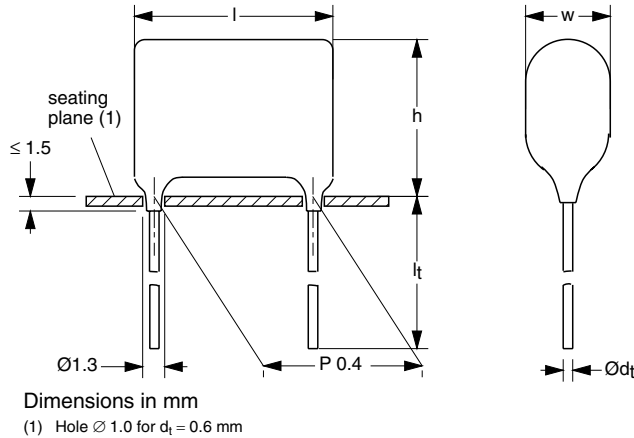




**THE DATASHEET OF  
BFC236968103**



# Metallized Polyester Film Capacitors MKT Radial Epoxy Lacquered Type


**FEATURES**

Available taped on reel and loose in box  
Lead (Pb)-free product  
RoHS-compliant product


**RoHS  
COMPLIANT**
**CAPACITANCE TOLERANCE**
 $\pm 10 \%$ ;  $\pm 5 \%$ 
**RATED (DC) VOLTAGE**

63 V; 100 V; 250 V; 400 V; 630 V

**RATED (AC) VOLTAGE**

40 V; 63 V; 160 V; 220 V; 250 V

**CLIMATIC CATEGORY**

55/105/56

**RATED TEMPERATURE**

85 °C

**MAXIMUM APPLICATION TEMPERATURE**

105 °C

**REFERENCE SPECIFICATIONS**

IEC 60384-2

**PERFORMANCE GRADE**

Grade 1 (long life)

**DETAIL SPECIFICATION**

For more detailed data and test requirements see "Type detail specification HQN-384-02/101"

**APPLICATIONS**

Blocking and coupling. Bypass and energy reservoir

**MARKING**

C-value; tolerance; rated voltage

**DIELECTRIC**

Polyester film

**ELECTRODES**

Vacuum deposited aluminium

**COATING**

Flame retardant epoxy material (UL-class 94 V-0)

