

Films Capacitors

Double Sided Metallized Polypropylene Film Capacitor

Series/Type: MMKP82(BOX)

Ordering code: C82*

Date: September 2024

Version: 01

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■ Features

- Double sided Metallized polypropylene film
- Low loss and small inherent temperature rise
- Negative temperature coefficient of capacitance
- Excellent active and passive flame resistant abilities

■ Typical Applications

- Widely used in high voltage, high frequency and pulse circuits
- Electronic ballasts and compact lamps
- Snubber and SCR commutating circuits

■ Reference Standards

- GB/T 10190(IEC 60384-16)
- UL 810

■ Specifications

- Capacitance range 0.001μF...3.9μF
- Capacitance tolerance ±2%(G), ±3%(H), ±5%(J), ±10%(K), ±20%(M)
- Rated Voltage 250V, 400V, 450V, 630V, 1000V, 1600V, 2000V
- Loss factor(tanδ)at 1KHz ≤2.0×10⁻³
- Maximum pulse rise time(dv/dt)

U _R (V)	dv/dt(v/μs)				
	P=7.5	P=10	P=15	P=22.5	P=27.5
250	1200	1000	550	250	200
400	1800	1500	900	500	300
630	3200	3200	2500	1500	900
1000	6000	6000	3300	2100	1000
1600	--	--	6000	3000	2000
2000	--	--	10000	5000	2200

- Climatic category 40/105/56
- Operating temperature range -40°C...105°C
(85°C to 105°C, decreasing factor 1.25% per °C for U_R)
(75°C to 105°C, decreasing factor 1.35% per °C for U_R)
- Storage temperature Range -40°C...105°C

■ Test data

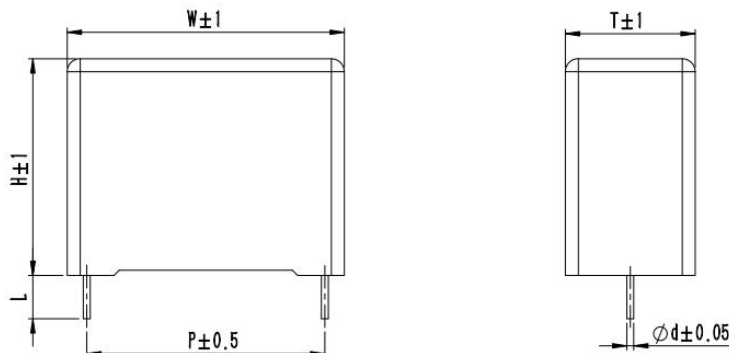
- Capacitance measurement C_R±2%(G); C_R±3%(H); C_R±5%(J); C_R±10%(K)
- Test voltage between terminals 1.6U_R@5S
- Insulation resistance R≥100,000MΩ, C_R≤0.33μF(20°C, 100V, 60S)
R•C_R≥30,000S, C_R>0.33μF(20°C, 100V, 60S)
- Loss factor(tanδ)at 1KHz 20×10⁻⁴

■ **Structure of ordering code**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	8	2	3	1	1	2	2	5	K	6	3	5	L	0	1	G	1
A			B			C			D	E	F		G	H	I	J	K

- A: Capacitor series
C82=MMKP82(BOX)
- B: Rated voltage
如: 631=63*10¹=630V
- C: Rated capacitance
如: 224=22*10⁴=220000pF=0.22μF
- D: Capacitance tolerance
±2%(G), ±3%(H), ±5%(J), ±10%(K), ±20%(M)
- E: Pitch
2=5.0mm 3=7.5mm 4=10mm 5=12.5mm 6=15mm 9=22.5mm
B=27.5mm D=32.5mm F=37.5mm M=52.5mm
- F: Lead length
35=3.5mm E5=15mm N2=22mm S6=36mm
- G: Pin shape
L=Straight foot R=Right foot K=K foot N=Bend inward foot
W=Bend outside foot
- H: Product features
0=Ordinary 1=Double 85 2=Low noise 3=Low power
- I: Raw material
0=No halogen 1=halogen
- J: Product colour
Y=Yellow G=Grey B=Black U=Blue W=white R=Red E=Green
- H: Inner use

