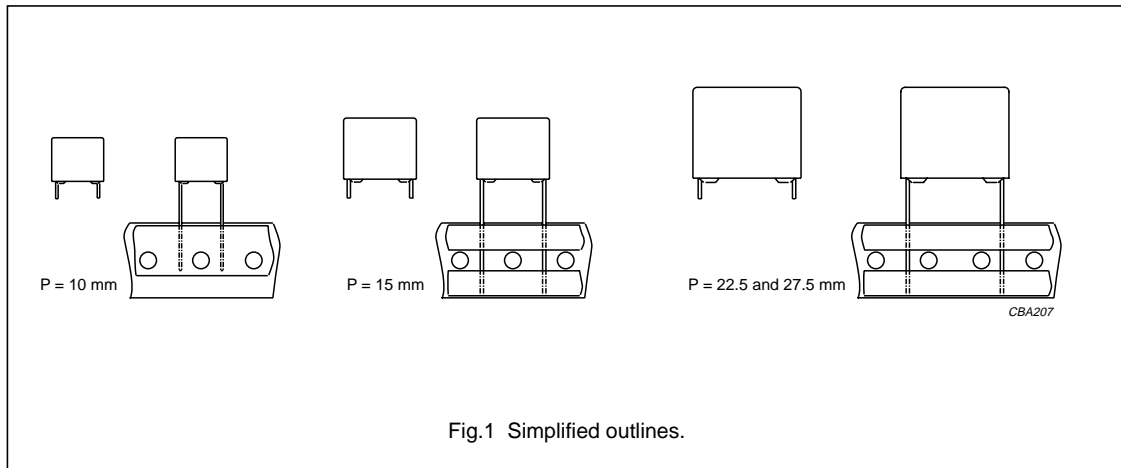


Metallized polycarbonate film capacitors

MKC 344

MKC RADIAL POTTED CAPACITORS

PITCH 10/15/22.5/27.5 mm



FEATURES

- 10 to 27.5 mm lead pitch
- Small dimensions for high density packaging
- Supplied loose in box and on tape.

APPLICATIONS

- In electronic circuits for blocking and coupling, bypass and energy reservoir applications.

DETAIL SPECIFICATION

For more detailed data and test requirements see "Type detail specification HQN-384-06/101".

