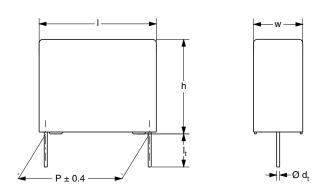


www.vishay.com

KP/MMKP 376

Vishay BCcomponents

AC and Pulse Metallized Polypropylene Film Capacitors KP/MMKP Radial Potted Type



Dimensions in mm

APPLICATIONS

Where high currents and steep pulses occur. Power supplies.

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 and aluminum foil

ENCAPSULATION

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

CONSTRUCTION

Internal serial construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES)

0.0047 µF to 0.27 µF

FEATURES

15 mm to 27.5 mm pitch. Supplied loose and taped on reel

Material categorization:

for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

CAPACITANCE TOLERANCE

± 5 %; ± 3.5 %

RATED (DC) VOLTAGE

630 V; 1000 V

RATED (AC) VOLTAGE

300 V; 400 V

RATED PEAK-TO-PEAK VOLTAGE

850 V; 1100 V

CLIMATIC CATEGORY

55/100/56

RATED TEMPERATURE

85 °C

MAXIMUM APPLICATION TEMPERATURE

100 °C

REFERENCE SPECIFICATIONS

IEC 60384-17

PERFORMANCE GRADE

Grade 1 (long life)

STABILITY GRADE

Grade 2

DETAIL SPECIFICATION

For more detailed data and test requirements see "*Type Detail Specification HQN-384-17/101*"



COMPLIANT

HALOGEN

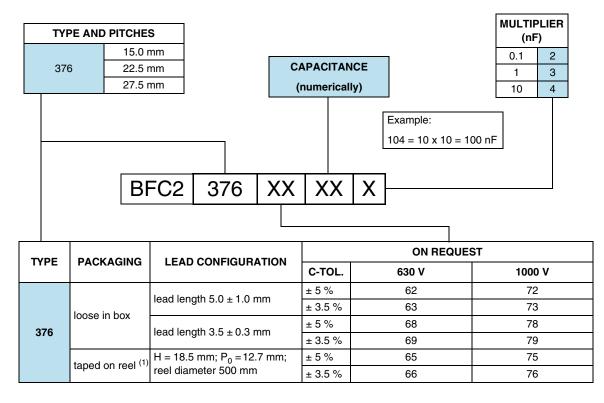
FREE GREEN

(5-2008)



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COMPOSITION OF CATALOG NUMBER



Note

⁽¹⁾ For detailed tape specification refer to "Packaging Information": <u>www.vishay.com/doc?28139</u>

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	V/	ALUE		
Tangent of loss angle:	at 10 kHz	at 100 kHz		
P = 15.0 mm	≤ 5 x 10 ⁻⁴	≤ 10 x 10 ⁻⁴		
P = 22.5 mm	≤6 x 10 ⁻⁴	≤ 15 x 10 ⁻⁴		
P = 27.5 mm	$\leq 7 \times 10^{-4}$ $\leq 20 \times 10^{-4}$			
Rated voltage pulse slope (dU/dt) _R :				
P = 15.0 mm	400	4000 V/µs		
P = 22.5 mm	1400 V/µs			
P = 27.5 mm	900 V/µs			
R between leads at 500 V; 1 min	> 100 000 MΩ			
R between interconnected leads and case; 500 V; 1 min	> 100 000 MΩ			
Ionization (AC) voltage (typical value) at 50 pC peak discharge	>	400 V		
Withstanding (DC) voltage (cut off current 10 mA) $^{(1)}$; rise time 1000 V/s	1008 V; 1 min			
Withstanding (DC) voltage between leads and case	2840 V; 1 min			

Note

⁽¹⁾ See "Voltage Proof Test for Metalized Film Capacitors": <u>www.vishay.com/doc?28169</u>



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$U_{RDC} = 630 \text{ V}; U_{RAC} = 300 \text{ V}; U_{P-P} = 850 \text{ V}$

C (μF)			CATALOG NUMBEF	PACKAGING	
	DIMENSIONS		LOOSE IN B	OX	REEL ⁽¹⁾ H = 18.5 mm
	DIMENSIONS W x H x L	MASS	l _t = 5.0 ± 1.0 mm	ALL LEADS	
	(mm)	(g) ⁽²⁾	C-tol. = ± 5 %		P ₀ = 12.7 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.	4 mm; d _t = 0.60 ± 0.06 mm				
0.0068			62682		
0.0075	5.0 x 11.0 x 17.5	1.1	62752	1000	1100
0.0082	3.0 × 11.0 × 17.5	1.1	62822	1000	1100
0.0091			62912		
0.010			62103		
0.011	C 0 · · 10 0 · · 17 F	4.5	62113	1000	000
0.012	6.0 x 12.0 x 17.5	1.5	62123	1000	900
0.013			62133		
	4 mm; d _t = 0.80 ± 0.08 mm	I			
0.015			62153		
0.016	7.0 x 13.5 x 17.5	2.0	62163	1000	800
0.018			62183		
0.020			62203		
0.022	8.5 x 15.0 x 17.5	2.6	62223	1000	650
	0.4 mm; d _t = 0.80 ± 0.08 mm		02220		
0.024	0.4 mm, u _t = 0.00 ± 0.00 mm		62243		
0.024	6.0 x 15.5 x 26.0	2.8	62273	300	600
0.027	0.0 x 15.5 x 20.0	2.0	62303	300	000
0.033	7.0 x 16.5 x 26.0	3.5	62333	200	550
0.036	7.0 X 16.5 X 26.0	3.5	62363	200	550
0.039		4.5	62393		
0.043		4.5	62433		
0.047	8.5 x 18.0 x 26.0	4.5	62473	200	450
0.051		4.5	62513		
0.056		5.1	62563		
	.4 mm; d _t = 0.80 ± 0.08 mm			1	
0.062			62623		
0.068	9.0 x 19.0 x 31.0	6.2	62683	100	
0.075			62753		
0.082			62823		
0.091	11.0 x 21.0 x 31.0	8.3	62913	100	
0.10		0.0	62104		
0.11			62114		
0.12			62124		
0.13	13.0 x 23.0 x 31.0	10.8	62134	100	
0.15	10.0 x 20.0 x 01.0	10.0	62154	100	
0.16			62164		
0.18		10.0	62184	100	
0.20	15.0 x 25.0 x 31.0	13.0	62204	100	
0.22			62224		
0.24	18.0 x 28.0 x 31.0	19.0	62244	100	
0.27			62274		

