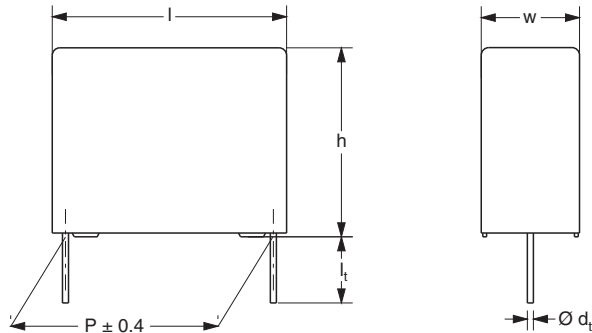




AC and Pulse Metallized Polypropylene Film Capacitors KP/MMKP Radial Potted Type



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 μ F to 0.27 μ 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

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

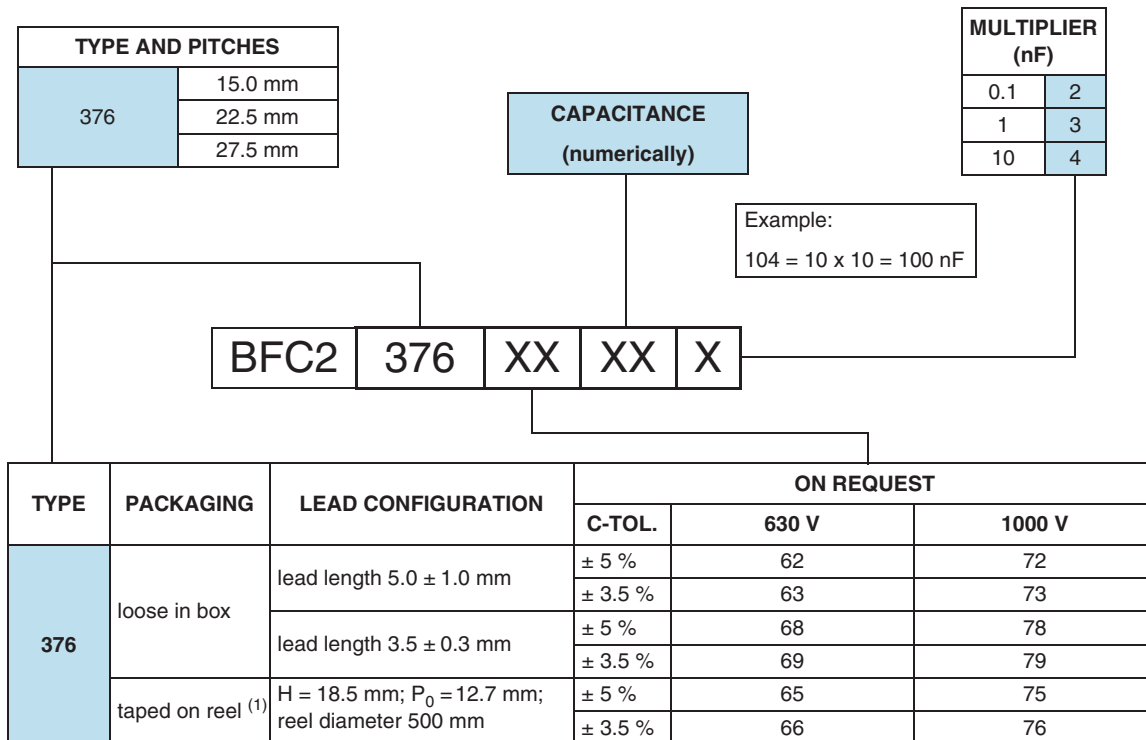
For more detailed data and test requirements see "Type
Detail Specification HQN-384-17/101"



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)



COMPOSITION OF CATALOG NUMBER



Note

⁽¹⁾ For detailed tape specification refer to “Packaging Information”: www.vishay.com/doc?28139

SPECIFIC REFERENCE DATA (630 V_{DC})