■ **Outline Drawing(Specific according to customer requirements)**



Film Capacitors	C82*
Double Sided Metallized Polypropylene Film Capacitor	MMKP82

Dimensions(mm)

Ur: 250V.dc(180V.ac)							Ur: 250V.dc(180V.ac)						
Cr(μF)	W	H	T	d	P	Part number	Cr(μF)	W	H	T	d	P	Part number
0.0010	10	9	4	0.6	7.5		0.18	18	13.5	7.5	0.8	15	
0.0082	10	9	4	0.6	7.5		0.22	18	13.5	7.5	0.8	15	
0.010	10	9	4	0.6	7.5		0.22	26	15	6	0.8	22.5	
0.012	10	9	4	0.6	7.5		0.27	18	14.5	8.5	0.8	15	
0.015	10	9	4	0.6	7.5		0.27	26	15	6	0.8	22.5	
0.018	10	9	4	0.6	7.5		0.33	18	16	10	0.8	15	
0.022	10	9	4	0.6	7.5		0.33	26	15	6	0.8	22.5	
0.027	10	11	5	0.6	7.5		0.39	18	16	10	0.8	15	
0.027	13	9	4	0.6	10		0.39	26.5	16.5	7	0.8	22.5	
0.033	10	11	5	0.6	7.5		0.47	26.5	16.5	7	0.8	22.5	
0.033	13	9	4	0.6	10		0.56	26.5	17	8.5	0.8	22.5	
0.039	10	12	6	0.6	7.5		0.68	26	19	10	0.8	22.5	
0.039	13	9	4	0.6	10		0.82	26	19	10	0.8	22.5	
0.047	10	12	6	0.6	7.5		0.82	31	18	9	0.8	27.5	
0.047	13	11	5	0.6	10		1.0	26	22	12	0.8	22.5	
0.056	13	11	5	0.6	10		1.0	31	20	11	0.8	27.5	
0.068	13	12	6	0.6	10		1.2	31	20	11	0.8	27.5	
0.068	18	11	5	0.8	15		1.5	31	22	13	0.8	27.5	
0.082	13	11	5	0.6	10		1.8	31.5	24.5	15	0.8	27.5	
0.10	18	11	5	0.8	15		2.2	31.5	24.5	15	0.8	27.5	
0.12	18	12	6	0.8	15		2.7	31	33	18	0.8	27.5	
0.15	18	12	6	0.8	15		3.3	31	33	18	0.8	27.5	
0.15	18	12	6	0.8	15		3.9	31	33	18	0.8	27.5	
Ur: 400V.dc(250V.ac)							Ur: 400V.dc(250V.ac)						
0.0027	10	9	4	0.6	7.5		0.012	13	9	4	0.6	10	
0.0033	10	9	4	0.6	7.5		0.015	10	11	5	0.6	7.5	
0.0039	10	9	4	0.6	7.5		0.015	13	9	4	0.6	10	
0.0047	10	9	4	0.6	7.5		0.018	10	11	5	0.6	7.5	
0.0056	10	9	4	0.6	7.5		0.018	13	9	4	0.6	10	
0.0068	10	9	4	0.6	7.5		0.022	10	12	6	0.6	7.5	
0.0082	10	9	4	0.6	7.5		0.022	13	9	4	0.6	10	
0.010	10	9	4	0.6	7.5		0.027	10	12	6	0.6	7.5	
0.010	13	9	4	0.6	10		0.027	13	11	5	0.6	10	
0.012	10	9	4	0.6	7.5		0.033	13	11	5	0.6	10	

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Dimensions(mm)

