

Metallized Polycarbonate Capacitors

Type MKP ... g/ga

Applications

- DC and AC voltages
- Professional Applications
- Tuned circuits, filters, timers
- Integrators, S/H
- Coupling / decoupling, audio
- Instrumentation

Main Characteristics

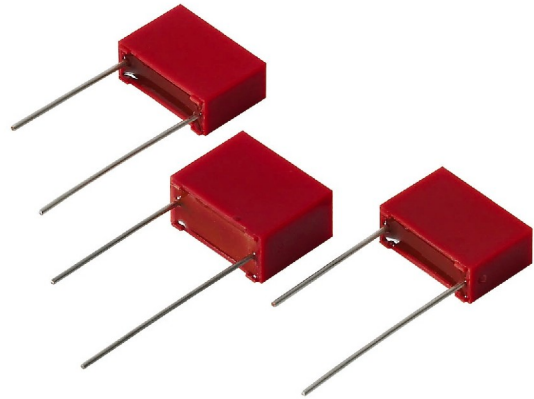
- Dry film-foil based technology
- Rated Voltages: 63 VDC to 630 VDC
- Climatic category: 40/100/56
- Tolerances $\pm 10\%$
and on request: $\pm 5\%$, $\pm 2\%$, $\pm 1\%$
- Class 1 compliant

Design

- Metallized Polycarbonate Film
- Polyester exterior wrap
- Axial tinned-copper leads
-insulated leads available on request
- Resin-epoxy end-seal (UL-V0)

Installation

- Position is irrelevant



MKP....g

1.0 Rated Values and Operational Data

DC	Nominal Voltage U_R [VDC]	$\leq 85^\circ\text{C}$	1	63	100		250	400	630
	Category Voltage U_C [VDC] = $0.8 \times U_R$	$\leq 85^\circ\text{C}$	1	50	80		200	320	500
	Test Voltage U_T [VDC] = $0.8 \times U_R$	1 min / 23°C	1	100	160		400	640	1000
AC	Nominal Voltage U_N -50/60 Hz [VAC]	$\leq 85^\circ\text{C}$	1	40	63		120	200	(275)
	Category Voltage U_C	$\leq 100^\circ\text{C}$	1	35	50		75	160	200

Leclanché Capacitors for Critical Applications and Extreme Environments

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Metallized Polycarbonate Capacitors

Type MKP ... g/ga

2.0 Capacitance Range

Cn =>	1.0 nF	33 nF	68 nF	1.5 μF	3.3 μF	10 μF			33 μF
63 VDC									
100 VDC									
250 VDC									
400 VDC									
630 VDC									

3.0 Characteristics

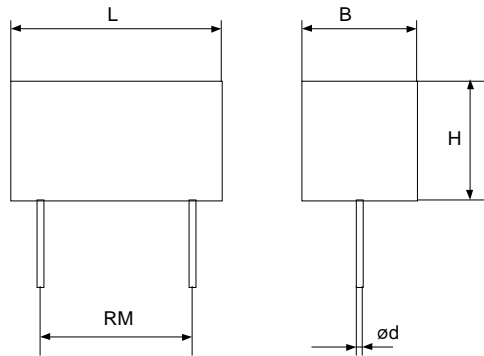
			Min	Typ	Max
Dissipation Factor	tg δ	≤ 1 μF		9 ... 12	30 x 10 ⁻⁴
		> 1 μF		15 ... 25	50 x 10 ⁻⁴
Insulation resistance 1min at 23°C	R _i [MOhms]	≤ 0.33 μF	≤ 100 V: 10V	15000	30000
			> 100 V: 100 V	30000	60000
Time Constant 1min at 23°C	R _i C [s]	> 0.33 μF	≤ 100 V: 10V	5000	10000
			> 100 V: 100 V	10000	20000
Temperature Coefficient	α _c [ppm]		- 30 ... +80°C	+ 40	+ 70
Long term Stability	ΔC / C [%]		2 years, ≤ 50% HR, ≤ 40°C		-0.5 ... +1

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5.0 Dimensions:

This series is delivered with radial leads. For axial leads, please consult the MKP...d series.



D max [mm]	13	18	26.5	31.5	42
d [mm]	10	15	22.5	27.5	37.5

ø d [mm]	
0.6	B ≤ 4 mm
0.8	B > 4 mm
1.0	RM 37.5 mm

Capacitors are delivered in bulk. Taped product available on demand.

