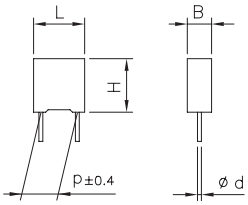
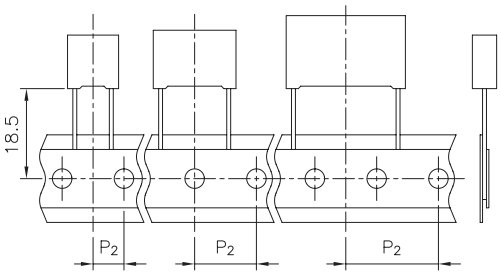
R75 2 - R75 L

MKP Series

METALLIZED POLYPROPYLENE FILM CAPACITOR





Ød±0.05	15≤p≤27.5	p = 37.5
	0.8	1.0

All dimensions are in mm.

Typical applications: This special release is specifically designed for application in series with the main (Capacitive power supply), with particular protection against severe ambient conditions.

BEST FITTING COMPONENTS IN TERMS OF BOTH SIZE & PERFORMANCES

PRODUCT CODE: **R752 (Digit 12: 0 to 9)**
R75L Digit 12: 0 to 9)

Pitch	Box thickness	Maximum dimensions (mm)		
(mm)	(mm)	B max	H max	L max
15.0	<7.5	B +0.2	H +0.1	L +0.3
15.0	≥7.5	B +0.2	H +0.1	L +0.5
22.5	All	B +0.2	H +0.1	L +0.3
27.5	All	B +0.2	H +0.1	L +0.3
37.5	All	B +0.3	H +0.1	L +0.3

PRODUCT CODE SYSTEM

The part number, comprising 14 digits, is formed as follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	7	5										-	

Digit 1 to 3 Series code.

Digit 4 a.c. rated voltage:
2 = 230V L = 250V

Digit 5 Pitch:
I=15mm; N= 22.5 mm;
R=27.5mm; W=37.5mm

Digit 6 to 9 Digits 7 - 8 - 9 indicate the first three digits of Capacitance value and the 6th digit indicates the number of zeros that must be added to obtain the Rated Capacitance in pF.

Digit 10 to 11 Mechanical version and/or packaging (table 1)

Digit 12 Identifies the dimensions and electrical characteristics (0 to 9).

Digit 13 Internal use.

Digit 14 Capacitance tolerance: K=10%; M=20%
Tolerance ± 5% (J) available upon request

GENERAL TECHNICAL DATA

Dielectric: polypropylene film.

Plates: aluminium layer deposited by evaporation under vacuum.

Winding: non-inductive type.

Leads: tinned wire.

Protection: plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94 V0.

Marking: manufacturer's logo, series (R75), dielectric code (MKP), capacitance, tolerance, A.C. rated voltage, manufacturing date code.

Climatic category: 55/105/56 IEC 60068-1

Operating temperature range: -55 to +105°C

Related documents: IEC 60384-16

Winding scheme

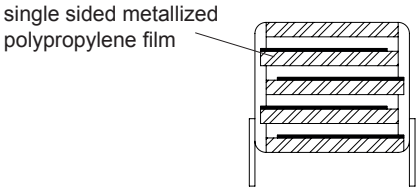


Table 1

Standard packaging style	Lead length	Taping style			Ordering code
	(mm)	P_2 (mm)	Fig. (No.)	Pitch (mm)	(Digit 10 to 11)
AMMO-PACK		12.70	2	15.0	DQ
AMMO-PACK		19.05	3	22.5	DQ
REEL Ø 355mm		12.70	2	15.0	GY
REEL Ø 500mm		12.70	2	15.0	CK
REEL Ø 500mm		19.05	3	22.5/27.5	CK
Loose, short leads	4^{+2}				AA
Loose, long leads (p≥15mm)	30^{+5} $25^{+2/-1}$				40 50

Note: Ammo-pack is the preferred packaging for taped version.