Ur: 400V.dc(250V.ac)							Ur: 400V.dc(250V.ac)						
Cr(μF)	W	H	T	d	P	Part number	Cr(μF)	W	H	T	d	P	Part number
0.033	18	11	5	0.8	15		0.27	18	19	11	0.8	15	
0.039	13	12	6	0.6	10		0.27	26.5	17	8.5	0.8	22.5	
0.039	18	11	5	0.8	15		0.33	26.5	17	8.5	0.8	22.5	
0.047	13	12	6	0.6	10		0.39	26	19	10	0.8	22.5	
0.047	18	11	5	0.8	15		0.39	31	18	9	0.8	27.5	
0.056	18	11	5	0.8	15		0.47	26	19	10	0.8	22.5	
0.068	18	12	6	0.8	15		0.47	31	18	9	0.8	27.5	
0.082	18	12	6	0.8	15		0.56	26	22	12	0.8	22.5	
0.10	18	13.5	7.5	0.8	15		0.56	31	20	11	0.8	27.5	
0.12	18	13.5	7.5	0.8	15		0.68	26	22	12	0.8	22.5	
0.12	26	15	6	0.8	22.5		0.68	31	20	11	0.8	27.5	
0.15	18	14.5	8.5	0.8	15		0.82	31	22	13	0.8	27.5	
0.15	26	15	6	0.8	22.5		1.0	31.5	24.5	15	0.8	27.5	
0.18	18	16	10	0.8	15		1.2	31.5	24.5	15	0.8	27.5	
0.18	26	15	6	0.8	22.5		1.5	31	33	18	0.8	27.5	
0.22	18	16	10	0.8	15		1.8	31	33	18	0.8	27.5	
0.22	26.5	16.5	7	0.8	22.5								
Ur: 630V.dc(400V.ac)							Ur: 630V.dc(400V.ac)						
0.00068	10	9	4	0.6	7.5		0.0082	10	11	5	0.6	7.5	
0.00082	10	9	4	0.6	7.5		0.0082	13	9	4	0.6	10	
0.0010	10	9	4	0.6	7.5		0.010	10	12	6	0.6	7.5	
0.0012	10	9	4	0.6	7.5		0.010	13	11	5	0.6	10	
0.0015	10	9	4	0.6	7.5		0.010	18	11	5	0.8	15	
0.0018	10	9	4	0.6	7.5		0.012	10	12	6	0.6	7.5	
0.0022	10	9	4	0.6	7.5		0.012	13	11	5	0.6	10	
0.0033	10	9	4	0.6	7.5		0.012	18	11	5	0.8	15	
0.0039	10	9	4	0.6	7.5		0.015	13	12	6	0.6	10	
0.0039	13	9	4	0.6	10		0.015	18	11	5	0.8	15	
0.0047	10	9	4	0.6	7.5		0.018	13	12	6	0.6	10	
0.0047	13	9	4	0.6	10		0.018	18	11	5	0.8	15	
0.0056	10	9	4	0.6	7.5		0.022	18	11	5	0.8	15	
0.0056	13	9	4	0.6	10		0.027	18	11	5	0.8	15	
0.0068	10	11	5	0.6	7.5		0.033	18	12	6	0.8	15	
0.0068	13	9	4	0.6	10		0.039	18	12	6	0.8	15	

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Dimensions(mm)

