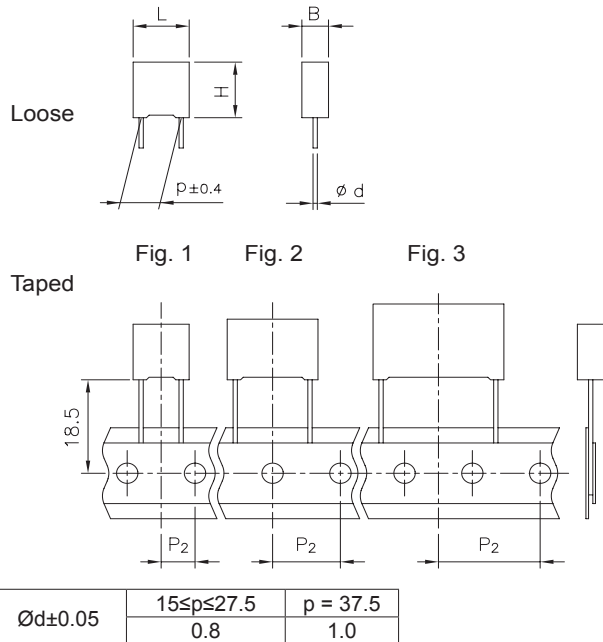


METALLIZED POLYPROPYLENE FILM CAPACITOR



All dimensions are in mm.

PRODUCT CODE SYSTEM

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



- 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

Table 1

Standard packaging style	Lead length (mm)	Taping style			Ordering code (Digit 10 to 11)
		P ₂ (mm)	Fig. (No.)	Pitch (mm)	
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.

Typical applications: This special release is specifically designed for application in serial with the main, with particular protection against severe ambiente conditions. Please contact our Technical Service for more details

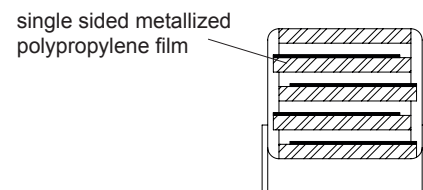
PRODUCT CODE: **R752 (Digit 12: 0 to 9)**
R75L Digit 12: 0 to 9)

Pitch (mm)	Box thickness (mm)	Maximum dimensions (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

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



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 (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.082 μF	5.0	11.0	18.0	15.0	400	240 E3	R752I 2820--0--
0.10 μF	5.0	11.0	18.0	15.0	400	240 E3	R752I 3100--0--
0.15 μF	6.0	12.0	18.0	15.0	400	240 E3	R752I 3150--0--
0.18 μF	6.0	12.0	18.0	15.0	400	240 E3	R752I 3180--0--
0.22 μF	7.5	13.5	18.0	15.0	400	240 E3	R752I 3220--0--
0.27 μF	8.5	14.5	18.0	15.0	400	240 E3	R752I 3270--0--
0.33 μF	8.5	14.5	18.0	15.0	400	240 E3	R752I 3330--0--
0.47 μF	10.0	16.0	18.0	15.0	400	240 E3	R752I 3470--0--
0.27 μF	6.0	15.0	26.5	22.5	200	144 E3	R752N 3270--0--
0.33 μF	6.0	15.0	26.5	22.5	200	144 E3	R752N 3330--0--
0.47 μF	7.0	16.0	26.5	22.5	200	144 E3	R752N 3470--0--
0.56 μF	8.5	17.0	26.5	22.5	200	144 E3	R752N 3560--0--
0.68 μF	10.0	18.5	26.5	22.5	200	144 E3	R752N 3680--0--
0.82 μF	10.0	18.5	26.5	22.5	200	144 E3	R752N 3820--0--
1.0 μF	11.0	20.0	26.5	22.5	200	144 E3	R752N 4100--0--
1.5 μF	13.0	22.0	26.5	22.5	200	144 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--
1.0 μF	11.0	20.0	32.0	27.5	130	104 E3	R752R 4100--0--
1.5 μF	13.0	22.0	32.0	27.5	130	104 E3	R752R 4150--0--
2.2 μF	14.0	28.0	32.0	27.5	130	104 E3	R752R 4220--0--
3.3 μF	18.0	33.0	32.0	27.5	130	104 E3	R752R 4330--0--
4.7 μF	22.0	37.0	32.0	37.5	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--
3.3 μF	16.0	28.5	41.5	37.5	70	56 E3	R752W4330--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%) _____

