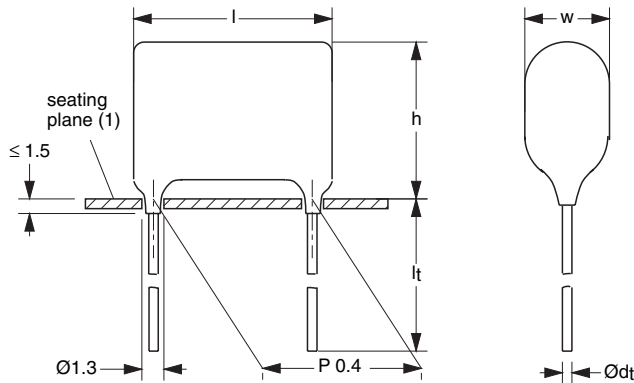


# Metallized Polyester Film Capacitors

## MKT Radial Epoxy Lacquered Type



Dimensions in mm  
 (1) Hole  $\varnothing$  1.0 for  $d_t = 0.6$  mm

### APPLICATIONS

Blocking and coupling. Bypass and energy reservoir

### MARKING

C-value; tolerance; rated voltage; manufacturer's symbol; code for dielectric material and construction

### DIELECTRIC

Polyester film

### ELECTRODES

Vacuum deposited aluminum

### 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  $\mu$ F

### FEATURES

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

### CAPACITANCE TOLERANCE

$\pm 10\%$ ;  $\pm 5\%$

### RATED (DC) VOLTAGE

100 V; 250 V; 400 V; 630 V

### RATED (AC) VOLTAGE

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)

### MATERIALS

Qualified in accordance with UL94 V-0

### DETAIL SPECIFICATION

For more detailed data and test requirements contact:  
[filmcaps.roeselare@vishay.com](mailto:filmcaps.roeselare@vishay.com)



**RoHS**  
COMPLIANT

## COMPOSITION OF CATALOG NUMBER

TYPE AND PITCHES	
469	10.0 mm

**CAPACITANCE**  
(numerically)

MULTIPLIER (nF)	
0.1	2
1	3
10	4
100	5

2222	469	XX	XX	X
BFC2*	469	XX	XX	X

Example:  
104 = 10 x 10 = 100 nF

\* Use this partnumber for those with access to the Vishay's SAP system and Partners website within the Americas

TYPE	PACKAGING	LEAD CONFIGURATION	ON REQUEST				
			C-TOL	100 V	250 V	400 V	630 V
MKT 469	loose in box	lead length 4.0+ 1.0/- 0.5 mm	± 10 %	25	45	55	65
			± 5 %	26	46	56	66
		lead length 22.0 ± 4.0 mm	± 10 %	21	41	51	61
			± 5 %	22	42	52	62
	taped on reel	H = 18.5 mm; P <sub>0</sub> = 12.7 mm; reel diameter = 500 mm	± 10 %	28	48	58	68
			± 5 %	29	49	59	69

## SPECIFIC REFERENCE DATA

DESCRIPTION	VALUE			
	at 1 kHz	at 10 kHz	at 100 kHz	
Tangent of loss angle:				
C ≤ 0.1 μF	≤ 75 × 10 <sup>-4</sup>	≤ 120 × 10 <sup>-4</sup>	≤ 200 × 10 <sup>-4</sup>	
0.1 μF < C ≤ 0.47 μF	≤ 75 × 10 <sup>-4</sup>	≤ 120 × 10 <sup>-4</sup>	≤ 225 × 10 <sup>-4</sup>	
0.47 μF < C ≤ 1.0 μF	≤ 75 × 10 <sup>-4</sup>	≤ 120 × 10 <sup>-4</sup>	-	
Rated voltage pulse slope (dU/dt) <sub>R</sub> at 100 V (DC)	at 100 V (DC)	at 250 V (DC)	at 400 V (DC)	at 630 V (DC)
	30 V/μs	120 V/μs	170 V/μs	120 V/μs
R between leads, for C ≤ 0.33 μF:				
at 100 V; 1 minute		> 30000 MΩ	> 30000 MΩ	
at 500 V; 1 minute				> 30000 MΩ
RC between leads, for C > 0.33 μF at 100 V; 1 minute	> 5000 s			
R between interconnecting leads and casing; 100 V; 1 minute	> 30000 MΩ	> 30000 MΩ	> 30000 MΩ	> 30000 MΩ
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	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	500 V; 1 minute	800 V; 1 minute	1260 V; 1 minute



Metallized Polyester Film Capacitors Vishay BCcomponents  
MKT Radial Epoxy Lacquered Type