UR: 630V.dc(400V.ac)							UR: 630V.dc(400V.ac)						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.047	18	12	6	0.8	15		0.18	31	18	9	0.8	27.5	
0.047	26	15	6	0.8	22.5		0.22	26	19	10	0.8	22.5	
0.056	18	13.5	7.5	0.8	15		0.22	31	18	9	0.8	27.5	
0.056	26	15	6	0.8	22.5		0.27	26	22	12	0.8	22.5	
0.068	18	14.5	8.5	0.8	15		0.27	31	18	9	0.8	27.5	
0.068	26	15	6	0.8	22.5		0.33	26	22	12	0.8	22.5	
0.082	18	14.5	8.5	0.8	15		0.33	21	20	11	0.8	27.5	
0.082	26	15	6	0.8	22.5		0.39	26	22	12	0.8	22.5	
0.10	18	16	10	0.8	15		0.39	21	20	11	0.8	27.5	
0.10	26	15	6	0.8	22.5		0.47	31	22	13	0.8	27.5	
0.12	18	19	11	0.8	15		0.56	31	22	13	0.8	27.5	
0.12	26.5	16.5	7	0.8	22.5		0.68	31.5	24.5	15	0.8	27.5	
0.15	26.5	17	8.5	0.8	22.5		0.82	31.5	25.5	16	0.8	27.5	
0.15	31	18	9	0.8	27.5		1.0	31	33	18	0.8	27.5	
0.18	26.5	17	8.5	0.8	22.5		1.2	31	33	18	0.8	27.5	
UR: 1000V.dc(600V.ac)							UR: 1000V.dc(600V.ac)						
0.00047	10	9	4	0.6	7.5		0.0082	18	11	5	0.8	15	
0.00056	10	9	4	0.6	7.5		0.010	18	11	5	0.8	15	
0.00068	10	9	4	0.6	7.5		0.012	18	11	5	0.8	15	
0.00082	10	9	4	0.6	7.5		0.015	18	11	5	0.8	15	
0.0010	10	9	4	0.6	7.5		0.018	18	13.5	7.5	0.8	15	
0.0010	13	9	4	0.6	10		0.022	18	13.5	7.5	0.8	15	
0.0015	10	11	5	0.6	7.5		0.027	18	14.5	8.5	0.8	15	
0.0015	13	9	4	0.6	10		0.027	26	15	6	0.8	22.5	
0.0022	10	11	5	0.6	7.5		0.033	18	14.5	8.5	0.8	15	
0.0022	13	9	4	0.6	10		0.033	26	15	6	0.8	22.5	
0.0027	10	12	6	0.6	7.5		0.039	18	16	10	0.8	15	
0.0027	13	9	4	0.6	10		0.039	26	15	6	0.8	22.5	
0.0033	10	12	6	0.6	7.5		0.047	18	19	11	0.8	15	
0.0033	13	9	4	0.6	10		0.047	26.5	16.5	7	0.8	22.5	
0.0039	13	11	5	0.6	10		0.056	26.5	16.5	7	0.8	22.5	
0.0047	13	11	5	0.6	10		0.068	26.5	17	8.5	0.8	22.5	
0.0056	13	12	6	0.6	10		0.082	26	19	10	0.8	22.5	
0.0068	13	12	6	0.6	10		0.10	26	19	10	0.8	22.5	

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Dimensions(mm)

U _R : 1000V.dc(600V.ac)							U _R : 1000V.dc(600V.ac)						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.10	31	18	9	0.8	27.5		0.22	31	22	13	0.8	27.5	
0.12	26	22	12	0.8	22.5		0.27	31.5	24.5	15	0.8	27.5	
0.12	31	20	11	0.8	27.5		0.33	31.5	25.5	16	0.8	27.5	
0.15	26	22	12	0.8	22.5		0.39	31	33	18	0.8	27.5	
0.15	31	20	11	0.8	27.5		0.47	31	33	18	0.8	27.5	
0.18	31	22	13	0.8	27.5								
U _R : 1600V.dc(650V.ac)							U _R : 1600V.dc(650V.ac)						
0.00068	18	11	5	0.8	15		0.027	18	16	10	0.8	15	
0.00082	18	11	5	0.8	15		0.027	26	15	6	0.8	22.5	
0.0010	18	11	5	0.8	15		0.033	18	19	11	0.8	15	
0.0012	18	11	5	0.8	15		0.033	26.5	16.5	7	0.8	22.5	
0.0015	18	11	5	0.8	15		0.039	26.5	17	8.5	0.8	22.5	
0.0018	18	11	5	0.8	15		0.039	31	18	9	0.8	27.5	
0.0022	18	11	5	0.8	15		0.047	26	19	10	0.8	22.5	
0.0033	18	11	5	0.8	15		0.047	31	18	9	0.8	27.5	
0.0039	18	11	5	0.8	15		0.056	26	19	10	0.8	22.5	
0.0047	18	11	5	0.8	15		0.056	31	18	9	0.8	27.5	
0.0056	18	11	5	0.8	15		0.068	26	22	12	0.8	22.5	
0.0068	18	11	5	0.8	15		0.068	31	18	9	0.8	27.5	
0.0082	18	12	6	0.8	15		0.082	26	22	12	0.8	22.5	
0.010	18	12	6	0.8	15		0.082	31	20	11	0.8	27.5	
0.012	18	13.5	7.5	0.8	15		0.10	31	20	11	0.8	27.5	
0.015	18	13.5	7.5	0.8	15		0.12	31	22	13	0.8	27.5	
0.015	26	15	6	0.8	22.5		0.15	31.5	24.5	15	0.8	27.5	
0.018	18	14.5	8.5	0.8	15		0.18	31.5	24.5	15	0.8	27.5	
0.018	26	15	6	0.8	22.5		0.22	31	33	18	0.8	27.5	
0.022	18	14.5	8.5	0.8	15		0.27	31	33	18	0.8	27.5	
0.022	26	15	6	0.8	22.5		0.33	31	33	18	0.8	27.5	