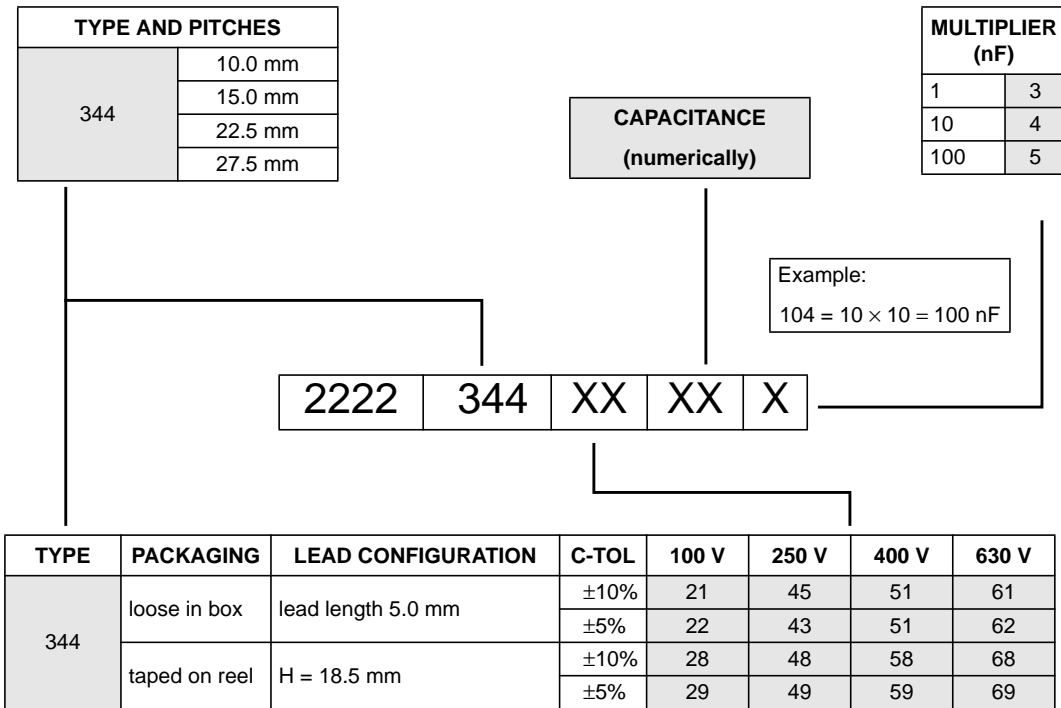
QUICK REFERENCE DATA

DESCRIPTION	VALUE
Capacitance range (E12 series)	0.01 to 6.8 μF
Capacitance tolerance	$\pm 10\%$; $\pm 5\%$
Rated (DC) voltage	100 V; 250 V; 400 V; 630 V
Climatic category	55/100/56
Rated temperature	85 °C
Maximum application temperature	100 °C
Tangent of loss angle at 10 kHz	20×10^{-4}
Reference specification	IEC 60384-6
Performance grade	grade 1 (long life)

Metallized polycarbonate film capacitors

MKC 344

COMPOSITION OF CATALOGUE NUMBER

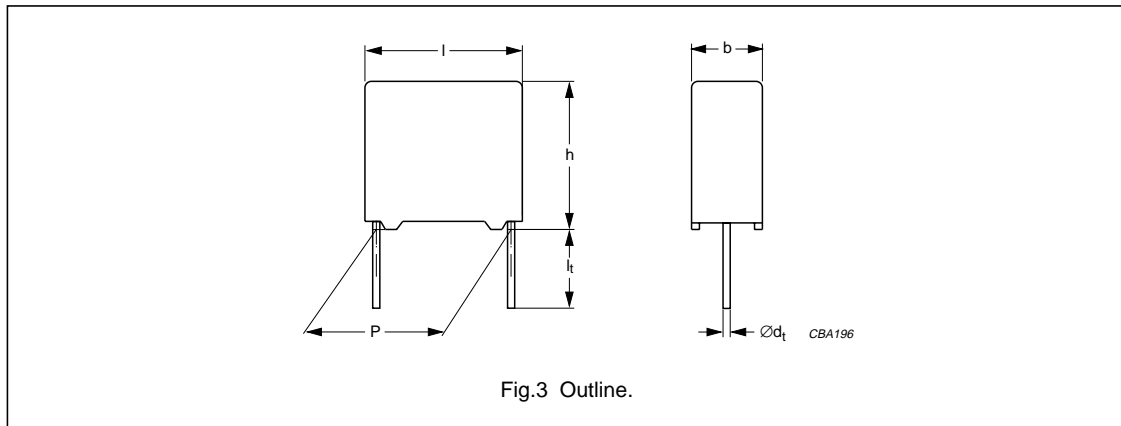


Metallized polycarbonate film capacitors

MKC 344

MKC 344 GENERAL DATA

PITCH 10/15/22.5/27.5 mm



Specific reference data for the 100 V DC capacitors

DESCRIPTION	VALUE		
	at 1 kHz	at 10 kHz	at 100 kHz
Tangent of loss angle: C ≤ 0.1 μF 0.1 μF < C ≤ 1.0 μF C > 1.0 μF	≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴	≤60 × 10 ⁻⁴ ≤60 × 10 ⁻⁴ ≤75 × 10 ⁻⁴	≤130 × 10 ⁻⁴ – –
Rated voltage pulse slope (dU/dt) _R at 100 V (DC): P = 10.0 mm P = 15.0 mm P = 22.5 mm P = 27.5 mm	60 V/μs 26 V/μs 12 V/μs 9 V/μs		
R between leads, for C ≤ 0.33 μF at 100 V; 1 minute	>15000 MΩ		
RC between leads, for C > 0.33 μF at 100 V; 1 minute	>5000 s		
R between interconnecting leads and case; 100 V; 1 minute	>30000 MΩ		
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	160 V; 1 minute		
Withstanding (DC) voltage between leads and case	200 V; 1 minute		

Available 100 V DC versions

PACKAGING ⁽¹⁾	DIMENSIONS	C-tol	FIRST 9 DIGITS OF CATALOGUE NUMBER	ORDERING
Loose in box	l _t = 5.0 ±1.0 mm	±10%	2222 344 21...	preferred
		±5%	2222 344 22...	on request
Taped on reel	H = 18.5 mm; note 2	±10%	2222 344 28...	on request
		±5%	2222 344 29...	on request

Notes

- For SPQ refer to this handbook, chapter "Packaging information"; taped on reel pitch = 27.5 mm is not available.
- H = in-tape height; for detailed specifications refer to this handbook, chapter "Packaging information".

