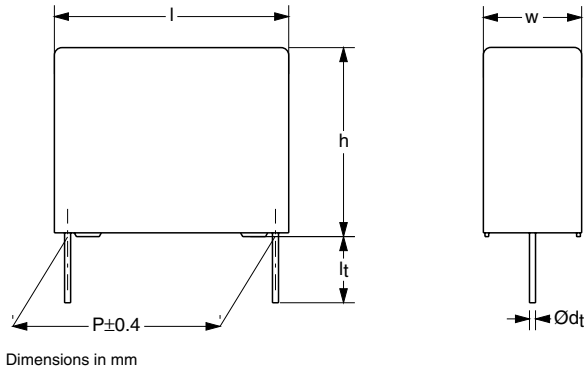


AC and Pulse Metallized Polypropylene Film Capacitors MKP Radial Potted Type



APPLICATIONS

Low losses due to low contact resistance and low loss dielectric make these products suitable for applications where high currents at high frequency occur or high stability is preferred. Their small dimensions make them ideal for circuits with high packaging density.

MARKING

C-value; tolerance; rated voltage; manufacturer's type designation; code for dielectric material; manufacturer's emblem; code for factory of origin; year and week of manufacture

DIELECTRIC

Polypropylene film

ELECTRODES

Metallized film

ENCAPSULATION

Flame retardant plastic case and epoxy resin (UL-class 94 V-0)

CONSTRUCTION

Wound mono construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES)

0.01 to 6.2 μ F

FEATURES

10 to 27.5 mm pitch. Supplied loose in box and taped on reel

Lead (Pb)-free product

RoHS-compliant product

CAPACITANCE TOLERANCE

$\pm 5\%$; $\pm 3.5\%$

RATED (DC) VOLTAGE

160 V; 250 V; 400 V; 630 V

RATED (AC) VOLTAGE

100 V; 160 V; 200 V; 220 V

RATED PEAK-TO-PEAK VOLTAGE

280 V; 450 V; 560 V; 620 V

CLIMATIC CATEGORY

55/085/56

RATED TEMPERATURE

85 °C

MAXIMUM APPLICATION TEMPERATURE

85 °C

REFERENCE SPECIFICATIONS

IEC 60384-17

PERFORMANCE GRADE

Grade 1 (long life)

STABILITY GRADE

100 V, 160 V versions: grade 2

250 V to 630 V versions; pitch 5 to 15 mm: grade 2

250 V to 630 V versions; pitch 22.5 and 27.5 mm: grade 1

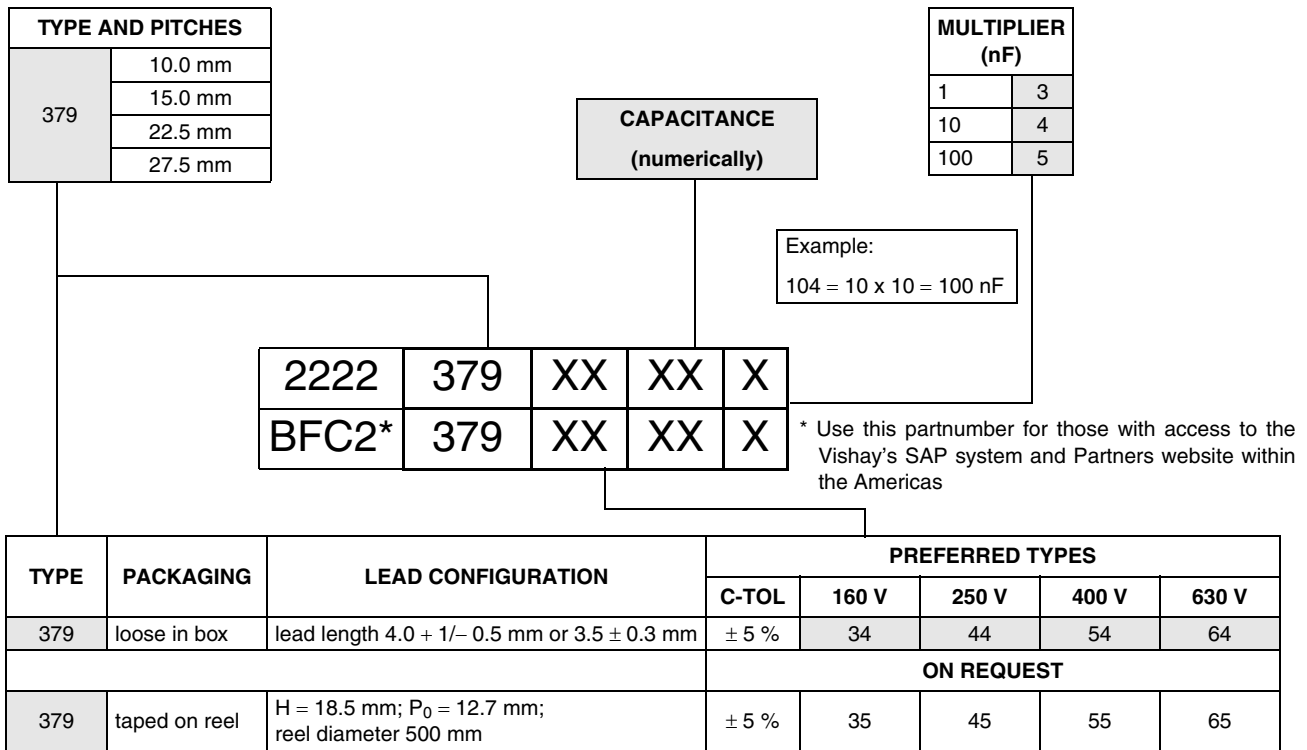
DETAIL SPECIFICATION

For more detailed data and test requirements see "Type detail specification HQN-384-17/103"