**CONSTRUCTION**

Wound mono construction

**LEADS**

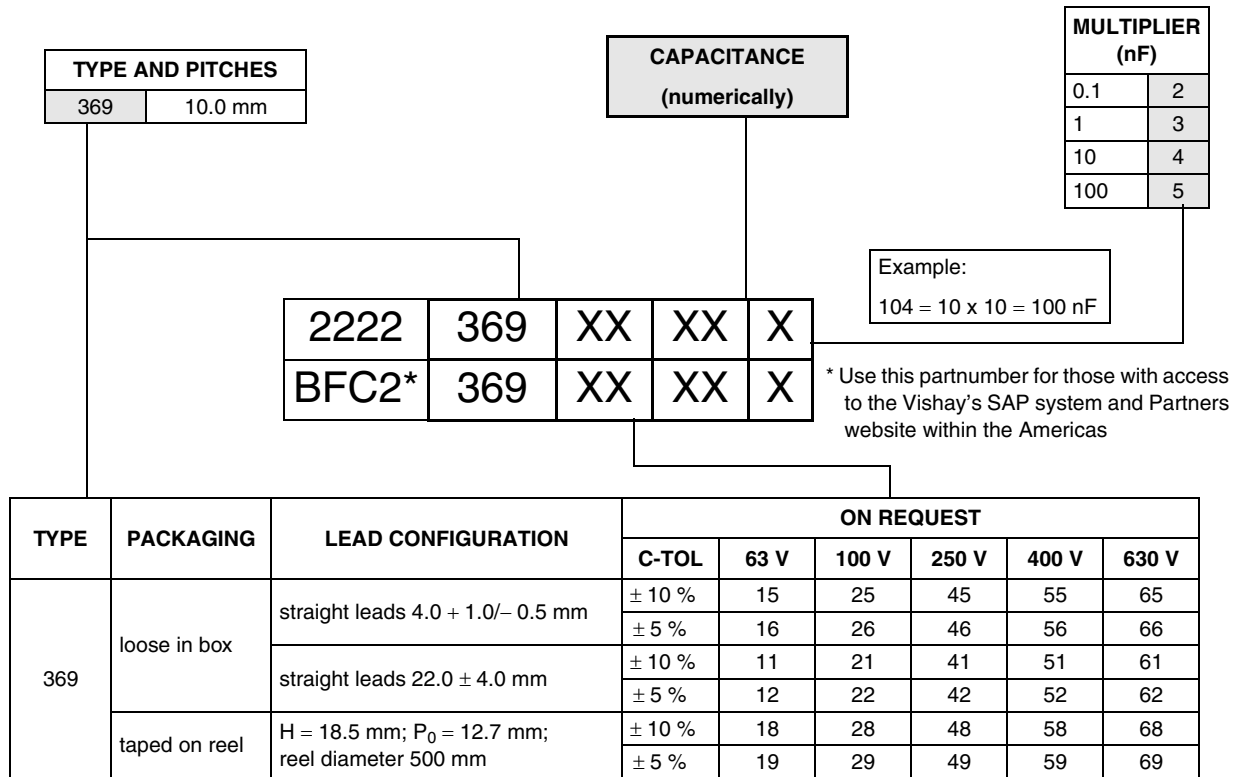
Tinned wire

**CAPACITANCE RANGE (E12 SERIES)**

0.001 to 1.0  $\mu\text{F}$



## COMPOSITION OF CATALOG NUMBER



## SPECIFIC REFERENCE DATA

DESCRIPTION	VALUE				
	at 1 kHz	at 10 kHz	at 100 kHz		
Tangent of loss angle:					
C ≤ 0.47 μF	≤ 75 × 10 <sup>-4</sup>	≤ 130 × 10 <sup>-4</sup>	≤ 300 × 10 <sup>-4</sup>		
0.47 μF < C ≤ 1.0 μF	≤ 75 × 10 <sup>-4</sup>	≤ 130 × 10 <sup>-4</sup>	≤ 225 × 10 <sup>-4</sup>		
C ≥ 0.1 μF	≤ 75 × 10 <sup>-4</sup>	≤ 130 × 10 <sup>-4</sup>	≤ 300 × 10 <sup>-4</sup>		
Rated voltage pulse slope (dU/dt) <sub>R</sub>	at 63 V (DC)	at 100 V (DC)	at 250 V (DC)	at 400 V (DC)	at 630 V (DC)
	30 V/μs	28 V/μs	70 V/μs	110 V/μs	70 V/μs
R between leads, for C ≤ 0.33 μF:					
at 10 V; 1 minute	> 15000 MΩ				
at 100 V; 1 minute		> 15000 MΩ	> 30000 MΩ	> 30000 MΩ	
at 500 V; 1 minute					> 30000 MΩ
RC between leads, for C > 0.33 μF:					
at 10 V; 1 minute	> 5000 s				
at 500 V; 1 minute					> 10000 s
R between interconnecting leads and casing:					
at 10 V; 1 minute	> 30000 MΩ				
at 100 V; 1 minute		> 30000 MΩ	> 30000 MΩ	> 30000 MΩ	
at 500 V; 1 minute					> 30000 MΩ
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	100 V; 1 minute	160 V; 1 minute	400 V; 1 minute	640 V; 1 minute	1008 V; 1 minute
Withstanding (DC) voltage between leads and case	200 V; 1 minute	200 V; 1 minute	500 V; 1 minute	800 V; 1 minute	1260 V; 1 minute



**U<sub>Rdc</sub> = 63 V; U<sub>Rac</sub> = 40 V**

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 369 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5$ mm		$l_t = 22.0 \pm 4.0$ mm	
			C-tol = $\pm 10$ %	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = 10.0 <math>\pm</math> 0.4 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>						
0.22	4.2 $\times$ 9.3 $\times$ 12.5	0.4	15224	2000	1000	1300
0.27	3.8 $\times$ 9.0 $\times$ 12.5	0.4	15274	2000	1000	1300
0.33	4.1 $\times$ 9.3 $\times$ 12.5	0.4	15334	2000	1000	1300
0.39	4.0 $\times$ 9.2 $\times$ 12.5	0.4	15394	2000	1000	1300
0.47	4.3 $\times$ 9.5 $\times$ 12.5	0.5	15474	2000	1000	1200
0.56	4.7 $\times$ 9.8 $\times$ 12.5	0.5	15564	2000	1000	1200
0.68	5.1 $\times$ 10.2 $\times$ 12.5	0.5	15684	2000	1000	1100
0.82	5.5 $\times$ 10.7 $\times$ 12.5	0.6	15824	2000	1000	1000
1	6.0 $\times$ 11.1 $\times$ 12.5	0.7	15105	2000	1000	900

**U<sub>Rdc</sub> = 100 V; U<sub>Rac</sub> = 63 V**

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 369 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5$ mm		$l_t = 22.0 \pm 4.0$ mm	
			C-tol = $\pm 10$ %	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = 10.0 <math>\pm</math> 0.4 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>						
0.056	4.0 $\times$ 9.1 $\times$ 12.5	0.4	25563	2000	1000	1500
0.068			25683			
0.082	3.7 $\times$ 8.8 $\times$ 12.5	0.4	25823	2000	1000	1500
0.1	4.0 $\times$ 9.0 $\times$ 12.5	0.4	25104	2000	1000	1500
0.12	4.3 $\times$ 9.3 $\times$ 12.5	0.4	25124	2000	1000	1500
0.15	3.9 $\times$ 8.9 $\times$ 12.5	0.4	25154	2000	1000	1500
0.18	4.2 $\times$ 9.2 $\times$ 12.5	0.5	25184	2000	1000	1300
0.22	4.5 $\times$ 9.4 $\times$ 12.5	0.5	25224	2000	1000	1200