Notes

• SPQ = Standard Packing Quantity

(1) $H = in-tape height; P_0 = sprocket hole distance; for detailed specifications refer to packaging information$

⁽²⁾ Weight for short lead product only

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SPECIFIC REFERENCE DATA (1000 VDC)

DESCRIPTION	VA	LUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz	
P = 15.0 mm	≤ 5 x 10 ⁻⁴	≤ 10 x 10 ⁻⁴	
P = 22.5 mm	≤ 6 x 10 ⁻⁴	≤ 15 x 10 ⁻⁴	
P = 27.5 mm	≤ 8 x 10 ⁻⁴	≤ 20 x 10 ⁻⁴	
Rated voltage pulse slope (dU/dt) _R :			
P = 15.0 mm	7000 V/µs		
P = 22.5 mm	2500 V/µs		
P = 27.5 mm	1600 V/µs		
R between leads at 500 V; 1 min	> 100 000 MΩ		
R between interconnected leads and case; 500 V; 1 min	> 100 000 MΩ		
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 500 V		
Withstanding (DC) voltage (cut off current 10 mA) ⁽¹⁾ ; rise time 1000 V/s			
for $C \le 47 \text{ nF}$	1600 V; 1 min		
for C > 47 nF	[1, 6 - (0, 0364 · $\sqrt{C - 47}$)] x 1000 V; 1 min		
Withstanding (DC) voltage between leads and case	2840 V; 1 min		

Note

⁽¹⁾ See "Voltage Proof Test for Metalized Film Capacitors": <u>www.vishay.com/doc?28169</u>

U_{RDC} = 1000 V; U_{RAC} = 400 V; U_{P-P} = 1100 V

			CATALOG NUMBER BFC2 376 AND PACKAGING		
C (μF)			LOOSE IN B	OX	REEL ⁽¹⁾
	DIMENSIONS W x H x L	MASS	l _t = 5.0 ± 1.0 mm	ALL LEADS	H = 18.5 mm
	(mm)	(g) ⁽²⁾	C-tol. = ± 5 %		P ₀ = 12.7 mm SPQ
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	
Pitch = 15.0 ± 0.4	mm; d _t = 0.60 ± 0.06 mm				
0.0047			72472		
0.0051	5.0 x 11.0 x 17.5	1.1	72512	1000	1100
0.0056			72562		
0.0062			72622	-	
0.0068	C 0 + 10 0 + 17 F	4.5	72682	1000	000
0.0075	6.0 x 12.0 x 17.5	1.5	72752	1000	900
0.0082			72822		
Pitch = 15.0 ± 0.4	mm; d _t = 0.80 ± 0.08 mm				
0.0091			72912		
0.010			72103	1000	
0.011	7.0 x 13.5 x 17.5	2.0	72113	1000	800
0.012			72123		
Pitch = 22.5 ± 0.4	mm; d _t = 0.80 ± 0.08 mm				
0.013	6.0 x 15.5 x 26.0	2.8	72133	300	600
0.015			72153		
0.016	7.0 x 16.5 x 26.0	3.5	72163	200	550
0.018			72183		
0.020			72203		
0.022			72223		
0.024			72243		
0.027	8.5 x 18.0 x 26.0	4.5	72273	200	450
0.03			72303		
0.033			72333		
0.036			72363		
0.039	10.0 x 19.5 x 26.0	5.4	72393	200	350

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			CATALOG NUMBER BFC2 376 AND PACKAGING		
C W>			LOOSE IN BOX		REEL ⁽¹⁾
	DIMENSIONS W x H x L	MASS	l _t = 5.0 ± 1.0 mm	ALL LEADS	H = 18.5 mm P_0 = 12.7 mm SPQ
	(mm)	(g) ⁽²⁾	C-tol. = ± 5 %		
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	
Pitch = 27.5 ± 0	0.4 mm; d _t = 0.80 ± 0.08 mm				
0.043			72433		
0.047	9.0 x 19.0 x 31.0	6.2	72473	100	
0.051			72513		
0.056			72563		
0.062	11.0 x 21.0 x 31.0		72623	100	
0.068	11.0 x 21.0 x 31.0	8.3	72683	100	
0.075			72753		
0.082			72823		
0.091	13.0 x 23.0 x 31.0	10.8	72913	100	
0.10			72104		
0.11			72114		
0.12	15.0 05.0 01.0	10.0	72124	100	
0.13	15.0 x 25.0 x 31.0	13.0	72134	100	
0.15			72154		
0.16	10.0 00.0 01.0	10.0	72164	100	
0.18	18.0 x 28.0 x 31.0	19.0	72184	100	

Notes

• SPQ = Standard Packing Quantity

⁽¹⁾ H = in-tape height; P_0 = sprocket hole distance; for detailed specifications refer to packaging information

⁽²⁾ Weight for short lead product only



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