Metallized Polycarbonate Capacitors
Type MKP ... g/ga

MKP ... g 63 VDC								
B4F6	Type	Cn	Dimensions					
Pos.		[μ F]	Case	B [mm]	H [mm]	L [mm]	\varnothing leads[mm]	Pitch [mm]
1	MKP 6-168 g K	0.068	D	3.5	8.5	13.0	0.6	10.00
2	MKP 6-182 g K	0.082	D	3.5	8.5	13.0	0.6	10.00
3	MKP 6-010 g K	0.10	D	3.5	8.5	13.0	0.6	10.00
4	MKP 6-012 g K	0.12	E	4.0	9.0	13.0	0.6	10.00
5	MKP 6-015 g K	0.15	E	4.0	9.0	13.0	0.6	10.00
6	MKP 6-018 g K	0.18	F	5.0	10.5	13.0	0.8	10.00
7	MKP 6-022 g K	0.22	F	5.0	10.5	13.0	0.8	10.00
8	MKP 6-027 g K	0.27	F	5.0	10.5	13.0	0.8	10.00
9	MKP 6-033 g K	0.33	F	5.0	10.5	13.0	0.8	10.00
10	MKP 6-039 g K	0.39	F	5.0	10.5	13.0	0.8	10.00
11	MKP 6-047 g K	0.47	G	6.0	11.5	13.0	0.8	10.00
12	MKP 6-056 g K	0.56	G	6.0	11.5	13.0	0.8	10.00
13	MKP 6-068 g K	0.68	H	5.5	11.0	18.0	0.8	15.00
14	MKP 6-082 g K	0.82	I	6.5	12.5	18.0	0.8	15.00
15	MKP 6-1.0 g K	1.00	I	6.5	12.5	18.0	0.8	15.00
16	MKP 6-1.2 g K	1.20	I	6.5	12.5	18.0	0.8	15.00
17	MKP 6-1.5 g K	1.50	J	8.5	14.5	18.0	0.8	15.00
18	MKP 6-1.8 g K	1.80	J	8.5	14.5	18.0	0.8	15.00
19	MKP 6-2.2 g K	2.20	J	8.5	14.5	18.0	0.8	15.00
20	MKP 6-2.7 g K	2.70	K	7.0	15.5	26.5	0.8	22.50
21	MKP 6-3.3 g K	3.30	K	7.0	15.5	26.5	0.8	22.50
22	MKP 6-3.9 g K	3.90	L	8.5	18.0	26.5	0.8	22.50
23	MKP 6-4.7 g K	4.70	L	8.5	18.0	26.5	0.8	22.50
24	MKP 6-5.6 g K	5.60	M	10.5	19.0	26.5	0.8	22.50
25	MKP 6-6.8 g K	6.80	M	10.5	19.0	26.5	0.8	22.50
26	MKP 6-8.2 g K	8.20	M	10.5	19.0	26.5	0.8	22.50
27	MKP 6-10 g K	10.00	N	11.5	20.5	31.5	0.8	27.50
28	MKP 6-12 g K	12.00	N	11.5	20.5	31.5	0.8	27.50
29	MKP 6-15 g K	15.00	O	14.0	24.0	31.5	0.8	27.50
30	MKP 6-18 g K	18.00	O	14.0	24.0	31.5	0.8	27.50
31	MKP 6-22 g K	22.00		20.0	33.5	42.0	1.0	37.50

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Type MKP ... g/ga
MKP ... g 100