RoHS
COMPLIANT

COMPOSITION OF CATALOG NUMBER





SPECIFIC REFERENCE DATA (160 VDC)

| DESCRIPTION | VALUE | |
|--|-------------------------|--------------------------|
| | at 10 kHz | at 100 kHz |
| Tangent of loss angle: | | |
| C ≤ 0.075 μF | ≤ 5 × 10 ⁻⁴ | ≤ 20 × 10 ⁻⁴ |
| 0.075 μF < C ≤ 0.11 μF | ≤ 5 × 10 ⁻⁴ | ≤ 25 × 10 ⁻⁴ |
| 0.11 μF < C ≤ 0.16 μF | ≤ 10 × 10 ⁻⁴ | ≤ 30 × 10 ⁻⁴ |
| 0.18 μF < C ≤ 0.3 μF | ≤ 10 × 10 ⁻⁴ | ≤ 35 × 10 ⁻⁴ |
| 0.3 μF < C ≤ 0.39 μF | ≤ 10 × 10 ⁻⁴ | ≤ 40 × 10 ⁻⁴ |
| 0.39 μF < C ≤ 0.56 μF | ≤ 10 × 10 ⁻⁴ | ≤ 45 × 10 ⁻⁴ |
| 0.56 μF < C ≤ 0.68 μF | ≤ 10 × 10 ⁻⁴ | ≤ 50 × 10 ⁻⁴ |
| 0.68 μF < C ≤ 0.82 μF | ≤ 10 × 10 ⁻⁴ | ≤ 55 × 10 ⁻⁴ |
| 0.82 μF < C ≤ 0.91 μF | ≤ 10 × 10 ⁻⁴ | ≤ 60 × 10 ⁻⁴ |
| 0.91 μF < C ≤ 1.0 μF | ≤ 10 × 10 ⁻⁴ | ≤ 65 × 10 ⁻⁴ |
| 1.0 μF < C ≤ 1.2 μF | ≤ 10 × 10 ⁻⁴ | ≤ 70 × 10 ⁻⁴ |
| 1.2 μF < C ≤ 1.3 μF | ≤ 10 × 10 ⁻⁴ | ≤ 75 × 10 ⁻⁴ |
| 1.3 μF < C ≤ 1.5 μF | ≤ 10 × 10 ⁻⁴ | ≤ 80 × 10 ⁻⁴ |
| 1.5 μF < C ≤ 1.6 μF | ≤ 10 × 10 ⁻⁴ | ≤ 85 × 10 ⁻⁴ |
| 1.6 μF < C ≤ 1.8 μF | ≤ 10 × 10 ⁻⁴ | ≤ 90 × 10 ⁻⁴ |
| 1.8 μF < C ≤ 2.0 μF | ≤ 10 × 10 ⁻⁴ | ≤ 95 × 10 ⁻⁴ |
| 2.0 μF < C ≤ 2.2 μF | ≤ 10 × 10 ⁻⁴ | ≤ 100 × 10 ⁻⁴ |
| 2.2 μF < C ≤ 2.4 μF | ≤ 15 × 10 ⁻⁴ | ≤ 105 × 10 ⁻⁴ |
| 2.4 μF < C ≤ 2.7 μF | ≤ 15 × 10 ⁻⁴ | ≤ 110 × 10 ⁻⁴ |
| 2.7 μF < C ≤ 3.0 μF | ≤ 15 × 10 ⁻⁴ | ≤ 115 × 10 ⁻⁴ |
| 3.0 μF < C ≤ 3.3 μF | ≤ 15 × 10 ⁻⁴ | ≤ 125 × 10 ⁻⁴ |
| 3.3 μF < C ≤ 3.6 μF | ≤ 15 × 10 ⁻⁴ | ≤ 130 × 10 ⁻⁴ |
| 3.6 μF < C ≤ 3.9 μF | ≤ 15 × 10 ⁻⁴ | ≤ 135 × 10 ⁻⁴ |
| 3.9 μF < C ≤ 4.3 μF | ≤ 15 × 10 ⁻⁴ | ≤ 145 × 10 ⁻⁴ |
| 4.3 μF < C ≤ 4.7 μF | ≤ 20 × 10 ⁻⁴ | ≤ 155 × 10 ⁻⁴ |
| 4.7 μF < C ≤ 5.1 μF | ≤ 20 × 10 ⁻⁴ | ≤ 160 × 10 ⁻⁴ |
| 5.1 μF < C ≤ 5.6 μF | ≤ 20 × 10 ⁻⁴ | ≤ 175 × 10 ⁻⁴ |
| 5.6 μF < C ≤ 6.2 μF | ≤ 20 × 10 ⁻⁴ | ≤ 185 × 10 ⁻⁴ |
| Rated voltage pulse slope (dU/dt) _R : | | |
| l = 12.5 mm | 60 V/μs | |
| l = 17.5 mm | 50 V/μs | |
| l = 26.0 mm | 25 V/μs | |
| l = 31.0 mm | 15 V/μs (b < 15 mm) | |
| l = 31.0 mm | 7.5 V/μs (b ≥ 15 mm) | |
| R between leads for C ≤ 1.0 μF at 100 V; 1 minute | > 100000 MΩ | |
| RC between leads, for C > 1 μF at 100 V; 1 minute | > 100000 s | |
| R between interconnected leads and case; 100 V; 1 minute | > 100000 MΩ | |
| Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s | 256 V; 1 minute | |
| Withstanding (DC)voltage between leads and case | 2840 V; 1 minute | |