$U_{Rdc} = 100\text{ V}$ ;  $U_{Rac} = 63\text{ V}$

C ( $\mu\text{F}$ )	DIMENSIONS $w_{\text{max}} \times h_{\text{max}} \times l_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 469 ..... 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>						
0.056	4.0 × 11.0 × 12.5	0.4	25563	2000	1500	1500
0.068			25683			
0.082			25823			
0.1			25104			
0.12	4.3 × 11.3 × 12.5	0.5	25124	2000	1500	1500
0.15	3.9 × 10.9 × 12.5	0.4	25154	2000	1500	1500
0.18	4.2 × 11.2 × 12.5	0.4	25184	2000	1500	1500
0.22	4.5 × 11.5 × 12.5	0.5	25224	2000	1500	1300
0.27	4.2 × 11.2 × 12.5	0.4	25274	2000	1500	1500
0.33	4.6 × 11.6 × 12.5	0.5	25334	2000	1500	1300
0.39	4.0 × 11.0 × 12.5	0.4	25394	2000	1500	1500
0.47	4.2 × 11.2 × 12.5	0.4	25474	2000	1500	1500
0.56	4.6 × 11.6 × 12.5	0.5	25564	2000	1500	1300
0.68	5.0 × 12.0 × 12.5	0.5	25684	1500	1250	1200
0.82	5.5 × 12.5 × 12.5	0.6	25824	1500	1000	1100
1.0	6.0 × 13.0 × 12.5	0.6	25105	1250	1000	1000

$U_{Rdc} = 250\text{ V}$ ;  $U_{Rac} = 160\text{ V}$

C ( $\mu\text{F}$ )	DIMENSIONS $w_{\text{max}} \times h_{\text{max}} \times l_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 469 ..... 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>						
0.027	4.2 × 11.2 × 12.5	0.4	45273	2000	1500	1500
0.033	4.6 × 11.6 × 12.5	0.5	45333	2000	1500	1300
0.039	4.0 × 11.0 × 12.5	0.4	45393	2000	1500	1500
0.047	4.1 × 11.1 × 12.5	0.4	45473	2000	1500	1500
0.056	4.0 × 11.0 × 12.5	0.4	45563	2000	1500	1500
0.068	4.1 × 11.1 × 12.5	0.4	45683	2000	1500	1500
0.082	4.4 × 11.4 × 12.5	0.5	45823	2000	1500	1500
0.1	4.0 × 11.0 × 12.5	0.4	45104	2000	1500	1500
0.12	4.3 × 11.3 × 12.5	0.5	45124	2000	1500	1500
0.15	4.8 × 11.8 × 12.5	0.5	45154	2000	1250	1300
0.18	5.2 × 12.2 × 12.5	0.5	45184	1500	1000	1200
0.22	5.8 × 12.8 × 12.5	0.6	45224	1500	1000	1100