B4F6	Type	Cn [μF]	Dimensions					
			Case	B [mm]	H [mm]	L [mm]	∅ leads [mm]	Pitch [mm]
1	MKP 10-133 g K	0.033	D	3.5	8.5	13.0	0.6	10.00
2	MKP 10-139 g K	0.039	D	3.5	8.5	13.0	0.6	10.00
3	MKP 10-147 g K	0.047	D	3.5	8.5	13.0	0.6	10.00
4	MKP 10-156 g K	0.056	E	4.0	9.0	13.0	0.6	10.00
5	MKP 10-168 g K	0.068	E	4.0	9.0	13.0	0.6	10.00
6	MKP 10-182 g K	0.082	E	4.0	9.0	13.0	0.6	10.00
7	MKP 10-010 g K	0.10	E	4.0	9.0	13.0	0.6	10.00
8	MKP 10-012 g K	0.12	F	5.0	10.5	13.0	0.8	10.00
9	MKP 10-015 g K	0.15	F	5.0	10.5	13.0	0.8	10.00
10	MKP 10-018 g K	0.18	G	6.0	11.5	13.0	0.8	10.00
11	MKP 10-022 g K	0.22	G	6.0	11.5	13.0	0.8	10.00
	MKP 10-027 g K	0.27	H	5.5	11.0	18.0	0.8	15.00
13	MKP 10-033 g K	0.33	H	5.5	11.0	18.0	0.8	15.00
14	MKP 10-039 g K	0.39	I	6.5	12.5	18.0	0.8	15.00
15	MKP 10-047 g K	0.47	I	6.5	12.5	18.0	0.8	15.00
16	MKP 10-056 g K	0.56	I	6.5	12.5	18.0	0.8	15.00
17	MKP 10-068 g K	0.68	I	6.5	12.5	18.0	0.8	15.00
18	MKP 10-082 g K	0.82	J	8.5	14.5	18.0	0.8	15.00
19	MKP 10-1.0 g K	1.00	J	8.5	14.5	18.0	0.8	15.00
20	MKP 10-1.2 g K	1.20	K	7.0	15.5	26.5	0.8	22.50
21	MKP 10-1.5 g K	1.50	K	7.0	15.5	26.5	0.8	22.50
22	MKP 10-1.8 g K	1.80	K	7.0	15.5	26.5	0.8	22.50
23	MKP 10-2.2 g K	2.20	L	8.5	18.0	26.5	0.8	22.50
24	MKP 10-2.7 g K	2.70	M	10.5	19.0	26.5	0.8	22.50
25	MKP 10-3.3 g K	3.30	M	10.5	19.0	26.5	0.8	22.50
26	MKP 10-3.9 g K	3.90	N	11.5	20.5	31.5	0.8	27.50
27	MKP 10-4.7 g K	4.70	N	11.5	20.5	31.5	0.8	27.50
28	MKP 10-5.6 g K	5.60	O	14.0	24.0	31.5	0.8	27.50
29	MKP 10-6.8 g K	6.80	O	14.0	24.0	31.5	0.8	27.50
30	MKP 10-8.2 g K	8.20	O	14.0	24.0	31.5	0.8	27.50
31	MKP 10-10 g K	10.00	O	14.0	24.0	31.5	0.8	27.50
32	MKP 10-12 g K	12.00	R	20.0	33.5	42.0	1.0	37.50
33	MKP 10-15 g K	15.00	R	20.0	33.5	42.0	1.0	37.50
34	MKP 10-18 g K	18.00	R	20.0	33.5	42.0	1.0	37.50
35	MKP 10-22 g K	22.00	R	20.0	33.5	42.0	1.0	37.50

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Metallized Polycarbonate Capacitors
Type MKP ... g/ga
MKP ... g 250 VDC

B4F6	Type	Cn [μF]	Dimensions					
			Case	B [mm]	H [mm]	L [mm]	∅ lewads[mm]	h [mm]
1	MKP 25-210 g K	0.0010	D	3.5	8.5	13.0	0.6	10.00
2	MKP 25-215 g K	0.0015	D	3.5	8.5	13.0	0.6	10.00
3	MKP 25-222 g K	0.0022	D	3.5	8.5	13.0	0.6	10.00
4	MKP 25-233 g K	0.0033	D	3.5	8.5	13.0	0.6	10.00
5	MKP 25-247 g K	0.0047	D	3.5	8.5	13.0	0.6	10.00
6	MKP 25-268 g K	0.0068	D	3.5	8.5	13.0	0.6	10.00
7	MKP 25-110 g K	0.010	D	3.5	8.5	13.0	0.6	10.00
8	MKP 25-112 g K	0.012	D	3.5	8.5	13.0	0.6	10.00
9	MKP 25-115 g K	0.015	D	3.5	8.5	13.0	0.6	10.00
10	MKP 25-118 g K	0.018	D	3.5	8.5	13.0	0.6	10.00
11	MKP 25-122 g K	0.022	D	3.5	8.5	13.0	0.6	10.00
12	MKP 25-127 g K	0.027	E	4.0	9.0	13.0	0.6	10.00
13	MKP 25-133 g K	0.033	E	4.0	9.0	13.0	0.6	10.00
14	MKP 25-139 g K	0.039	E	4.0	9.0	13.0	0.6	10.00
15	MKP 25-147 g K	0.047	F	5.0	10.5	13.0	0.8	10.00
16	MKP 25-156 g K	0.056	F	5.0	10.5	13.0	0.8	10.00
17	MKP 25-168 g K	0.068	F	5.0	10.5	13.0	0.8	10.00
18	MKP 25-182 g K	0.082	H	5.5	11.0	18.0	0.8	15.00
19	MKP 25-010 g K	0.10	H	5.5	11.0	18.0	0.8	15.00
20	MKP 25-012 g K	0.12	H	5.5	11.0	18.0	0.8	15.00
21	MKP 25-015 g K	0.15	H	5.5	11.0	18.0	0.8	15.00
22	MKP 25-018 g K	0.18	I	6.5	12.5	18.0	0.8	15.00
23	MKP 25-022 g K	0.22	I	6.5	12.5	18.0	0.8	15.00
24	MKP 25-027 g K	0.27	J	8.5	14.5	18.0	0.8	15.00
25	MKP 25-033 g K	0.33	J	8.5	14.5	18.0	0.8	15.00
26	MKP 25-039 g K	0.39	K	7.0	15.5	26.5	0.8	22.50
27	MKP 25-047 g K	0.47	K	7.0	15.5	26.5	0.8	22.50
28	MKP 25-056 g K	0.56	L	8.5	18.0	26.5	0.8	22.50
29	MKP 25-068 g K	0.68	L	8.5	18.0	26.5	0.8	22.50
30	MKP 25-082 g K	0.82	M	10.5	19.0	26.5	0.8	22.50
31	MKP 25-1.0 g K	1.00	M	10.5	19.0	26.5	0.8	22.50
32	MKP 25-1.2 g K	1.20	N	11.5	20.5	31.5	0.8	27.50
33	MKP 25-1.5 g K	1.50	N	11.5	20.5	31.5	0.8	27.50
34	MKP 25-1.8 g K	1.80	O	14.0	24.0	31.5	0.8	27.50
35	MKP 25-2.2 g K	2.20	O	14.0	24.0	31.5	0.8	27.50
36	MKP 25-2.7 g K	2.70	P	18.0	27.5	31.5	0.8	27.50
37	MKP 25-3.3 g K	3.30	P	18.0	27.5	31.5	0.8	27.50
38	MKP 25-3.9 g K	3.90	Q	18.0	29.0	42.0	1.0	37.50
39	MKP 25-4.7 g K	4.70	Q	18.0	29.0	42.0	1.0	37.50
40	MKP 25-5.6 g k	5.60	R	20.0	33.5	42.0	1.0	37.50
41	MKP 25-6.8 g K	6.80	R	20.0	33.5	42.0	1.0	37.50