Film Capacitors	C82*
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Dimensions(mm)

U _R : 2000V.dc(700V.ac)							U _R : 2000V.dc(700V.ac)						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.00022	18	11	5	0.8	15		0.0068	18	13.5	7.5	0.8	15	
0.00027	18	11	5	0.8	15		0.0068	26	15	6	0.8	22.5	
0.00033	18	11	5	0.8	15		0.0082	18	14.5	8.5	0.8	15	
0.00039	18	11	5	0.8	15		0.0082	26	15	6	0.8	22.5	
0.00047	18	11	5	0.8	15		0.010	18	16	10	0.8	15	
0.00056	18	11	5	0.8	15		0.010	26	15	6	0.8	22.5	
0.00068	18	11	5	0.8	15		0.012	18	16	10	0.8	15	
0.00082	18	11	5	0.8	15		0.012	26	15	6	0.8	22.5	
0.0010	18	11	5	0.8	15		0.015	18	19	11	0.8	15	
0.0010	26	15	6	0.8	22.5		0.015	26.5	16.5	7	0.8	22.5	
0.0012	18	11	5	0.8	15		0.018	26.5	16.5	7	0.8	22.5	
0.0012	26	15	6	0.8	22.5		0.022	26.5	17	8.5	0.8	22.5	
0.0015	18	11	5	0.8	15		0.022	31	18	9	0.8	27.5	
0.0015	26	15	6	0.8	22.5		0.027	26	19	10	0.8	22.5	
0.0018	18	11	5	0.8	15		0.027	31	18	9	0.8	27.5	
0.0018	26	15	6	0.8	22.5		0.033	26	19	10	0.8	22.5	
0.0022	18	11	5	0.8	15		0.033	31	18	9	0.8	27.5	
0.0022	26	15	6	0.8	22.5		0.039	26	22	12	0.8	22.5	
0.0027	18	11	5	0.8	15		0.039	31	20	11	0.8	27.5	
0.0027	26	15	6	0.8	22.5		0.017	26	22	12	0.8	22.5	
0.0033	18	12	6	0.8	15		0.047	31	20	11	0.8	27.5	
0.0033	26	15	6	0.8	22.5		0.056	31	22	13	0.8	27.5	
0.0039	18	12	6	0.8	15		0.068	31	22	13	0.8	27.5	
0.0039	26	15	6	0.8	22.5		0.082	31.5	24.5	15	0.8	27.5	
0.0047	18	12	6	0.8	15		0.10	31.5	25.5	16	0.8	27.5	
0.0047	26	15	6	0.8	22.5		0.12	31	33	18	0.8	27.5	
0.0056	18	13.5	7.5	0.8	15		0.15	31	33	18	0.8	27.5	
0.0056	26	15	6	0.8	22.5								