Metallized polycarbonate film capacitors

MKC 344

 $U_{Rdc} = 100 \text{ V}$; $U_{Rac} = 63 \text{ V}$

C (μF)	DIMENSIONS $b \times h \times l$ (mm)	MASS (g)	CATALOGUE NUMBER ⁽¹⁾
			LOOSE IN BOX; $l_t = 5.0 \pm 1.0 \text{ mm}$
			C-tol = $\pm 10\%$
Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$			
0.082	4.0 × 10.0 × 12.5	0.7	2222 344 21823
0.1			2222 344 21104
0.12			2222 344 21124
0.15			2222 344 21154
0.18			2222 344 21184
0.22	5.0 × 11.0 × 12.5	0.9	2222 344 21224
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.27	5.0 × 11.0 × 17.5	1.1	2222 344 21274
0.33			2222 344 21334
0.39			2222 344 21394
0.47			2222 344 21474
0.56	6.0 × 12.0 × 17.5	1.4	2222 344 21564
0.68			2222 344 21684
0.82	7.0 × 13.5 × 17.5	1.8	2222 344 21824
1			2222 344 21105
Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
1.2	6.0 × 15.5 × 26.0	2.8	2222 344 21125
1.5			2222 344 21155
1.8	7.0 × 16.5 × 26.0	4.3	2222 344 21185
2.2	8.5 × 18.0 × 26.0	4.3	2222 344 21225
2.7		5.1	2222 344 21275
3.3	10.0 × 19.5 × 26.0	5.1	2222 344 21335
Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
3.9	11.0 × 21.0 × 31.0	7.4	2222 344 21395
4.7			2222 344 21475
5.6	13.0 × 23.0 × 31.0	10.2	2222 344 21565
6.8			2222 344 21685

Note

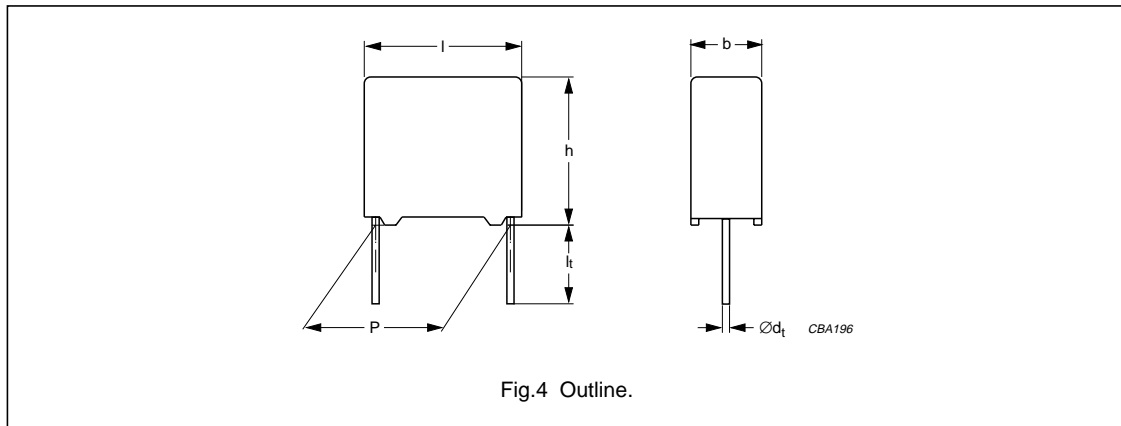
1. The shading indicates preferred types.

Metallized polycarbonate film capacitors

MKC 344

MKC 344 GENERAL DATA

PITCH 10/15/22.5/27.5 mm



Specific reference data for the 250 V DC capacitors

DESCRIPTION	VALUE		
	at 1 kHz	at 10 kHz	at 100 kHz
Tangent of loss angle: C ≤ 0.1 μF 0.1 μF < C ≤ 1.0 μF C > 1.0 μF	≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴	≤60 × 10 ⁻⁴ ≤60 × 10 ⁻⁴ ≤75 × 10 ⁻⁴	≤130 × 10 ⁻⁴ – –
Rated voltage pulse slope (dU/dt) _R at 250 V (DC): P = 10.0 mm P = 15.0 mm P = 22.5 mm P = 27.5 mm	90 V/μs 36 V/μs 16 V/μs 14 V/μs		
R between leads, for C ≤ 0.33 μF at 100 V; 1 minute	>30000 MΩ		
RC between leads, for C > 0.33 μF at 100 V; 1 minute	>10000 s		
R between interconnecting leads and case; 100 V; 1 minute	>30000 MΩ		
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	400 V; 1 minute		
Withstanding (DC) voltage between leads and case	500 V; 1 minute		