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Metallized Polycarbonate Capacitors

Type MKP ... g/ga

MKP... g 400 VDC

B4F6 Pos.	Type	Cn [μF]	Case	Dimensions				
				B [mm]	H [mm]	L [mm]	Ø leads mm	Pitch [mm]
				1	2	3	4	5.00
1	MKP 40-210 g K	0.0010	D	3.5	8.5	13.0	0.6	10.00
2	MKP 40-215 g K	0.0015	D	3.5	8.5	13.0	0.6	10.00
3	MKP 40-222 g K	0.0022	D	3.5	8.5	13.0	0.6	10.00
4	MKP 40-233 g K	0.0033	D	3.5	8.5	13.0	0.6	10.00
5	MKP 40-247 g K	0.0047	D	3.5	8.5	13.0	0.6	10.00
6	MKP 40-268 g K	0.0068	D	3.5	8.5	13.0	0.6	10.00
7	MKP 40-110 g K	0.010	E	4.0	9.0	13.0	0.6	10.00
8	MKP 40-112 g K	0.012	F	5.0	10.5	13.0	0.8	10.00
9	MKP 40-115 g K	0.015	F	5.0	10.5	13.0	0.8	10.00
10	MKP 40-118 g K	0.018	F	5.0	10.5	13.0	0.8	10.00
11	MKP 40-122 g K	0.022	F	5.0	10.5	13.0	0.8	10.00
12	MKP 40-127 g K	0.027	G	6.0	11.5	13.0	0.8	10.00
13	MKP 40-133 g K	0.033	G	6.0	11.5	13.0	0.8	10.00
14	MKP 40-139 g K	0.039	H	5.5	11.0	18.0	0.8	15.00
15	MKP 40-147 g K	0.047	H	5.5	11.0	18.0	0.8	15.00
16	MKP 40-156 g K	0.056	I	6.5	12.5	18.0	0.8	15.00
17	MKP 40-168 g K	0.068	I	6.5	12.5	18.0	0.8	15.00
18	MKP 40-182 g K	0.082	J	8.5	14.5	18.0	0.8	15.00
19	MKP 40-010 g K	0.10	J	8.5	14.5	18.0	0.8	15.00
20	MKP 40-012 g K	0.12	J	8.5	14.5	18.0	0.8	15.00
21	MKP 40-015 g K	0.15	J	8.5	14.5	18.0	0.8	15.00
22	MKP 40-018 g K	0.18	K	7.0	15.5	26.5	0.8	22.50
23	MKP 40-022 g K	0.22	K	7.0	15.5	26.5	0.8	22.50
24	MKP 40-027 g K	0.27	M	10.5	19.0	26.5	0.8	22.50
25	MKP 40-033 g K	0.33	M	10.5	19.0	26.5	0.8	22.50
26	MKP 40-039 g K	0.39	N	11.5	20.5	31.5	0.8	27.50
27	MKP 40-047 g K	0.47	N	11.5	20.5	31.5	0.8	27.50
28	MKP 40-056 g K	0.56	N	11.5	20.5	31.5	0.8	27.50
29	MKP 40-068 g K	0.68	N	11.5	20.5	31.5	0.8	27.50
30	MKP 40-082 g K	0.82	O	14.0	24.0	31.5	0.8	27.50
31	MKP 40-1.0 g K	1.00	O	14.0	24.0	31.5	0.8	27.50
32	MKP 40-1.2 g K	1.20	Q	18.0	29.0	42.0	1.0	37.50
33	MKP 40-1.5 g K	1.50	Q	18.0	29.0	42.0	1.0	37.50
34	MKP 40-1.8 g K	1.80	R	20.0	33.5	42.0	1.0	37.50
35	MKP 40-2.2 g K	2.20	R	20.0	33.5	42.0	1.0	37.50