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

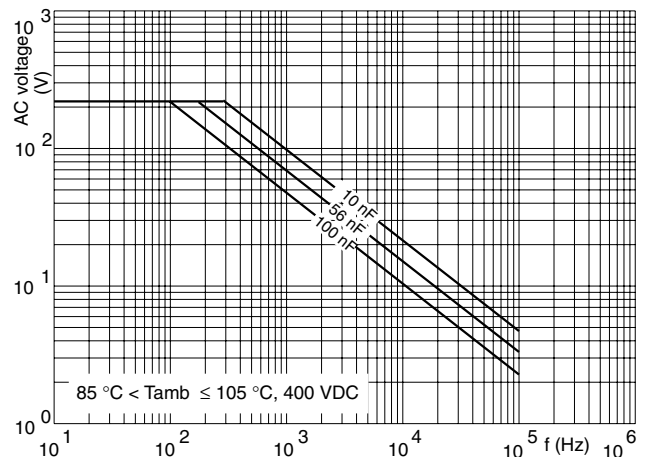
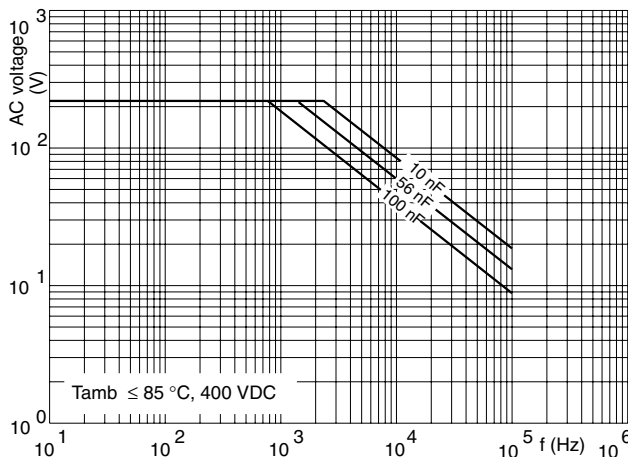
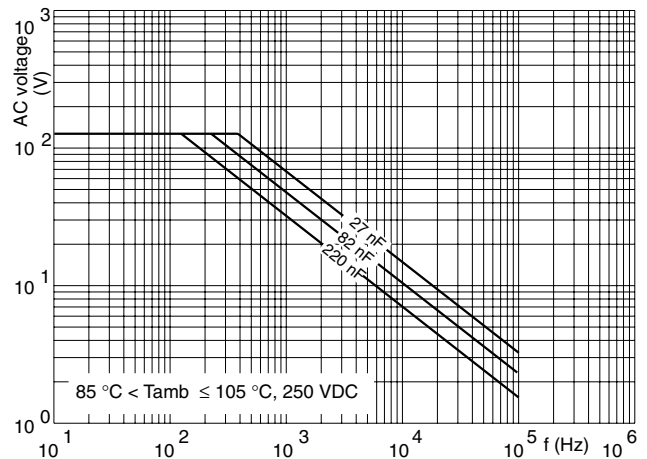
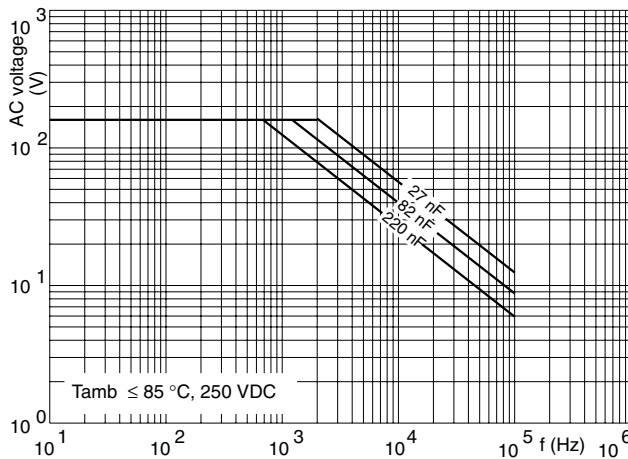
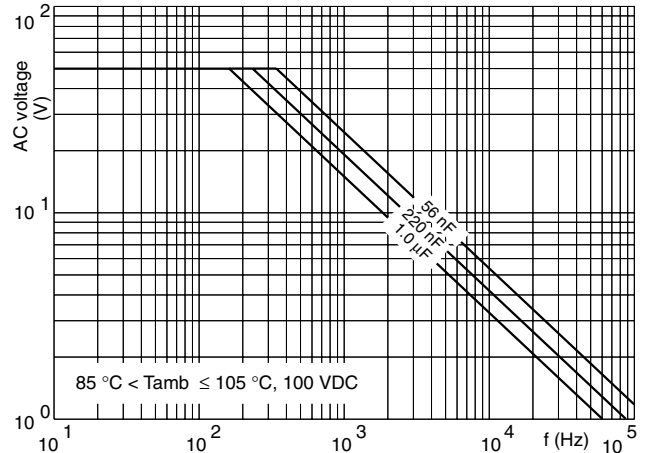
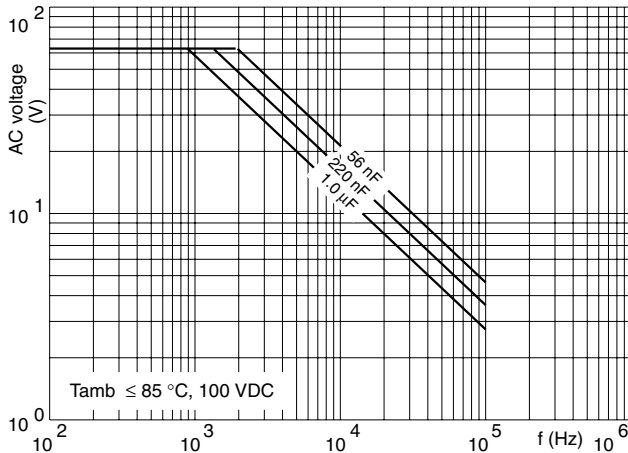
C ( $\mu\text{F}$ )	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 469 ..... AND PACKAGING			
			LOOSE IN BOX			REEL
			$l_t = 4.0 + 1.0/- 0.5\text{ mm}$		$l_t = 22.0 \pm 4.0\text{ mm}$	
			C-tol = $\pm 10\%$	SPQ	SPQ	SPQ
last 5 digits of catalog number						
<b>Pitch = <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 × 11.5 × 12.5	0.5	55102	2000	1500	1300
0.0012			55122			
0.0015			55152			
0.0018			55182			
0.0022	4.0 × 11.0 × 12.5	0.4	55222	2000	1500	1500
0.0027	4.3 × 11.3 × 12.5	0.5	55272	2000	1500	1500
0.0033	4.6 × 11.6 × 12.5	0.5	55332	2000	1500	1300
0.0039	4.0 × 11.0 × 12.5	0.4	55392	2000	1500	1500
0.0047	4.1 × 11.1 × 12.5	0.4	55472	2000	1500	1500
0.0056	4.6 × 11.6 × 12.5	0.5	55562	2000	1500	1300
0.0068	4.2 × 11.2 × 12.5	0.4	55682	2000	1500	1500
0.0082	4.6 × 11.6 × 12.5	0.5	55822	2000	1500	1300
0.01	4.1 × 11.1 × 12.5	0.4	55103	2000	1500	1500
0.012	4.5 × 11.5 × 12.5	0.5	55123	2000	1500	1300
0.015	4.1 × 11.1 × 12.5	0.4	55153	2000	1500	1500
0.018	4.5 × 11.5 × 12.5	0.5	55183	2000	1500	1300
0.022	4.0 × 11.0 × 12.5	0.4	55223	2000	1500	1500
0.027	4.2 × 11.2 × 12.5	0.4	55273	2000	1500	1500
0.033	4.6 × 11.6 × 12.5	0.5	55333	2000	1500	1300
0.039	5.0 × 12.0 × 12.5	0.5	55393	1500	1250	1200
0.047	4.1 × 11.1 × 12.5	0.4	55473	2000	1500	1500
0.056	4.4 × 11.4 × 12.5	0.5	55563	2000	1500	1500
0.068	4.8 × 11.8 × 12.5	0.5	55683	2000	1250	1300
0.082	5.4 × 12.4 × 12.5	0.6	55823	1500	1000	1200
0.1	5.7 × 12.7 × 12.5	0.6	55104	1500	1000	1100