$U_{Rdc} = 160 \text{ V}$; $U_{Rac} = 100 \text{ V}$; $U_{p-p} = 280 \text{ V}$

| C (μF) | DIMENSIONS W × H × L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|--|---------------------------------|-------------|---|------------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/-0.5 \text{ mm}^{(1)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5 \%$ | last 5 digits of catalog number | | |
| Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.075 0.082 0.091 0.1 | 4.0 × 10.0 × 12.5 | 0.6 | 34753 34823 34913 34104 | 1000 | 1400 | |
| 0.11 0.12 0.13 0.15 | 5.0 × 11.0 × 12.5 | 0.85 | 34114 34124 34134 34154 | 1000 | 1100 | |
| 0.16 | 6.0 × 12.0 × 12.5 | 1.0 | 34164 | 1000 | 900 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.18 0.2 0.22 0.24 0.27 | 5.0 × 11.0 × 17.5 | 1.2 | 34184 34204 34224 34244 34274 | 1000 | 1100 | |
| 0.3 0.33 0.36 0.39 | 6.0 × 12.0 × 17.5 | 1.4 | 34304 34334 34364 34394 | 1000 | 900 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.43 0.47 0.51 | 7.0 × 13.5 × 17.5 | 1.9 | 34434 34474 34514 | 1000 | 800 | |
| 0.56 0.62 0.68 0.75 | 8.5 × 15.0 × 17.5 | 2.6 | 34564 34624 34684 34754 | 1000 | 650 | |
| Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.82 0.91 | 7.0 × 16.5 × 26.0 | 3.2 | 34824 34914 | 200 | 550 | |
| 1 1.1 1.2 1.3 | 8.5 × 18.0 × 26.0 | 4.4 | 34105 34115 34125 34135 | 200 | 450 | |
| 1.5 1.6 1.8 | 10.0 × 19.5 × 26.0 | 5.5 | 34155 34165 34185 | 200 | 350 | |
| Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 2 2.2 2.4 | 11.0 × 21.0 × 31.0 | 7.8 | 34205 34225 34245 | 100 | | |
| 2.7 3 3.3 | 13.0 × 23.0 × 31.0 | 10.4 | 34275 34305 34335 | 100 | | |



| C (μF) | DIMENSIONS W x H x L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|--------------------------|---------------------------------|-------------|---|------------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/- 0.5 \text{ mm}^{(1)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5 \%$ | last 5 digits of catalog number | | |
| 3.6 3.9 4.3 | 15.0 x 25.0 x 31.0 | 12.8 | 34365 34395 34435 | 100 | | |
| 4.7 5.1 5.6 6.2 | 18.0 x 28.0 x 31.0 | 17.2 | 34475 34515 34565 34625 | 100 | | |

Note

1. $l_t = 4.0 + 1/- 0.5 \text{ mm}$ for pitch = 10 mm and $3.5 \pm 0.3 \text{ mm}$ for pitch = 15 mm; 22.5 mm and 27.5 mm.

SPECIFIC REFERENCE DATA (250 VDC)