R75 2 - R75 L

MKP Series

METALLIZED POLYPROPYLENE FILM CAPACITOR

PRODUCT CODE: **R752 (Digit 12: 0 to 9)**
R75L (Digit 12: 0 to 9)

Rated Cap.	230Vac / 400Vdc* Std dimensions				Max dv/dt	Max K_0	Part Number
	B	H	L	p	(V/µs)	(V^2/µs)	
0.033 µF	4.0	9.0	13.0	10.0	1000	800 E3	R752F 2330--0--
0.100 µF	6.0	12.0	13.0	10.0	1000	800 E3	R752F 3100--0--
0.082 µF	5.0	11.0	18.0	15.0	700	560 E3	R752I 2820--0--
0.10 µF	5.0	11.0	18.0	15.0	700	560 E3	R752I 3100--0--
0.15 µF	6.0	12.0	18.0	15.0	700	560 E3	R752I 3150--0--
0.18 µF	6.0	12.0	18.0	15.0	700	560 E3	R752I 3180--0--
0.22 µF	7.5	13.5	18.0	15.0	700	560 E3	R752I 3220--0--
0.27 µF	8.5	14.5	18.0	15.0	700	560 E3	R752I 3270--0--
0.33 µF	8.5	14.5	18.0	15.0	700	560 E3	R752I 3330--0--
0.47 µF	10.0	16.0	18.0	15.0	700	560 E3	R752I 3470--0--
0.27 µF	6.0	15.0	26.5	22.5	250	200 E3	R752N 3270--0--
0.33 µF	6.0	15.0	26.5	22.5	250	200 E3	R752N 3330--0--
0.47 µF	7.0	16.0	26.5	22.5	250	200 E3	R752N 3470--0--
0.56 µF	8.5	17.0	26.5	22.5	250	200 E3	R752N 3560--0--
0.68 µF	10.0	18.5	26.5	22.5	250	200 E3	R752N 3680--0--
0.82 µF	10.0	18.5	26.5	22.5	250	200 E3	R752N 3820--0--
1.0 µF	11.0	20.0	26.5	22.5	250	200 E3	R752N 4100--0--
1.5 µF	13.0	22.0	26.5	22.5	250	200 E3	R752N 4150--0--
0.47 µF	9.0	17.0	32.0	27.5	130	104 E3	R752R 3470--0--
0.56 µF	9.0	17.0	32.0	27.5	130	104 E3	R752R 3560--0--
0.68 µF	9.0	17.0	32.0	27.5	130	104 E3	R752R 3680--0--
0.82 µF	9.0	17.0	32.0	27.5	130	104 E3	R752R 3820--0--
1.0 µF	11.0	20.0	32.0	27.5	130	104 E3	R752R 4100--0--
1.2 µF	11.0	20.0	32.0	27.5	130	104 E3	R752R 4120--0--
1.5 µF	13.0	22.0	32.0	27.5	130	104 E3	R752R 4150--0--
1.8 µF	13.0	22.0	32.0	27.5	130	104 E3	R752R 4180--0--
2.2 µF	14.0	28.0	32.0	27.5	130	104 E3	R752R 4220--0--
2.7 µF	18.0	33.0	32.0	27.5	130	104 E3	R752R 4270--0--
3.3 µF	18.0	33.0	32.0	27.5	130	104 E3	R752R 4330--0--
3.9 µF	18.0	33.0	32.0	27.5	130	104 E3	R752R 4390--0--
4.7 µF	22.0	37.0	32.0	27.5	130	104 E3	R752R 4470--0--
1.8 µF	11.0	22.0	41.5	37.5	70	56 E3	R752W4180--0--
2.2 µF	13.0	24.0	41.5	37.5	70	56 E3	R752W4220--0--
2.7 µF	13.0	24.0	41.5	37.5	70	56 E3	R752W4270--0--
3.3 µF	16.0	28.5	41.5	37.5	70	56 E3	R752W4330--0--
3.9 µF	16.0	28.5	41.5	37.5	70	56 E3	R752W4390--0--
4.7 µF	19.0	32.0	41.5	37.5	70	56 E3	R752W4470--0--
5.6 µF	19.0	32.0	41.5	37.5	70	56 E3	R752W4560--0--
6.8 µF	20.0	40.0	41.5	37.5	70	56 E3	R752W4680--0--

Mechanical version and packaging (Table1)
Internal use
Tolerance: K (±10%); M (±20%)

