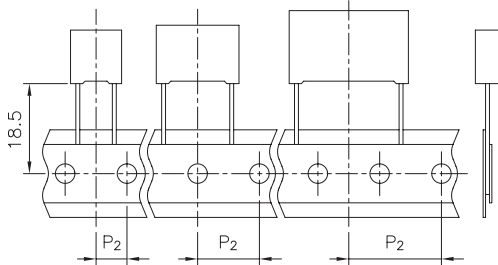
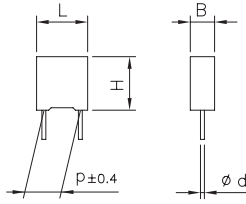


## METALLIZED POLYPROPYLENE FILM CAPACITOR

**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)**



|         |           |          |
|---------|-----------|----------|
| Ød±0.05 | 15≤p≤27.5 | p = 37.5 |
|         | 0.8       | 1.0      |

All dimensions are in mm.

| 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 |

### 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 <sub>2</sub> (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 <sup>+2</sup>     |                     |            |            | AA                             |
| Loose, long leads (p≥15mm) | 30 <sup>+5</sup>    |                     |            |            | 40                             |
|                            | 25 <sup>+2/-1</sup> |                     |            |            | 50                             |

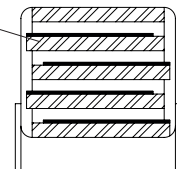
Note: Ammo-pack is the preferred packaging for taped version.

### 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

single sided metallized polypropylene film



## METALLIZED POLYPROPYLENE FILM CAPACITOR

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

| Rated Cap. | 230Vac / 400Vdc*<br>Std dimensions |      |      |      | Max dv/dt<br>(V/μs) | Max K <sub>0</sub><br>(V <sup>2</sup> /μs) | Part Number     |
|------------|------------------------------------|------|------|------|---------------------|--|-----------------|
|            | B                                  | H    | L    | p    |                     |  |                 |
| 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*<br>Std dimensions |      |      |      | Max dv/dt<br>(V/μs) | Max K <sub>0</sub><br>(V <sup>2</sup> /μs) | Part Number     |
|------------|------------------------------------|------|------|------|---------------------|--|-----------------|
|            | B                                  | H    | L    | p    |                     |  |                 |
| 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<sub>R</sub>), 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<sub>R</sub>/V.  
 The pulse characteristic K<sub>0</sub> 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  $\mu$ F to 10  $\mu$ F.

**Capacitance values:**

E12 series (IEC 60063 Norm).

**Capacitance tolerances** (measured at 1 kHz):

$\pm 10\%$  (K);  $\pm 20\%$  (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  $\pm 5^\circ$ 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   | $\leq 4$                 | $\leq 5$                       | $\leq 6$                     | $\leq 10$                     |
| 10  | $\leq 6$                 | $\leq 8$                       |                              |                               |
| 100 | $\leq 25$                |                                |                              |                               |

**Insulation resistance:**

**Test conditions**

Temperature: +25°C  $\pm 5^\circ$ 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  $\pm 5^\circ$ 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  $\pm 2^\circ$ C

Relative humidity (RH): 93%  $\pm 2\%$

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  $\pm 2^\circ$ C

Relative humidity (RH): 93%  $\pm 2\%$

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  $\pm 2^\circ$ C

Relative humidity (RH): 85%  $\pm 2\%$

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  $\pm 2^\circ$ 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  $\pm 5^\circ$ C

Dipping time (with heat screen): 10 s  $\pm 1$  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  $|\Delta C/C|$ :  $\leq 0.5\%$

单击下面可查看定价，库存，交付和生命周期等信息

[>>KEMET Electronics\(基美\)](#)