| DESCRIPTION | VALUE | |
|--|--------------------------------------|---------------------------|
| | at 10 kHz | at 100 kHz |
| Tangent of loss angle: | | |
| 0.047 $\mu\text{F} < C \leq 0.075 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 20 \times 10^{-4}$ |
| 0.075 $\mu\text{F} < C \leq 0.011 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 25 \times 10^{-4}$ |
| 0.11 $\mu\text{F} < C \leq 0.18 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 30 \times 10^{-4}$ |
| 0.18 $\mu\text{F} < C \leq 0.3 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 35 \times 10^{-4}$ |
| 0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 40 \times 10^{-4}$ |
| 0.39 $\mu\text{F} < C \leq 0.56 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 40 \times 10^{-4}$ |
| 0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 50 \times 10^{-4}$ |
| 0.68 $\mu\text{F} < C \leq 0.82 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 55 \times 10^{-4}$ |
| 0.82 $\mu\text{F} < C \leq 0.91 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 60 \times 10^{-4}$ |
| 0.91 $\mu\text{F} < C \leq 1.0 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 65 \times 10^{-4}$ |
| 1.0 $\mu\text{F} < C \leq 1.2 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 70 \times 10^{-4}$ |
| 1.2 $\mu\text{F} < C \leq 1.3 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 75 \times 10^{-4}$ |
| 1.3 $\mu\text{F} < C \leq 1.5 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 80 \times 10^{-4}$ |
| 1.5 $\mu\text{F} < C \leq 1.6 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 85 \times 10^{-4}$ |
| 1.6 $\mu\text{F} < C \leq 1.8 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 90 \times 10^{-4}$ |
| 1.8 $\mu\text{F} < C \leq 2.0 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 95 \times 10^{-4}$ |
| 2.0 $\mu\text{F} < C \leq 2.2 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 100 \times 10^{-4}$ |
| 2.2 $\mu\text{F} < C \leq 2.4 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 105 \times 10^{-4}$ |
| 2.4 $\mu\text{F} < C \leq 2.7 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 110 \times 10^{-4}$ |
| 2.7 $\mu\text{F} < C \leq 3.0 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 115 \times 10^{-4}$ |
| 3.0 $\mu\text{F} < C \leq 3.3 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 125 \times 10^{-4}$ |
| 3.3 $\mu\text{F} < C \leq 3.6 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 130 \times 10^{-4}$ |
| 3.6 $\mu\text{F} < C \leq 3.9 \mu\text{F}$ | $\leq 15 \times 10^{-4}$ | $\leq 135 \times 10^{-4}$ |
| Rated voltage pulse slope (dU/dt) _R : | | |
| l = 12.5 mm | 70 V/ μs | |
| l = 17.5 mm | 60 V/ μs | |
| l = 26.0 mm | 30 V/ μs | |
| l = 31.0 mm | 20 V/ μs (b < 15 mm) | |
| l = 31.0 mm | 10 V/ μs (b \geq 15 mm) | |
| R between leads for C \leq 1.0 μF at 100 V; 1 minute | > 100000 M Ω | |
| RC between leads, for C > 1 μF at 100 V; 1 minute | > 100000 s | |
| R between interconnected leads and case; 100 V; 1 minute | > 100000 M Ω | |
| Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s | 400 V; 1 minute | |
| Withstanding (DC)voltage between leads and case | 2840 V; 1 minute | |



$U_{Rdc} = 250 \text{ V}$; $U_{Rac} = 160 \text{ V}$; $U_{p-p} = 450 \text{ V}$

| C (μF) | DIMENSIONS W × H × L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|--|---------------------------------|-------------|--|------------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/-0.5 \text{ mm}^{(1)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5 \%$ | LAST 5 DIGITS OF CATALOG NUMBER | | |
| Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.047 0.051 0.056 0.062 0.068 | 4.0 × 10.0 × 12.5 | 0.6 | 44473 44513 44563 44623 44683 | 1000 | 1400 | |
| 0.075 0.082 0.091 | 5.0 × 11.0 × 12.5 | 0.85 | 44753 44823 44913 | 1000 | 1100 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.1 0.11 0.12 0.13 0.15 0.16 | 5.0 × 11.0 × 17.5 | 1.2 | 44104 44114 44124 44134 44154 44164 | 1000 | 1100 | |
| 0.18 0.2 0.22 0.24 | 6.0 × 12.0 × 17.5 | 1.4 | 44184 44204 44224 44244 | 1000 | 900 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.27 0.3 0.33 | 7.0 × 13.5 × 17.5 | 1.9 | 44274 44304 44334 | 1000 | 800 | |
| 0.36 0.39 0.43 0.47 | 8.5 × 15.0 × 17.5 | 2.6 | 44364 44394 44434 44474 | 1000 | 650 | |
| Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.51 0.56 0.62 | 7.0 × 16.5 × 26.0 | 3.2 | 44514 44564 44624 | 200 | 550 | |
| 0.68 0.75 0.82 0.91 | 8.5 × 18.0 × 26.0 | 4.4 | 44684 44754 44824 44914 | 200 | 450 | |
| 1 1.1 1.2 | 10.0 × 19.5 × 26.0 | 5.5 | 44105 44115 44125 | 200 | 350 | |
| Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 1.3 1.5 1.6 | 11.0 × 21.0 × 31.0 | 7.8 | 44135 44155 44165 | 100 | | |
| 1.8 2 2.2 | 13.0 × 23.0 × 31.0 | 10.4 | 44185 44205 44225 | 100 | | |



| C (μF) | DIMENSIONS W x H x L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|------------------------|---------------------------------|-------------|---|------------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/- 0.5 \text{ mm}^{(1)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5 \%$ | LAST 5 DIGITS OF CATALOG NUMBER | | |
| 2.4 2.7 | 15.0 x 25.0 x 31.0 | 12.8 | 44245 44275 | 100 | | |
| 3 3.3 3.6 3.9 | 18.0 x 28.0 x 31.0 | 17.2 | 44305 44335 44365 44395 | 100 | | |

Note

1. $l_t = 4.0 + 1/- 0.5 \text{ mm}$ for pitch = 10 mm and $3.5 \pm 0.3 \text{ mm}$ for pitch = 15 mm; 22.5 mm and 27.5 mm.