All dimensions are in mm

Rated Cap.	250Vac / 560Vdc* Std dimensions				Max dv/dt	Max K_0	Part Number
	B	H	L	p	(V/µs)	(V^2/µs)	
0.010 µF	4.0	9.0	13.0	10.0	1500	168 E4	R75LF 2100--0--
0.015 µF	4.0	9.0	13.0	10.0	1500	168 E4	R75LF 2150--0--
0.022 µF	4.0	9.0	13.0	10.0	1500	168 E4	R75LF 2220--0--
0.033 µF	5.0	11.0	13.0	10.0	1500	168 E4	R75LF 2330--0--
0.047 µF	5.0	11.0	13.0	10.0	1500	168 E4	R75LF 2470--0--
0.068 µF	6.0	12.0	13.0	10.0	1500	168 E4	R75LF 2680--0--
0.056 µF	5.0	11.0	18.0	15.0	900	101 E4	R75LI 2560--0--
0.068 µF	5.0	11.0	18.0	15.0	900	101 E4	R75LI 2680--0--
0.082 µF	5.0	11.0	18.0	15.0	900	101 E4	R75LI 2820--0--
0.10 µF	6.0	12.0	18.0	15.0	900	101 E4	R75LI 3100--0--
0.15 µF	7.5	13.5	18.0	15.0	900	101 E4	R75LI 3150--0--
0.18 µF	7.5	13.5	18.0	15.0	900	101 E4	R75LI 3180--0--
0.22 µF	8.5	14.5	18.0	15.0	900	101 E4	R75LI 3220--0--
0.27 µF	10.0	16.0	18.0	15.0	900	101 E4	R75LI 3270--0--
0.33 µF	10.0	16.0	18.0	15.0	900	101 E4	R75LI 3330--0--
0.22 µF	6.0	15.0	26.5	22.5	300	336 E3	R75LN 3220--0--
0.27 µF	6.0	15.0	26.5	22.5	300	336 E3	R75LN 3270--0--
0.33 µF	7.0	16.0	26.5	22.5	300	336 E3	R75LN 3330--0--
0.47 µF	8.5	17.0	26.5	22.5	300	336 E3	R75LN 3470--0--
0.56 µF	10.0	18.5	26.5	22.5	300	336 E3	R75LN 3560--0--
0.68 µF	11.0	20.0	26.5	22.5	300	336 E3	R75LN 3680--0--
0.82 µF	11.0	20.0	26.5	22.5	300	336 E3	R75LN 3820--0--
1.0 µF	13.0	22.0	26.5	22.5	300	336 E3	R75LN 4100--0--
0.33 µF	9.0	17.0	32.0	27.5	150	168 E3	R75LR 3330--0--
0.39 µF	9.0	17.0	32.0	27.5	150	168 E3	R75LR 3390--0--
0.47 µF	9.0	17.0	32.0	27.5	150	168 E3	R75LR 3470--0--
0.56 µF	9.0	17.0	32.0	27.5	150	168 E3	R75LR 3560--0--
0.68 µF	11.0	20.0	32.0	27.5	150	168 E3	R75LR 3680--0--
0.82 µF	11.0	20.0	32.0	27.5	150	168 E3	R75LR 3820--0--
1.0 µF	13.0	22.0	32.0	27.5	150	168 E3	R75LR 4100--0--
1.2 µF	13.0	22.0	32.0	27.5	150	168 E3	R75LR 4120--0--
1.5 µF	13.0	25.0	32.0	27.5	150	168 E3	R75LR 4150--0--
1.8 µF	18.0	33.0	32.0	27.5	150	168 E3	R75LR 4180--0--
2.2 µF	18.0	33.0	32.0	27.5	150	168 E3	R75LR 4220--0--
2.7 µF	18.0	33.0	32.0	27.5	150	168 E3	R75LR 4270--0--
3.3 µF	22.0	37.0	32.0	27.5	150	168 E3	R75LR 4330--0--
3.9 µF	22.0	37.0	32.0	27.5	150	168 E3	R75LR 4390--0--
1.2 µF	11.0	22.0	41.5	37.5	90	101 E3	R75LW 4120--0--
1.5 µF	13.0	24.0	41.5	37.5	90	101 E3	R75LW 4150--0--
1.8 µF	13.0	24.0	41.5	37.5	90	101 E3	R75LW 4180--0--
2.2 µF	16.0	28.5	41.5	37.5	90	101 E3	R75LW 4220--0--
2.7 µF	16.0	28.5	41.5	37.5	90	101 E3	R75LW 4270--0--
3.3 µF	19.0	32.0	41.5	37.5	90	101 E3	R75LW 4330--0--
3.9 µF	19.0	32.0	41.5	37.5	90	101 E3	R75LW 4390--0--
4.7 µF	20.0	40.0	41.5	37.5	90	101 E3	R75LW 4470--0--
5.6 µF	20.0	40.0	41.5	37.5	90	101 E3	R75LW 4560--0--
6.8 µF	24.0	44.0	41.5	37.5	90	101 E3	R75LW 4680--0--
8.2 µF	24.0	44.0	41.5	37.5	90	101 E3	R75LW 4820--0--
10.0 µF	30.0	45.0	41.5	37.5	90	101 E3	R75LW 5100--0--

Mechanical version and packaging (Table1)
Internal use
Tolerance: K (±10%); M (±20%)

E12 Series available upon request

Note: If the working voltage (V) is lower than the rated voltage (V_R), the capacitor may work at higher dv/dt. In this case the maximum value allowed is obtained multiplying the above value (see table dv/dt) with the ratio V_R/V.
The pulse characteristic K_0 depends on the voltage wave-form and in any case it cannot overcome the value given in the above table. The dv/dt test is carried out at 2 times the above values.