**U<sub>Rdc</sub> = 250 V; U<sub>Rac</sub> = 160 V**

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 369 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5$ mm		$l_t = 22.0 \pm 4.0$ mm	
			C-tol = $\pm 10$ %	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = 10.0 <math>\pm</math> 0.4 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>						
0.027	4.2 $\times$ 8.7 $\times$ 12.5	0.4	45273	2000	1000	1500
0.033	4.6 $\times$ 8.8 $\times$ 12.5	0.5	45333	2000	1000	1300
0.039	4.0 $\times$ 8.8 $\times$ 12.5	0.4	45393	2000	1000	1500
0.047	4.5 $\times$ 9.0 $\times$ 12.5	0.5	45473	2000	1000	1500
0.056	4.6 $\times$ 8.8 $\times$ 12.5	0.5	45563	2000	1000	1300
0.068	4.6 $\times$ 9.2 $\times$ 12.5	0.5	45683	2000	1000	1300
0.082	4.4 $\times$ 9.4 $\times$ 12.5	0.5	45823	2000	1000	1200
0.1	4.7 $\times$ 9.7 $\times$ 12.5	0.5	45104	2000	1000	1200



$U_{Rdc} = 400\text{ V}$ ;  $U_{Rac} = 220\text{ V}$

C ( $\mu\text{F}$ )	DIMENSIONS $w_{\text{max}} \times h_{\text{max}} \times l_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 369 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5\text{ mm}$		$l_t = 22.0 \pm 4.0\text{ mm}$	
			C-tol = $\pm 10\%$	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = <math>10.0 \pm 0.4\text{ mm}</math>; <math>d_t = 0.60 \pm 0.06\text{ mm}</math></b>						
0.001	$4.5 \times 8.7 \times 12.5$	0.5	55102	2000	1000	1500
0.0012	$4.5 \times 9.0 \times 12.5$	0.5	55122	2000	1000	1500
0.0015	$4.5 \times 8.8 \times 12.5$	0.5	55152	2000	1000	1500
0.0018	$4.5 \times 8.7 \times 12.5$	0.5	55182	2000	1000	1500
0.0022	$4.0 \times 8.6 \times 12.5$	0.5	55222	2000	1000	1500
0.0027	$4.3 \times 8.9 \times 12.5$	0.5	55272	2000	1000	1500
0.0033	$4.6 \times 9.1 \times 12.5$	0.5	55332	2000	1000	1500
0.0039	$4.0 \times 8.7 \times 12.5$	0.5	55392	2000	1000	1500
0.0047	$4.1 \times 8.8 \times 12.5$	0.5	55472	2000	1000	1500
0.0056	$4.6 \times 9.1 \times 12.5$	0.5	55562	2000	1000	1500
0.0068			55682			
0.0082			55822			
0.01			55103			
0.012	$4.0 \times 8.7 \times 12.5$	0.5	55123	2000	1000	1500
0.015	$4.1 \times 8.8 \times 12.5$	0.5	55153	2000	1000	1500
0.018	$4.4 \times 8.8 \times 12.5$	0.5	55183	2000	1000	1300
0.022	$4.2 \times 8.8 \times 12.5$	0.5	55223	2000	1000	1500
0.027	$4.2 \times 9.1 \times 12.5$	0.5	55273	2000	1000	1300
0.033	$4.6 \times 9.4 \times 12.5$	0.5	55333	2000	1000	1300

$U_{Rdc} = 630\text{ V}$ ;  $U_{Rac} = 250\text{ V}$

C ( $\mu\text{F}$ )	DIMENSIONS $w_{\text{max}} \times h_{\text{max}} \times l_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 369 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5\text{ mm}$		$l_t = 22.0 \pm 4.0\text{ mm}$	
			C-tol = $\pm 10\%$	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = <math>10.0 \pm 0.4\text{ mm}</math>; <math>d_t = 0.60 \pm 0.06\text{ mm}</math></b>						
0.01	$4.1 \times 8.7 \times 12.5$	0.4	65103	2000	1000	1300
0.012	$4.4 \times 8.9 \times 12.5$	0.5	65123	2000	1000	1200
0.015	$4.9 \times 9.2 \times 12.5$	0.5	65153	2000	1000	1100
0.018	$5.3 \times 9.5 \times 12.5$	0.6	65183	2000	1000	1000
0.022	$5.9 \times 9.9 \times 12.5$	0.7	65223	2000	1000	900



## **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.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View BFC236968103 on WIN SOURCE](#)

 [Vishay Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management