Available 250 V DC versions

PACKAGING ⁽¹⁾	DIMENSIONS	C-tol	FIRST 9 DIGITS OF CATALOGUE NUMBER	ORDERING
Loose in box	l _t = 5.0 ±1.0 mm	±10%	2222 344 45...	preferred
		±5%	2222 344 43...	on request
Taped on reel	H = 18.5 mm; note 2	±10%	2222 344 48...	on request
		±5%	2222 344 49...	on request

Notes

- For SPQ refer to this handbook, chapter "Packaging information"; taped on reel pitch = 27.5 mm is not available.
- H = in-tape height; for detailed specifications refer to this handbook, chapter "Packaging information".

Metallized polycarbonate film capacitors

MKC 344

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

C (μF)	DIMENSIONS $b \times h \times l$ (mm)	MASS (g)	CATALOGUE NUMBER ⁽¹⁾
			LOOSE IN BOX; $l_t = 5.0 \pm 1.0 \text{ mm}$
			C-tol = $\pm 10\%$
Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$			
0.039	4.0 × 10.0 × 12.5	0.7	2222 344 45393
0.047			2222 344 45473
0.056			2222 344 45563
0.068			2222 344 45683
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.082	5.0 × 11.0 × 17.5	1.1	2222 344 45823
0.1			2222 344 45104
0.12			2222 344 45124
0.15			2222 344 45154
0.18	6.0 × 12.0 × 17.5	1.4	2222 344 45184
0.22			2222 344 45224
0.27	7.0 × 13.5 × 17.5	1.8	2222 344 45274
0.33			2222 344 45334
Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.39	6.0 × 15.5 × 26.0	2.8	2222 344 45394
0.47			2222 344 45474
0.56	7.0 × 16.5 × 26.0	3.5	2222 344 45564
0.68			2222 344 45684
0.82	8.5 × 18.0 × 26.0	5.1	2222 344 45824
1			2222 344 45105
Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
1.2	9.0 × 19.0 × 31.0	7.4	2222 344 45125
1.5	11.0 × 21.0 × 31.0	7.4	2222 344 45155
1.8		10.2	2222 344 45185
2.2		10.2	2222 344 45225

Note

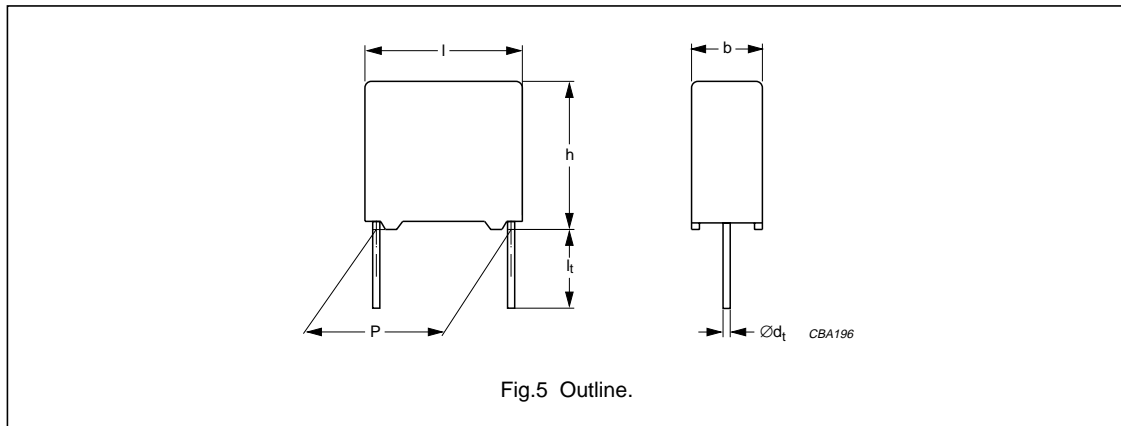
1. The shading indicates preferred types.