*Not suitable for EMI filtering applications.

The Capacitance Company
KEMET
CHARGED.

R75 2 - R75 L

MKP Series

METALLIZED POLYPROPYLENE FILM CAPACITOR

PRODUCT CODE: **R752 (Digit 12: 0 to 9)**
R75L (Digit 12: 0 to 9)

ELECTRICAL CHARACTERISTICS

Rated voltage (V_R): 230Vac (400Vdc) - 250Vac (560Vdc)
Rated temperature (T_R):+85°C

Temperature derated voltage:
The following decreasing factor has to be applied on the rated voltage:
+85°C to +105°C: 2.00% per °C for V_R (d.c.)
+85°C to +105°C: 0.5% per °C for V_R (a.c.)

Capacitance range: 0.056 µF to 10 µF.
Capacitance values:
E12 series (IEC 60063 Norm).

Capacitance tolerances (measured at 1 kHz)**:**
±10% (K); ±20% (M).

Total self-inductance (L)**:** (Lead length ~2 mm)

Pitch (mm)	15	22.5	27.5	37.5
L (nH) ≈	10	18	18	20

Dissipation factor (DF):
tgδx10^{-4} at +25°C±5°C

kHz	C≤0.1µF	0.1<C≤1.0µF	1<C≤3.3µF	3.3<C≤10µF
1	≤ 4	≤5	≤6	≤10
10	≤ 6	≤8		
100	≤25			

Insulation resistance:

Test conditions
Temperature: +25±C°5°C
Voltage charge time: 1min
Voltage charge: 100Vdc

Performance
≥1x10^5 MΩ for C≤0.33µF (5x10^5 MΩ)*
≥30000 s for C >0.33µF (150000 s)*
* Typical value.

Test voltage between terminations:

1.6xV_R applied for 2 s at +25°C±5°C

Surge test:

1500 Vpk (10 pulses) for 230Vac

1700 Vpk (10 pulses) for 250Vac

TEST METHOD AND PERFORMANCE

Damp heat, steady state:

Test conditions 1st
Temperature: +40°C±2°C
Relative humidity (RH): 93% ±2%
Test duration: 56 days

Performance
Capacitance change |ΔC/C|: ≤2%
DF change (Δtgδ): ≤10x10^{-4} at 1kHz
Insulation resistance: ≥50% of initial limit.

Test conditions 2nd
Temperature: +40°C±2°C
Relative humidity (RH): 93% ±2%
Test duration: 56 days
Voltage applied: V_R

Performance
Capacitance change |ΔC/C|: ≤5%
DF change (Δtgδ): ≤10x10^{-4} at 1kHz
Insulation resistance: ≥50% of initial limit.

Test conditions 3rd
Temperature: +85°C±2°C
Relative humidity (RH): 85% ±2%
Test duration: 250 h
Voltage applied: V_R

Performance
Capacitance change |ΔC/C|: ≤5%
DF change (Δtgδ): ≤10x10^{-4} at 1kHz
Insulation resistance: ≥50% of initial limit.

Endurance:

Test conditions
Temperature: +85°C±2°C
Test duration: 2000 h
Voltage applied: 1.25xV_R

Performance
Capacitance change |ΔC/C|: ≤5%
DF change (Δtgδ): ≤10x10^{-4} at 10kHz for C≤1µF
≤10x10^{-4} at 1kHz for C>1µF
Insulation resistance: ≥50% of initial limit.

Resistance to soldering heat:

Test conditions
Solder bath temperature: +260°C±5°C
Dipping time (with heat screen):10 s±1 s

Performance
Capacitance change |ΔC/C|: ≤1%
DF change (Δtgδ): ≤10x10^{-4} at 10kHz for C≤1µF
≤10x10^{-4} at 1kHz for C>1µF
Insulation resistance: ≥initial limit.

Long term stability (after two years)**:**

Storage: standard environmental conditions (see page 12 of DC film capacitors catalogue)

Performance
Capacitance change |ΔC/C|: ≤0.5%

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute – and we specifically disclaim – any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.