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Metallized Polycarbonate Capacitors

Type MKP ... g/ga

MKP ... g 630

B4F6	Type	Cn [μF]	Dimensions					
			Case	B [mm]	H [mm]	L [mm]	∅ leads[mm]	Pitch [mm]
1	MKP 63-210 g K	0.0010	D	3.5	8.5	13.0	0.6	10.00
2	MKP 63-215 g K	0.0015	D	3.5	8.5	13.0	0.6	10.00
3	MKP 63-222 g K	0.0022	D	3.5	8.5	13.0	0.6	10.00
4	MKP 63-233 g K	0.0033	D	3.5	8.5	13.0	0.6	10.00
5	MKP 63-247 g K	0.0047	D	3.5	8.5	13.0	0.6	10.00
6	MKP 63-268 g K	0.0068	E	4.0	9.0	13.0	0.6	10.00
7	MKP 63-110 g K	0.010	F	5.0	10.5	13.0	0.8	10.00
8	MKP 63-112 g K	0.012	G	6.0	11.5	13.0	0.8	10.00
9	MKP 63-115 g K	0.015	G	6.0	11.5	13.0	0.8	10.00
10	MKP 63-118 g K	0.018	H	5.5	11.0	18.0	0.8	15.00
11	MKP 63-122 g K	0.022	H	5.5	11.0	18.0	0.8	15.00
12	MKP 63-127 g K	0.027	I	6.5	12.5	18.0	0.8	15.00
13	MKP 63-133 g K	0.033	I	6.5	12.5	18.0	0.8	15.00
14	MKP 63-139 g K	0.039	J	8.5	14.5	18.0	0.8	15.00
15	MKP 63-147 g K	0.047	J	8.5	14.5	18.0	0.8	15.00
16	MKP 63-156 g K	0.056	K	7.0	15.5	26.5	0.8	22.50
17	MKP 63-168 g K	0.068	K	7.0	15.5	26.5	0.8	22.50
18	MKP 63-182 g K	0.082	L	8.5	18.0	26.5	0.8	22.50
19	MKP 63-010 g K	0.10	L	8.5	18.0	26.5	0.8	22.50
20	MKP 63-012 g K	0.12	M	10.5	19.0	26.5	0.8	22.50
21	MKP 63-015 g K	0.15	M	10.5	19.0	26.5	0.8	22.50
22	MKP 63-018 g K	0.18	N	11.5	20.5	31.5	0.8	27.50
23	MKP 63-022 g K	0.22	N	11.5	20.5	31.5	0.8	27.50
24	MKP 63-027 g K	0.27	O	14.0	24.0	31.5	0.8	27.50
25	MKP 63-033 g K	0.33	O	14.0	24.0	31.5	0.8	27.50
26	MKP 63-039 g K	0.39	P	18.0	27.5	31.5	0.8	27.50
27	MKP 63-047 g K	0.47	P	18.0	27.5	31.5	0.8	27.50
28	MKP 63-056 g K	0.56	Q	18.0	29.0	42.0	1.0	37.50
29	MKP 63-068 g K	0.68	Q	18.0	29.0	42.0	1.0	37.50
30	MKP 63-082 g K	0.82	R	20.0	33.5	42.0	1.0	37.50
31	MKP 63-1.0 g K	1.00	R	20.0	33.5	42.0	1.0	37.50

Leclanché Capacitors for Critical Applications and Extreme Environments

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