Metallized polycarbonate film capacitors

MKC 344

MKC 344 GENERAL DATA

PITCH 10/15/22.5/27.5 mm



Specific reference data for the 400 V DC capacitors

DESCRIPTION	VALUE		
	at 1 kHz	at 10 kHz	at 100 kHz
Tangent of loss angle: C ≤ 0.1 μF 0.1 μF < C ≤ 1.0 μF	≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴	≤60 × 10 ⁻⁴ ≤60 × 10 ⁻⁴	≤130 × 10 ⁻⁴ -
Rated voltage pulse slope (dU/dt) _R at 400 V (DC): P = 10.0 mm P = 15.0 mm P = 22.5 mm P = 27.5 mm		140 V/μs 60 V/μs 26 V/μs 22 V/μs	
R between leads, for C ≤ 0.33 μF at 100 V; 1 minute		>30000 MΩ	
RC between leads, for C > 0.33 μF at 100 V; 1 minute		>10000 s	
R between interconnecting leads and case; 100 V; 1 minute		>30000 MΩ	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		640 V; 1 minute	
Withstanding (DC) voltage between leads and case		800 V; 1 minute	

Available 400 V DC versions

PACKAGING ⁽¹⁾	DIMENSIONS	C-tol	FIRST 9 DIGITS OF CATALOGUE NUMBER	ORDERING
Loose in box	l _t = 5.0 ±1.0 mm	±10%	2222 344 51...	preferred
		±5%	2222 344 52...	on request
Taped on reel	H = 18.5 mm; note 2	±10%	2222 344 58...	on request
		±5%	2222 344 59...	on request

Notes

- For SPQ refer to this handbook, chapter "Packaging information"; taped on reel pitch = 27.5 mm is not available.
- H = in-tape height; for detailed specifications refer to this handbook, chapter "Packaging information".

Metallized polycarbonate film capacitors

MKC 344

 $U_{Rdc} = 400 \text{ V}$; $U_{Rac} = 220 \text{ V}$

C (μF)	DIMENSIONS $b \times h \times l$ (mm)	MASS (g)	CATALOGUE NUMBER ⁽¹⁾
			LOOSE IN BOX; $l_t = 5.0 \pm 1.0 \text{ mm}$
			C-tol = $\pm 10\%$
Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$			
0.01	4.0 × 10.0 × 12.5	0.7	2222 344 51103
0.012			2222 344 51123
0.015			2222 344 51153
0.018			2222 344 51183
0.022			2222 344 51223
0.027			2222 344 51273
0.033			2222 344 51333
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.039	5.0 × 11.0 × 17.5	1.1	2222 344 51393
0.047			2222 344 51473
0.056			2222 344 51563
0.068			2222 344 51683
0.082	6.0 × 12.0 × 17.5	1.4	2222 344 51823
0.1			2222 344 51104
0.12	7.0 × 13.5 × 17.5	1.8	2222 344 51124
0.15			2222 344 51154
Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.18	6.0 × 15.5 × 26.0	2.8	2222 344 51184
0.22			2222 344 51224
0.27	7.0 × 16.5 × 26.0	3.5	2222 344 51274
0.33	8.5 × 18.0 × 26.0	3.5	2222 344 51334
0.39		5.1	2222 344 51394
0.47	10.0 × 19.5 × 26.0	5.1	2222 344 51474
Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.56	11.0 × 21.0 × 31.0	7.4	2222 344 51564
0.68			2222 344 51684
0.82	13.0 × 23.0 × 31.0	10.2	2222 344 51824
1			2222 344 51105

Note

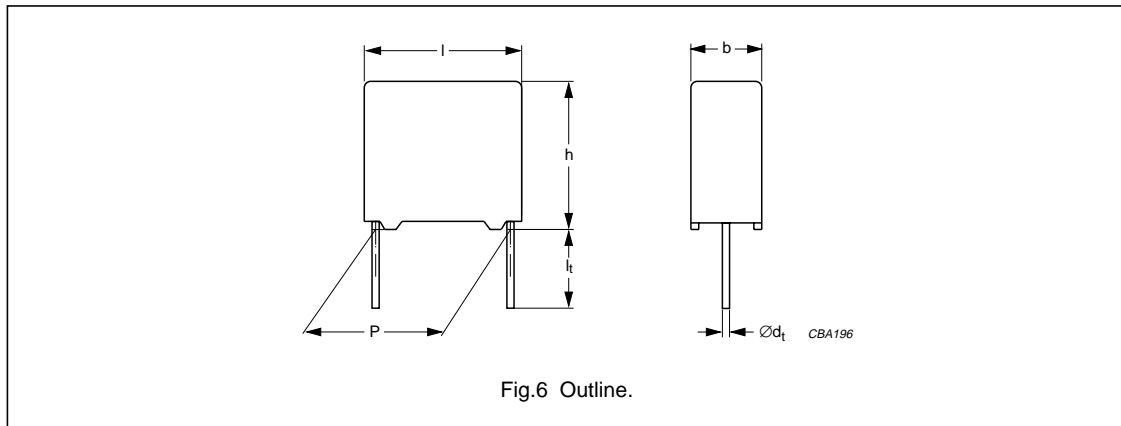
1. The shading indicates preferred types.

