0.8	C49C2225-6E****++

备注: 1. “-”表示容量偏差。“-”=capacitance tolerance code, J=±5%, K=±10%, M=±20%
 2. “****”表示引线形状和包装代码(见table 1)。“****”=lead form and packing code(refer to table 1)
 3. “#”当额定电压为275Vac时,第4~5位是P2。“#”when the rated voltage is 275Vac,the digit 4~5 is P2.