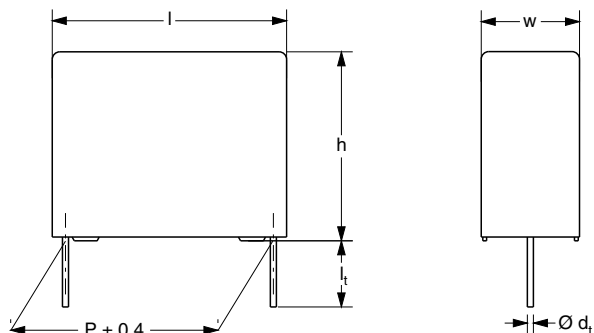




## AC and Pulse Metallized Polypropylene Film Capacitors KP/MMKP Radial Potted Type



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  $\mu$ F to 0.27  $\mu$ F

### FEATURES

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

Material categorization:  
for definitions of compliance please see  
[www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

### CAPACITANCE TOLERANCE

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

### 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

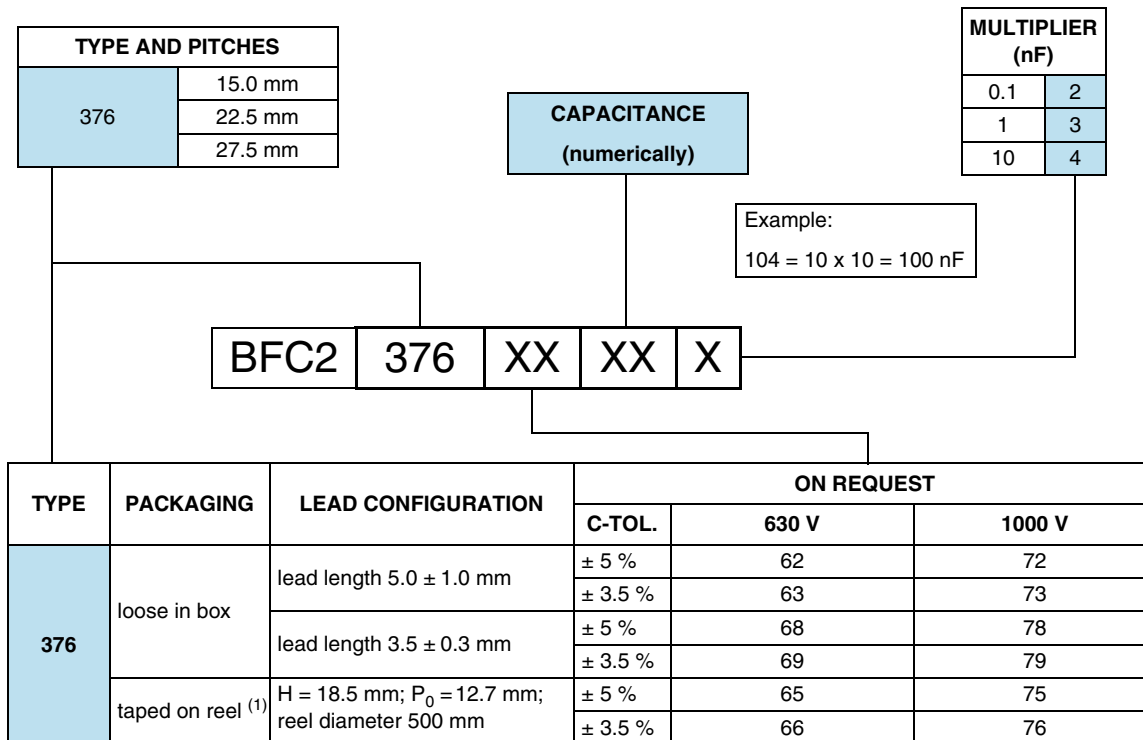
For more detailed data and test requirements see "Type  
Detail Specification HQN-384-17/101"



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)



## COMPOSITION OF CATALOG NUMBER



## Note

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

SPECIFIC REFERENCE DATA (630 V<sub>DC</sub>)