Rated Cap.	250Vac / 560Vdc* Std dimensions				Max dv/dt (V/μs)	Max K ₀ (V ² /μs)	Part Number
	B	H	L	p			
0.056 μF	5.0	11.0	18.0	15.0	500	504 E3	R75LI 2560--0--
0.068 μF	5.0	11.0	18.0	15.0	500	504 E3	R75LI 2680--0--
0.082 μF	5.0	11.0	18.0	15.0	500	504 E3	R75LI 2820--0--
0.10 μF	6.0	12.0	18.0	15.0	500	504 E3	R75LI 3100--0--
0.15 μF	7.5	13.5	18.0	15.0	500	504 E3	R75LI 3150--0--
0.18 μF	7.5	13.5	18.0	15.0	500	504 E3	R75LI 3180--0--
0.22 μF	8.5	14.5	18.0	15.0	500	504 E3	R75LI 3220--0--
0.27 μF	10.0	16.0	18.0	15.0	500	504 E3	R75LI 3270--0--
0.33 μF	10.0	16.0	18.0	15.0	500	504 E3	R75LI 3330--0--
0.22 μF	6.0	15.0	26.5	22.5	250	315 E3	R75LN 3220--0--
0.27 μF	6.0	15.0	26.5	22.5	250	315 E3	R75LN 3270--0--
0.33 μF	7.0	16.0	26.5	22.5	250	315 E3	R75LN 3330--0--
0.47 μF	8.5	17.0	26.5	22.5	250	315 E3	R75LN 3470--0--
0.56 μF	10.0	18.5	26.5	22.5	250	315 E3	R75LN 3560--0--
0.68 μF	11.0	20.0	26.5	22.5	250	315 E3	R75LN 3680--0--
0.82 μF	11.0	20.0	26.5	22.5	250	315 E3	R75LN 3820--0--
1.0 μF	13.0	22.0	26.5	22.5	250	315 E3	R75LN 4100--0--
0.33 μF	9.0	17.0	32.0	27.5	150	188 E3	R75LR 3330--0--
0.47 μF	9.0	17.0	32.0	27.5	150	188 E3	R75LR 3470--0--
0.56 μF	9.0	17.0	32.0	27.5	150	188 E3	R75LR 3560--0--
0.68 μF	11.0	20.0	32.0	27.5	150	188 E3	R75LR 3680--0--
1.0 μF	13.0	22.0	32.0	27.5	150	188 E3	R75LR 4100--0--
1.5 μF	13.0	25.0	32.0	27.5	150	188 E3	R75LR 4150--0--
2.2 μF	18.0	33.0	32.0	27.5	150	188 E3	R75LR 4220--0--
3.3 μF	22.0	37.0	32.0	27.5	150	188 E3	R75LR 4330--0--
3.9 μF	22.0	37.0	32.0	27.5	150	188 E3	R75LR 4390--0--
1.2 μF	11.0	22.0	41.5	37.5	90	113 E3	R75LW 4120--0--
1.5 μF	13.0	24.0	41.5	37.5	90	113 E3	R75LW 4150--0--
2.2 μF	16.0	28.5	41.5	37.5	90	113 E3	R75LW 4220--0--
3.3 μF	19.0	32.0	41.5	37.5	90	113 E3	R75LW 4330--0--
4.7 μF	20.0	40.0	41.5	37.5	90	113 E3	R75LW 4470--0--
5.6 μF	20.0	40.0	41.5	37.5	90	113 E3	R75LW 4560--0--
6.8 μF	24.0	44.0	41.5	37.5	90	113 E3	R75LW 4680--0--
10.0 μF	30.0	45.0	41.5	37.5	90	113 E3	R75LW 5100--0--

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

All dimensions are in mm

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 K₀ 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.

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 μ F to 10 μ F.

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) \approx	10	18	18	20

Dissipation factor (DF):

$\text{tg}\delta \times 10^{-4}$ at +25°C ±5°C

kHz	$C \leq 0.1 \mu\text{F}$	$0.1 < C \leq 1.0 \mu\text{F}$	$1 < C \leq 3.3 \mu\text{F}$	$3.3 < C \leq 10 \mu\text{F}$
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

$\geq 1 \times 10^5 \text{ M}\Omega$ for $C \leq 0.33 \mu\text{F}$ ($5 \times 10^5 \text{ M}\Omega$)*
 $\geq 30000 \text{ s}$ for $C > 0.33 \mu\text{F}$ (150000 s)*

* Typical value.

Test voltage between terminations:

$1.6 \times V_R$ applied for 2 s at +25°C ±5°C

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 $|\Delta C/C|$: $\leq 2\%$
 DF change ($\Delta \text{tg}\delta$): $\leq 10 \times 10^{-4}$ at 1kHz
 Insulation resistance: $\geq 50\%$ 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 $|\Delta C/C|$: $\leq 5\%$
 DF change ($\Delta \text{tg}\delta$): $\leq 10 \times 10^{-4}$ at 1kHz
 Insulation resistance: $\geq 50\%$ 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 $|\Delta C/C|$: $\leq 5\%$
 DF change ($\Delta \text{tg}\delta$): $\leq 10 \times 10^{-4}$ at 1kHz
 Insulation resistance: $\geq 50\%$ of initial limit.

Endurance:

Test conditions

Temperature: +85°C ±2°C
 Test duration: 2000 h
 Voltage applied: $1.25 \times V_R$

Performance

Capacitance change $|\Delta C/C|$: $\leq 5\%$
 DF change ($\Delta \text{tg}\delta$): $\leq 10 \times 10^{-4}$ at 10kHz for $C \leq 1 \mu\text{F}$
 $\leq 10 \times 10^{-4}$ at 1kHz for $C > 1 \mu\text{F}$
 Insulation resistance: $\geq 50\%$ 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 $|\Delta C/C|$: $\leq 1\%$
 DF change ($\Delta \text{tg}\delta$): $\leq 10 \times 10^{-4}$ at 10kHz for $C \leq 1 \mu\text{F}$
 $\leq 10 \times 10^{-4}$ at 1kHz for $C > 1 \mu\text{F}$
 Insulation resistance: \geq initial limit.

Long term stability (after two years):

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

Performance

Capacitance change $|\Delta C/C|$: $\leq 0.5\%$