SPECIFIC REFERENCE DATA (400 VDC)

| DESCRIPTION | VALUE | |
|--|--------------------------------------|--------------------------|
| | at 10 kHz | at 100 kHz |
| Tangent of loss angle: | | |
| 0.022 $\mu\text{F} < C \leq 0.027 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 15 \times 10^{-4}$ |
| 0.027 $\mu\text{F} < C \leq 0.075 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 20 \times 10^{-4}$ |
| 0.075 $\mu\text{F} < C \leq 0.11 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 25 \times 10^{-4}$ |
| 0.11 $\mu\text{F} < C \leq 0.18 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 30 \times 10^{-4}$ |
| 0.18 $\mu\text{F} < C \leq 0.3 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 35 \times 10^{-4}$ |
| 0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 40 \times 10^{-4}$ |
| 0.39 $\mu\text{F} < C \leq 0.56 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 45 \times 10^{-4}$ |
| 0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 50 \times 10^{-4}$ |
| 0.68 $\mu\text{F} < C \leq 0.82 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 55 \times 10^{-4}$ |
| 0.82 $\mu\text{F} < C \leq 0.91 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 60 \times 10^{-4}$ |
| 0.91 $\mu\text{F} < C \leq 1.0 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 65 \times 10^{-4}$ |
| 1.0 $\mu\text{F} < C \leq 1.2 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 70 \times 10^{-4}$ |
| 1.2 $\mu\text{F} < C \leq 1.3 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 75 \times 10^{-4}$ |
| 1.3 $\mu\text{F} < C \leq 1.5 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 80 \times 10^{-4}$ |
| 1.5 $\mu\text{F} < C \leq 1.6 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 85 \times 10^{-4}$ |
| 1.6 $\mu\text{F} < C \leq 1.8 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 90 \times 10^{-4}$ |
| 1.8 $\mu\text{F} < C \leq 2.0 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 95 \times 10^{-4}$ |
| Rated voltage pulse slope (dU/dt) _R : | | |
| l = 12.5 mm | 80 V/ μs | |
| l = 17.5 mm | 70 V/ μs | |
| l = 26.0 mm | 35 V/ μs | |
| l = 31.0 mm | 25 V/ μs (b < 15 mm) | |
| l = 31.0 mm | 13 V/ μs (b \geq 15 mm) | |
| R between leads for C $\leq 1.0 \mu\text{F}$ at 100 V; 1 minute | > 100000 M Ω | |
| RC between leads, for C > 1 μF at 100 V; 1 minute | > 100000 s | |
| R between interconnected leads and case; 100 V; 1 minute | > 100000 M Ω | |
| Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s | 640 V; 1 minute | |
| Withstanding (DC)voltage between leads and case | 2840 V; 1 minute | |