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 ⁻⁴	≤ 10 x 10 ⁻⁴
	≤ 6 x 10 ⁻⁴	≤ 15 x 10 ⁻⁴
	≤ 7 x 10 ⁻⁴	≤ 20 x 10 ⁻⁴
Rated voltage pulse slope (dU/dt) _R : 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) ⁽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”: 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) ⁽²⁾	CATALOG NUMBER BFC2 376 AND PACKAGING		
			LOOSE IN BOX		REEL ⁽¹⁾ H = 18.5 mm P ₀ = 12.7 mm
			$l_t = 5.0 \pm 1.0 \text{ mm}$	ALL LEADS	
			C-tol. = $\pm 5 \%$	SPQ	SPQ
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.60 \pm 0.06 \text{ mm}$					
0.0068	5.0 x 11.0 x 17.5	1.1	62682	1000	1100
0.0075			62752		
0.0082			62822		
0.0091			62912		
0.010	6.0 x 12.0 x 17.5	1.5	62103	1000	900
0.011			62113		
0.012			62123		
0.013			62133		
Pitch = $15.0 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$					
0.015	7.0 x 13.5 x 17.5	2.0	62153	1000	800
0.016			62163		
0.018			62183		
0.020	8.5 x 15.0 x 17.5	2.6	62203	1000	650
0.022			62223		
Pitch = $22.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$					
0.024	6.0 x 15.5 x 26.0	2.8	62243	300	600
0.027			62273		
0.030			62303		
0.033	7.0 x 16.5 x 26.0	3.5	62333	200	550
0.036			62363		
0.039			62393		
0.043	8.5 x 18.0 x 26.0	4.5	62433	200	450
0.047		4.5	62473		
0.051		4.5	62513		
0.056		5.1	62563		
Pitch = $27.5 \pm 0.4 \text{ mm}$; $d_t = 0.80 \pm 0.08 \text{ mm}$					
0.062	9.0 x 19.0 x 31.0	6.2	62623	100	
0.068			62683		
0.075			62753		
0.082	11.0 x 21.0 x 31.0	8.3	62823	100	
0.091			62913		
0.10			62104		
0.11			62114		
0.12	13.0 x 23.0 x 31.0	10.8	62124	100	
0.13			62134		
0.15			62154		
0.16			62164		
0.18	15.0 x 25.0 x 31.0	13.0	62184	100	
0.20			62204		
0.22	18.0 x 28.0 x 31.0	19.0	62224	100	
0.24			62244		
0.27			62274		

Notes

- SPQ = Standard Packing Quantity

⁽¹⁾ H = in-tape height; P₀ = sprocket hole distance; for detailed specifications refer to packaging information

⁽²⁾ Weight for short lead product only

SPECIFIC REFERENCE DATA (1000 V_{DC})

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle: P = 15.0 mm P = 22.5 mm P = 27.5 mm	$\leq 5 \times 10^{-4}$ $\leq 6 \times 10^{-4}$ $\leq 8 \times 10^{-4}$	$\leq 10 \times 10^{-4}$ $\leq 15 \times 10^{-4}$ $\leq 20 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) _R : P = 15.0 mm P = 22.5 mm P = 27.5 mm	7000 V/ μ s 2500 V/ μ s 1600 V/ μ s	
R between leads at 500 V; 1 min	> 100 000 M Ω	
R between interconnected leads and case; 500 V; 1 min	> 100 000 M Ω	
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 \leq 47 nF for C > 47 nF	1600 V; 1 min [1, 6 - (0, 0364 · $\sqrt{C - 47}$)] × 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": www.vishay.com/doc?28169

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

C (μ F)	DIMENSIONS W x H x L (mm)	MASS (g) ⁽²⁾	CATALOG NUMBER BFC2 376 AND PACKAGING		
			LOOSE IN BOX		REEL ⁽¹⁾ H = 18.5 mm P ₀ = 12.7 mm
			l _t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol. = ± 5 %	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 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_t = 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_t = 0.80 ± 0.08 mm					
0.013 0.015 0.016 0.018	6.0 x 15.5 x 26.0 7.0 x 16.5 x 26.0	2.8 3.5	72133 72153 72163 72183	300 200	600 550
0.020 0.022 0.024 0.027 0.03 0.033 0.036 0.039	8.5 x 18.0 x 26.0 10.0 x 19.5 x 26.0	4.5 5.4	72203 72223 72243 72273 72303 72333 72363 72393	200	450 350



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

Notes

- SPQ = Standard Packing Quantity

⁽¹⁾ H = in-tape height; P₀ = sprocket hole distance; for detailed specifications refer to packaging information

⁽²⁾ 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.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. 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.