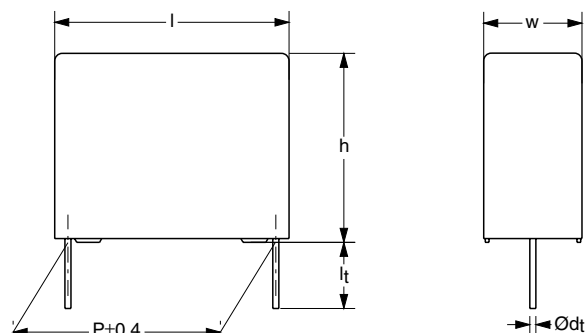


AC and Pulse Metallized Polypropylene Film Capacitors KP/MMKP Radial Potted Type



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 aluminium 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 to 0.27 μ F

FEATURES

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

Lead (Pb)-free product

RoHS-compliant product

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

for $C > 4.7$ nF: grade 1 (long life)

for $C \leq 4.7$ nF: grade 2

STABILITY GRADE

Grade 2

DETAIL SPECIFICATION

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



RoHS
COMPLIANT

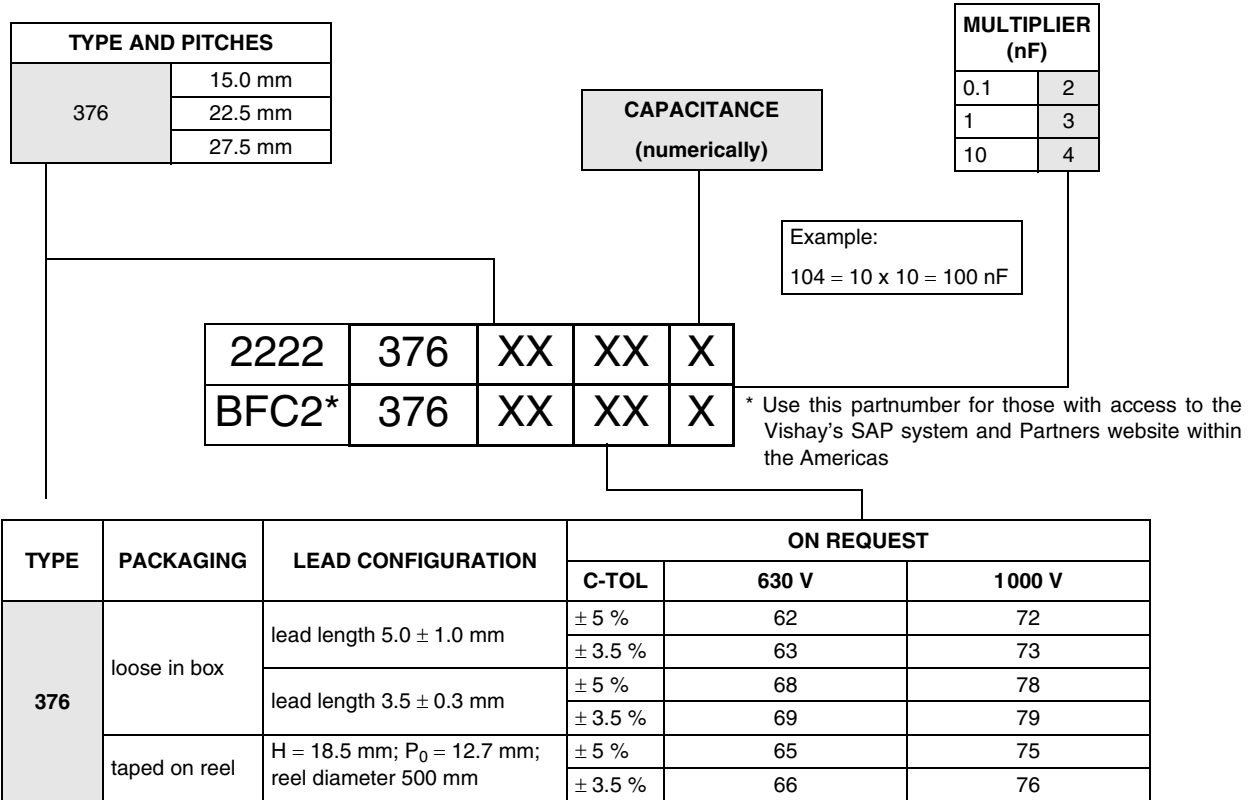
KP/MMKP 376

Vishay BCcomponents

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



COMPOSITION OF CATALOG NUMBER



SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle: P = 15.0 mm P = 22.5 mm P = 27.5 mm	at 10 kHz	at 100 kHz
	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
	$\leq 3 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
	$\leq 4 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) _R : P = 15.0 mm P = 22.5 mm P = 27.5 mm	4000 V/μs	
	1400 V/μs	
	900 V/μs	
R between leads at 500 V; 1 minute	> 100000 MΩ	
R between interconnected leads and case; 500 V; 1 minute	> 100000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 400 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	1008 V; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	