Metallized polycarbonate film capacitors

MKC 344

MKC 344 GENERAL DATA

PITCH 10/15/22.5/27.5 mm



Specific reference data for the 630 V DC capacitors

DESCRIPTION	VALUE		
	at 1 kHz	at 10 kHz	at 100 kHz
Tangent of loss angle: C ≤ 0.1 μF 0.1 μF < C ≤ 1.0 μF	≤30 × 10 ⁻⁴ ≤30 × 10 ⁻⁴	≤60 × 10 ⁻⁴ ≤60 × 10 ⁻⁴	≤130 × 10 ⁻⁴ -
Rated voltage pulse slope (dU/dt) _R at 630 V (DC): P = 10.0 mm P = 15.0 mm P = 22.5 mm P = 27.5 mm	200 V/μs 90 V/μs 36 V/μs 30 V/μs		
R between leads, for C ≤ 0.33 μF at 500 V; 1 minute	>30000 MΩ		
RC between leads, for C > 0.33 μF at 500 V; 1 minute	>10000 s		
R between interconnecting leads and case; 500 V; 1 minute	>30000 MΩ		
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	1018 V; 1 minute		
Withstanding (DC) voltage between leads and case	1260 V; 1 minute		

Available 630 V DC versions

PACKAGING ⁽¹⁾	DIMENSIONS	C-tol	FIRST 9 DIGITS OF CATALOGUE NUMBER	ORDERING
Loose in box	l _t = 5.0 ±1.0 mm	±10%	2222 344 61...	preferred
		±5%	2222 344 62...	on request
Taped on reel	H = 18.5 mm; note 2	±10%	2222 344 68...	on request
		±5%	2222 344 69...	on request

Notes

- For SPQ refer to this handbook, chapter "Packaging information"; taped on reel pitch = 27.5 mm is not available.
- H = in-tape height; for detailed specifications refer to this handbook, chapter "Packaging information".

Metallized polycarbonate film capacitors

MKC 344

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

C (μF)	DIMENSIONS $b \times h \times l$ (mm)	MASS (g)	CATALOGUE NUMBER ⁽¹⁾
			LOOSE IN BOX; $l_t = 5.0 \pm 1.0 \text{ mm}$
			C-tol = $\pm 10\%$
Pitch = $10.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$			
0.01	$4.0 \times 10.0 \times 12.5$	0.7	2222 344 61103
0.012	$5.0 \times 11.0 \times 12.5$	0.9	2222 344 61123
0.015			2222 344 61153
0.018			2222 344 61183
0.022	$6.0 \times 12.0 \times 12.5$	1.0	2222 344 61223
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.027	$5.0 \times 11.0 \times 17.5$	1.4	2222 344 61273
0.033	$6.0 \times 12.0 \times 17.5$	1.4	2222 344 61333
0.039		1.8	2222 344 61393
0.047		1.8	2222 344 61473
0.056	$7.0 \times 13.5 \times 17.5$	2.6	2222 344 61563
0.068	$8.5 \times 15.0 \times 17.5$	2.6	2222 344 61683
Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.082	$7.0 \times 16.5 \times 26.0$	2.8	2222 344 61823
0.1			2222 344 61104
0.12			2222 344 61124
0.15	$8.5 \times 18.0 \times 26.0$	3.5	2222 344 61154
0.18	$10.0 \times 19.5 \times 26.0$	5.1	2222 344 61184
0.22			2222 344 61224
Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$			
0.27	$11.0 \times 21.0 \times 31.0$	7.4	2222 344 61274
0.33			2222 344 61334
0.39	$13.0 \times 23.0 \times 31.0$	10.2	2222 344 61394
0.47			2222 344 61474

Note

1. The shading indicates preferred types.