$U_{Rdc} = 400\text{ V}$; $U_{Rac} = 200\text{ V}$; $U_{p-p} = 560\text{ V}$

| C (μF) | DIMENSIONS W × H × L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | |
|--|---------------------------------|-------------|---|------|------|
| | | | LOOSE IN BOX | | REEL |
| | | | $l_t = 4.0 + 1.0/-0.5\text{ mm}^{(1)}$ | | SPQ |
| | | | C-tol = $\pm 5\%$ | SPQ | |
| | | | LAST 5 DIGITS OF CATALOG NUMBER | SPQ | SPQ |
| Pitch = $10.0 \pm 0.4\text{ mm}$; $d_t = 0.60 \pm 0.06\text{ mm}$ | | | | | |
| 0.022 | 4.0 × 10.0 × 12.5 | 0.6 | 54223 | 1000 | 1400 |
| 0.024 | | | 54243 | | |
| 0.027 | | | 54273 | | |
| 0.03 | | | 54303 | | |
| 0.033 | | | 54333 | | |
| 0.036 | 5.0 × 11.0 × 12.5 | 0.85 | 54363 | 1000 | 1100 |
| 0.039 | | | 54393 | | |
| 0.043 | | | 54433 | | |
| Pitch = $15.0 \pm 0.4\text{ mm}$; $d_t = 0.60 \pm 0.06\text{ mm}$ | | | | | |
| 0.047 | 5.0 × 11.0 × 17.5 | 1.2 | 54473 | 1000 | 1100 |
| 0.051 | | | 54513 | | |
| 0.056 | | | 54563 | | |
| 0.062 | | | 54623 | | |
| 0.068 | | | 54683 | | |
| 0.075 | | | 54753 | | |
| 0.082 | 54823 | | | | |
| 0.091 | 6.0 × 12.0 × 17.5 | 1.4 | 54913 | 1000 | 900 |
| 0.1 | | | 54104 | | |
| 0.11 | | | 54114 | | |
| 0.12 | | | 54124 | | |
| Pitch = $15.0 \pm 0.4\text{ mm}$; $d_t = 0.80 \pm 0.08\text{ mm}$ | | | | | |
| 0.13 | 7.0 × 13.5 × 17.5 | 1.9 | 54134 | 1000 | 800 |
| 0.15 | | | 54154 | | |
| 0.16 | | | 54164 | | |
| 0.18 | 8.5 × 15.0 × 17.5 | 2.6 | 54184 | 1000 | 650 |
| 0.2 | | | 54204 | | |
| 0.22 | | | 54224 | | |
| | | | | | |
| Pitch = $22.5 \pm 0.4\text{ mm}$; $d_t = 0.80 \pm 0.08\text{ mm}$ | | | | | |
| 0.24 | 7.0 × 16.5 × 26.0 | 3.2 | 54244 | 200 | 550 |
| 0.27 | | | 54274 | | |
| 0.3 | | | 54304 | | |
| 0.33 | 8.5 × 18.0 × 26.0 | 4.4 | 54334 | 200 | 450 |
| 0.36 | | | 54364 | | |
| 0.39 | | | 54394 | | |
| 0.43 | | | 54434 | | |
| 0.47 | | | 54474 | | |
| 0.51 | 10.0 × 19.5 × 26.0 | 5.5 | 54514 | 200 | 350 |
| 0.56 | | | 54564 | | |
| 0.62 | | | 54624 | | |
| Pitch = $27.5 \pm 0.4\text{ mm}$; $d_t = 0.80 \pm 0.08\text{ mm}$ | | | | | |
| 0.68 | 11.0 × 21.0 × 31.0 | 7.8 | 54684 | 100 | |
| 0.75 | | | 54754 | | |
| 0.82 | | | 54824 | | |



| C (μF) | DIMENSIONS W x H x L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | |
|------------------------|---------------------------------|-------------|---|-----|------|
| | | | LOOSE IN BOX | | REEL |
| | | | $l_t = 4.0 + 1.0/- 0.5 \text{ mm}^{(1)}$ | | SPQ |
| | | | C-tol = $\pm 5 \%$ | SPQ | |
| | | | LAST 5 DIGITS OF CATALOG NUMBER | SPQ | SPQ |
| 0.91 1 1.1 | 13.0 x 23.0 x 31.0 | 10.4 | 54914 54105 54115 | 100 | |
| 1.2 1.3 1.5 | 15.0 x 25.0 x 31.0 | 12.8 | 54125 54135 54155 | 100 | |
| 1.6 1.8 2 | 18.0 x 28.0 x 31.0 | 17.2 | 54165 54185 54205 | 100 | |

Note

1. $l_t = 4.0 + 1/- 0.5 \text{ mm}$ for pitch = 10 mm and $3.5 \pm 0.3 \text{ mm}$ for pitch = 15 mm; 22.5 mm and 27.5 mm.

SPECIFIC REFERENCE DATA (630 VDC)

| DESCRIPTION | VALUE | |
|--|--------------------------------------|--------------------------|
| | at 10 kHz | at 100 kHz |
| Tangent of loss angle: | | |
| 0.01 $\mu\text{F} \leq C \leq 0.027 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 15 \times 10^{-4}$ |
| 0.027 $\mu\text{F} < C \leq 0.075 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 20 \times 10^{-4}$ |
| 0.075 $\mu\text{F} < C \leq 0.11 \mu\text{F}$ | $\leq 5 \times 10^{-4}$ | $\leq 25 \times 10^{-4}$ |
| 0.11 $\mu\text{F} < C \leq 0.18 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 30 \times 10^{-4}$ |
| 0.18 $\mu\text{F} < C \leq 0.3 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 35 \times 10^{-4}$ |
| 0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 40 \times 10^{-4}$ |
| 0.39 $\mu\text{F} < C \leq 0.56 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 45 \times 10^{-4}$ |
| 0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 50 \times 10^{-4}$ |
| 0.68 $\mu\text{F} < C \leq 0.82 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 55 \times 10^{-4}$ |
| 0.82 $\mu\text{F} < C \leq 1.0 \mu\text{F}$ | $\leq 10 \times 10^{-4}$ | $\leq 60 \times 10^{-4}$ |
| Rated voltage pulse slope (dU/dt) _R | | |
| l = 12.5 mm | 100 V/ μs | |
| l = 17.5 mm | 90 V/ μs | |
| l = 26.0 mm | 45 V/ μs | |
| l = 31.0 mm | 30 V/ μs (b < 15 mm) | |
| l = 31.0 mm | 15 V/ μs (b \geq 15 mm) | |
| R between leads for C $\leq 1.0 \mu\text{F}$ at 500 V; 1 minute | > 100000 M Ω | |
| RC between leads, for C > 1 μF at 100 V; 1 minute | > 100000 s | |
| R between interconnected leads and case; 500 V; 1 minute | > 100000 M Ω | |
| Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s | 960 V; 1 minute | |
| Withstanding (DC)voltage between leads and case | 2840 V; 1 minute | |