DESCRIPTION	VALUE	
Tangent of loss angle: P = 15.0 mm P = 22.5 mm P = 27.5 mm	at 10 kHz	at 100 kHz
	≤ 5 x 10 <sup>-4</sup>	≤ 10 x 10 <sup>-4</sup>
	≤ 6 x 10 <sup>-4</sup>	≤ 15 x 10 <sup>-4</sup>
	≤ 7 x 10 <sup>-4</sup>	≤ 20 x 10 <sup>-4</sup>
Rated voltage pulse slope (dU/dt) <sub>R</sub> : P = 15.0 mm P = 22.5 mm P = 27.5 mm	4000 V/μs	
	1400 V/μs	
	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) <sup>(1)</sup> ; rise time 1000 V/s	1008 V; 1 min	
Withstanding (DC) voltage between leads and case	2840 V; 1 min	

## Note

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


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

C (μF)	DIMENSIONS W x H x L (mm)	MASS (g) <sup>(2)</sup>	CATALOG NUMBER BFC2 376 ..... AND PACKAGING		
			LOOSE IN BOX		REEL <sup>(1)</sup> H = 18.5 mm P <sub>0</sub> = 12.7 mm
			l <sub>t</sub> = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol. = ± 5 %	SPQ	SPQ
			LAST 5 DIGITS OF CATALOG NUMBER		
Pitch = 15.0 ± 0.4 mm; d <sub>t</sub> = 0.60 ± 0.06 mm					
0.0068 0.0075 0.0082 0.0091	5.0 x 11.0 x 17.5	1.1	62682 62752 62822 62912	1000	1100
0.010 0.011 0.012 0.013	6.0 x 12.0 x 17.5	1.5	62103 62113 62123 62133	1000	900
Pitch = 15.0 ± 0.4 mm; d <sub>t</sub> = 0.80 ± 0.08 mm					
0.015 0.016 0.018	7.0 x 13.5 x 17.5	2.0	62153 62163 62183	1000	800
0.020 0.022	8.5 x 15.0 x 17.5	2.6	62203 62223	1000	650
Pitch = 22.5 0 ± 0.4 mm; d <sub>t</sub> = 0.80 ± 0.08 mm					
0.024 0.027 0.030	6.0 x 15.5 x 26.0	2.8	62243 62273 62303	300	600
0.033 0.036 0.039	7.0 x 16.5 x 26.0	3.5	62333 62363 62393	200	550
0.043 0.047 0.051 0.056	8.5 x 18.0 x 26.0	4.5 4.5 4.5 5.1	62433 62473 62513 62563	200	450
Pitch = 27.5 ± 0.4 mm; d <sub>t</sub> = 0.80 ± 0.08 mm					
0.062 0.068 0.075	9.0 x 19.0 x 31.0	6.2	62623 62683 62753	100	
0.082 0.091 0.10 0.11	11.0 x 21.0 x 31.0	8.3	62823 62913 62104 62114	100	
0.12 0.13 0.15 0.16	13.0 x 23.0 x 31.0	10.8	62124 62134 62154 62164	100	
0.18 0.20	15.0 x 25.0 x 31.0	13.0	62184 62204	100	
0.22 0.24 0.27	18.0 x 28.0 x 31.0	19.0	62224 62244 62274	100	

## Notes

- SPQ = Standard Packing Quantity

<sup>(1)</sup> H = in-tape height; P<sub>0</sub> = sprocket hole distance; for detailed specifications refer to packaging information

<sup>(2)</sup> Weight for short lead product only

SPECIFIC REFERENCE DATA (1000 V<sub>DC</sub>)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
P = 15.0 mm	$\leq 5 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 22.5 mm	$\leq 6 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
P = 27.5 mm	$\leq 8 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) <sub>R</sub> :		
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) <sup>(1)</sup> ; rise time 1000 V/s for C ≤ 47 nF for C > 47 nF	1600 V; 1 min [1, 6 - (0, 0364 · √C - 47)] x 1000 V; 1 min	
Withstanding (DC) voltage between leads and case	2840 V; 1 min	

## Note

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

**U<sub>RDC</sub> = 1000 V; U<sub>RAC</sub> = 400 V; U<sub>P-P</sub> = 1100 V**

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



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

**Notes**

- SPQ = Standard Packing Quantity

<sup>(1)</sup> H = in-tape height; P<sub>0</sub> = sprocket hole distance; for detailed specifications refer to packaging information

<sup>(2)</sup> Weight for short lead product only



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.