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

KP/MMKP 376

Vishay BCcomponents

$U_{Rdc} = 630 \text{ V}$; $U_{Rac} = 300 \text{ V}$; $U_{p-p} = 850 \text{ V}$

C (μF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 AND PACKAGING		
			LOOSE IN BOX		REEL
			l _t = 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 _t = 0.60 ± 0.06 mm					
0.0068 0.0075 0.0082 0.0091	5.0 × 11.0 × 17.5	1.1	62682 62752 62822 62912	1000	1100
0.01 0.011 0.012 0.013	6.0 × 12.0 × 17.5	1.5	62103 62113 62123 62133	1000	900
Pitch = 15.0 ± 0.4 mm; d _t = 0.80 ± 0.08 mm					
0.015 0.016 0.018	7.0 × 13.5 × 17.5	2.0	62153 62163 62183	1000	800
0.02 0.022	8.5 × 15.0 × 17.5	2.6	62203 62223	1000	650
Pitch = 22.5 ± 0.4 mm; d _t = 0.80 ± 0.08 mm					
0.024 0.027 0.03	6.0 × 15.5 × 26.0	2.8	62243 62273 62303	300	600
0.033 0.036 0.039	7.0 × 16.5 × 26.0	3.5	62333 62363 62393	200	550
0.043 0.047 0.051 0.056	8.5 × 18.0 × 26.0	4.5 4.5 4.5 5.1	62433 62473 62513 62563	200	450
Pitch = 27.5 ± 0.4 mm; d _t = 0.80 ± 0.08 mm					
0.062 0.068 0.075	9.0 × 19.0 × 31.0	6.2	62623 62683 62753	100	
0.082 0.091 0.1 0.11	11.0 × 21.0 × 31.0	8.3	62823 62913 62104 62114	100	
0.12 0.13 0.15 0.16	13.0 × 23.0 × 31.0	10.8	62124 62134 62154 62164	100	
0.18 0.2	15.0 × 25.0 × 31.0	13.0	62184 62204	100	
0.22 0.24 0.27	18.0 × 28.0 × 31.0	19.0	62224 62244 62274	100	

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
P = 15.0 mm	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 22.5 mm	$\leq 3 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
P = 27.5 mm	$\leq 3 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
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 minute	> 100000 MΩ	
R between interconnected leads and case; 500 V; 1 minute	> 100000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 500 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s for C ≤ 47 nF for C > 47 nF	1600 V; 1 minute [1, 6 - (0, 0364 · √C - 47)] × 1000V ; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 1000 V; U_{Rac} = 400 V/U_{p-p} = 1100 V

C (μF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 AND PACKAGING		
			LOOSE IN BOX		REEL
			l _t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol = ± 5 %	SPQ	
			LAST 5 DIGITS OF CATALOG NUMBER		
Pitch = 15.0 ± 0.4 mm; d _t = 0.60 ± 0.06 mm					
0.0047 0.0051 0.0056	5.0 × 11.0 × 17.5	1.1	72472 72512 72562	1000	1100
0.0062 0.0068 0.0075 0.0082	6.0 × 12.0 × 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 0.01 0.011 0.012	7.0 × 13.5 × 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	6.0 × 15.5 × 26.0	2.8	72133	300	600
0.015 0.016 0.018	7.0 × 16.5 × 26.0	3.5	72153 72163 72183	200	550



C (μF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 376 AND PACKAGING		
			LOOSE IN BOX		REEL
			l _t = 5.0 ± 1.0 mm	ALL LEADS	
			C-tol = ± 5 %	SPQ	
			LAST 5 DIGITS OF CATALOG NUMBER		
0.02 0.022 0.024 0.027 0.03 0.033 0.036	8.5 × 18.0 × 26.0	4.5	72203 72223 72243 72273 72303 72333 72363	200	450
0.039	10.0 × 19.5 × 26.0	5.4	72393	200	350
Pitch = 27.5 ± 0.4 mm; d _t = 0.80 ± 0.08 mm					
0.043 0.047 0.051	9.0 × 19.0 × 31.0	6.2	72433 72473 72513	100	
0.056 0.062 0.068 0.075	11.0 × 21.0 × 31.0	8.3	72563 72623 72683 72753	100	
0.082 0.091 0.1	13.0 × 23.0 × 31.0	10.8	72823 72913 72104	100	
0.11 0.12 0.13 0.15	15.0 × 25.0 × 31.0	13.0	72114 72124 72134 72154	100	
0.16 0.18	18.0 × 28.0 × 31.0	19.0	72164 72184	100	



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.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.