MKP 379

Vishay BCcomponents

AC and Pulse Metallized Polypropylene
Film Capacitors MKP Radial Potted Type



$U_{Rdc} = 630 \text{ V}$; $U_{Rac} = 220 \text{ V}$; $U_{p-p} = 620 \text{ V}$

| C (μF) | DIMENSIONS W × H × L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|--|---------------------------------|-------------|--|------------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/-0.5 \text{ mm}^{(2)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5 \%$ | last 5 digits of catalog number | | |
| Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.01 0.011 0.012 0.013 0.015 0.016 | 4.0 × 10.0 × 12.5 | 0.6 | 64103 64113 64123 64133 64153 64163 | 1000 | 1400 | |
| 0.018 0.02 0.022 0.024 | 5.0 × 11.0 × 12.5 | 0.85 | 64183 64203 64223 64243 | 1000 | 1100 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$ | | | | | | |
| 0.027 0.03 0.033 0.036 0.039 | 5.0 × 11.0 × 17.5 | 1.2 | 64273 64303 64333 64363 64393 | 1000 | 1100 | |
| 0.043 0.047 0.051 0.056 0.062 | 6.0 × 12.0 × 17.5 | 1.4 | 64433 64473 64513 64563 64623 | 1000 | 900 | |
| Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.068 0.075 0.082 | 7.0 × 13.5 × 17.5 | 1.9 | 64683 64753 64823 | 1000 | 800 | |
| 0.091 0.1 0.11 | 8.5 × 15.0 × 17.5 | 2.6 | 64913 64104 64114 | 1000 | 650 | |
| Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.12 0.13 0.15 0.16 | 7.0 × 16.5 × 26.0 | 3.2 | 64124 64134 64154 64164 | 200 | 550 | |
| 0.18 0.2 0.22 | 8.5 × 18.0 × 26.0 | 4.4 | 64184 64204 64224 | 200 | 450 | |



AC and Pulse Metallized Polypropylene Film Capacitors MKP Radial Potted Type

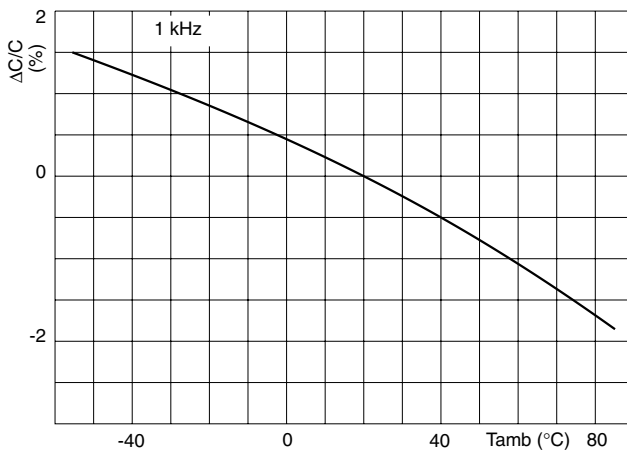
Vishay BCcomponents

| C (μF) | DIMENSIONS W × H × L (mm) | MASS (g) | CATALOG NUMBER 2222 379 AND PACKAGING | | | |
|---|---------------------------------|-------------|---|---------------------------------|------|-----|
| | | | LOOSE IN BOX | | REEL | |
| | | | $l_t = 4.0 + 1.0/-0.5 \text{ mm}^{(2)}$ | | SPQ | SPQ |
| | | | C-tol = $\pm 5\%$ | last 5 digits of catalog number | | |
| 0.24 0.27 0.3 | 10.0 × 19.5 × 26.0 | 5.5 | 64244 64274 64304 | 200 | 350 | |
| Pitch = 27.5 ± 0.4 mm; $d_t = 0.80 \pm 0.08 \text{ mm}$ | | | | | | |
| 0.33 0.36 0.39 0.43 | 11.0 × 21.0 × 31.0 | 7.8 | 64334 64364 64394 64434 | 100 | | |
| 0.47 0.51 0.56 | 13.0 × 23.0 × 31.0 | 10.4 | 64474 64514 64564 | 100 | | |
| 0.62 0.68 0.75 | 15.0 × 25.0 × 31.0 | 12.8 | 64624 64684 64754 | 100 | | |
| 0.82 0.91 1 | 18.0 × 28.0 × 31.0 | 17.2 | 64824 64914 64105 | 100 | | |

