

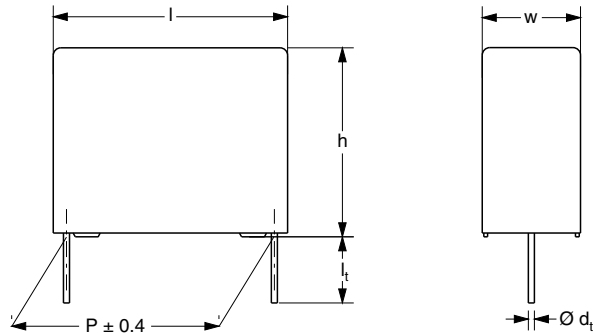


**THE DATASHEET OF  
BFC237668333**





## 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

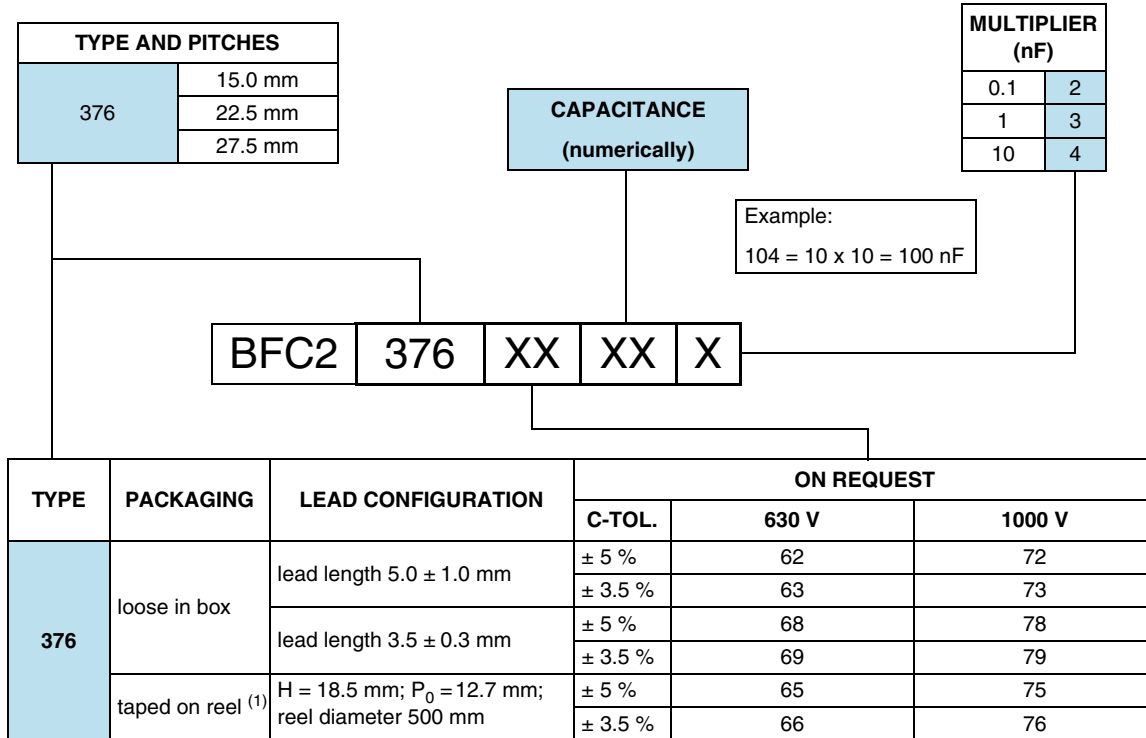
For more detailed data and test requirements see "Type Detail Specification HQN-384-17/101"



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	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
P = 15.0 mm	≤ 5 x 10 <sup>-4</sup>	≤ 10 x 10 <sup>-4</sup>
P = 22.5 mm	≤ 6 x 10 <sup>-4</sup>	≤ 15 x 10 <sup>-4</sup>
P = 27.5 mm	≤ 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	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) <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 ( $\mu\text{F}$ )	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
			$l_t = 5.0 \pm 1.0 \text{ mm}$	ALL LEADS	
			C-tol. = $\pm 5 \%$	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
<b>Pitch = <math>15.0 \pm 0.4 \text{ mm}</math>; <math>d_t = 0.60 \pm 0.06 \text{ mm}</math></b>					
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
<b>Pitch = <math>15.0 \pm 0.4 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>					
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
<b>Pitch = <math>22.5 \pm 0.4 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>					
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
<b>Pitch = <math>27.5 \pm 0.4 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>					
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	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
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	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
<b>Pitch = 15.0 ± 0.4 mm; d<sub>t</sub> = 0.60 ± 0.06 mm</b>					
0.0047	5.0 x 11.0 x 17.5	1.1	72472	1000	1100
0.0051			72512		
0.0056			72562		
0.0062	6.0 x 12.0 x 17.5	1.5	72622	1000	900
0.0068			72682		
0.0075			72752		
0.0082			72822		
<b>Pitch = 15.0 ± 0.4 mm; d<sub>t</sub> = 0.80 ± 0.08 mm</b>					
0.0091	7.0 x 13.5 x 17.5	2.0	72912	1000	800
0.010			72103		
0.011			72113		
0.012			72123		
<b>Pitch = 22.5 ± 0.4 mm; d<sub>t</sub> = 0.80 ± 0.08 mm</b>					
0.013	6.0 x 15.5 x 26.0	2.8	72133	300	600
0.015	7.0 x 16.5 x 26.0	3.5	72153	200	550
0.016			72163		
0.018			72183		
0.020	8.5 x 18.0 x 26.0	4.5	72203	200	450
0.022			72223		
0.024			72243		
0.027			72273		
0.03			72303		
0.033			72333		
0.036			72363		
0.039			10.0 x 19.5 x 26.0		



C ( $\mu$ F)	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
			$l_t = 5.0 \pm 1.0$ mm	ALL LEADS	
			C-tol. = $\pm 5$ %	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
Pitch = $27.5 \pm 0.4$ 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

<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



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