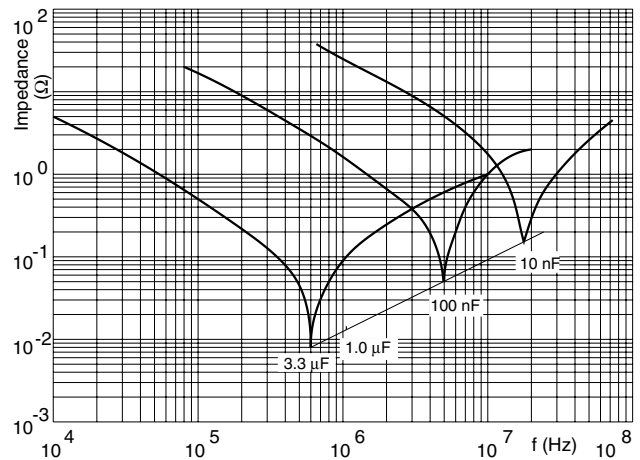
Note

- $U_{\text{Rac}} = 250 \text{ V}/U_{\text{p-p}} = 700 \text{ V}$ for $C > 0.11 \mu\text{F}$.
- $l_t = 4.0 + 1/-0.5 \text{ mm}$ for pitch = 10 mm and $3.5 \pm 0.3 \text{ mm}$ for pitch = 15 mm; 22.5 mm and 27.5 mm.

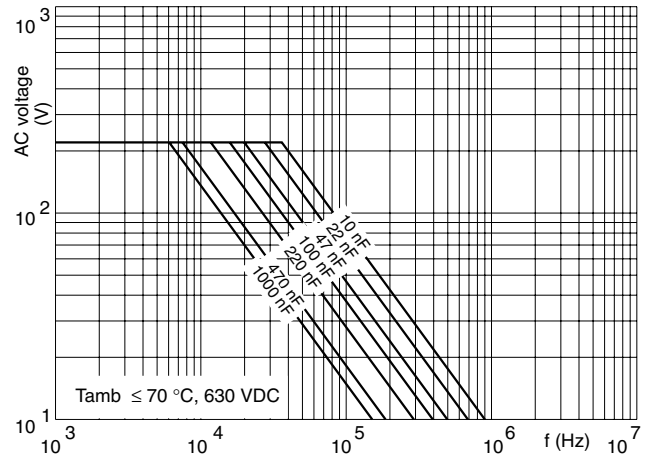
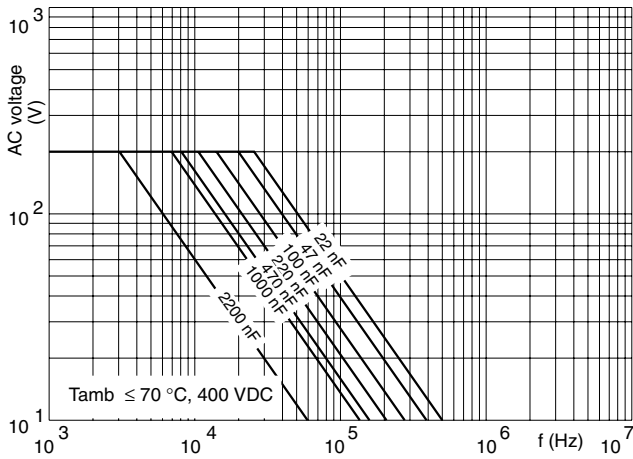
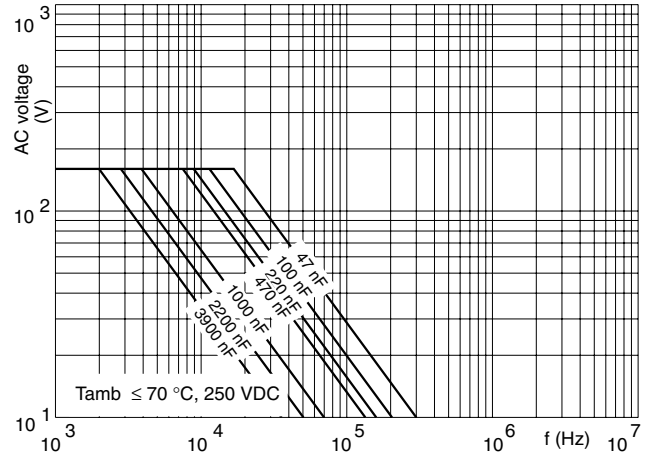
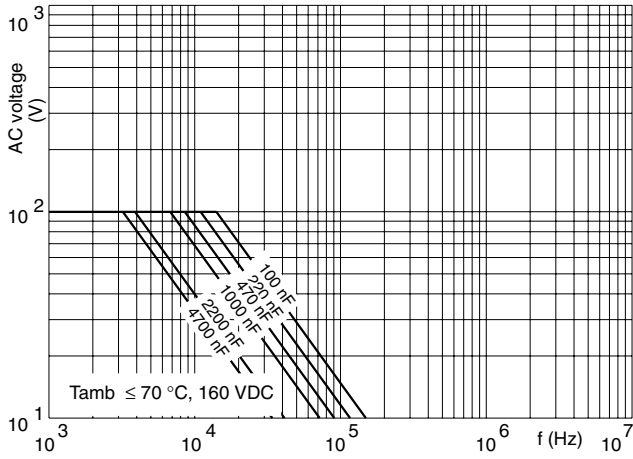
CAPACITANCE



IMPEDANCE



MAXIMUM RMS VOLTAGE (SENAWE) AS A FUNCTION OF FREQUENCY





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