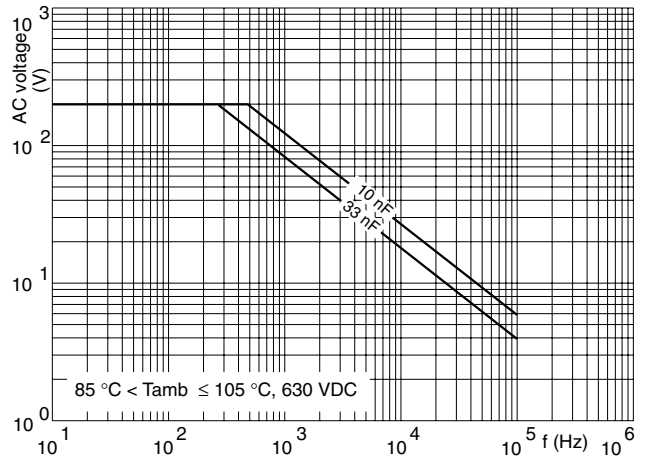
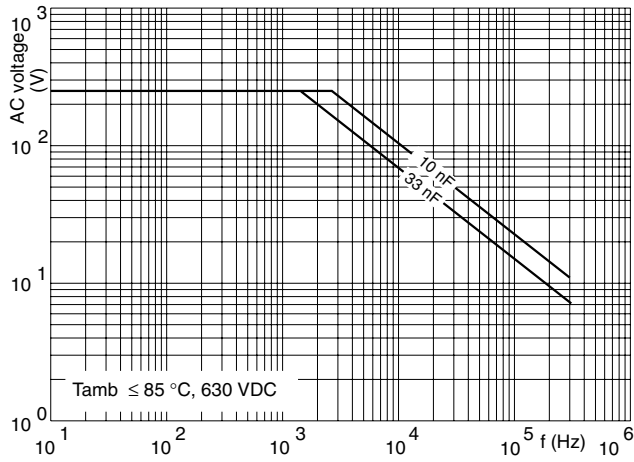
$U_{Rdc} = 630\text{ V}$ ;  $U_{Rac} = 250\text{ V}$

C ( $\mu\text{F}$ )	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 469 ..... 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 × 11.1 × 12.5	0.4	65103	2000	1500	1500
0.012	4.5 × 11.5 × 12.5	0.5	65123	2000	1500	1300
0.015	4.9 × 11.9 × 12.5	0.5	65153	2000	1250	1200
0.018	5.4 × 12.4 × 12.5	0.6	65183	1500	1000	1100
0.022	4.8 × 11.8 × 12.5	0.5	65223	2000	1250	1300
0.027	5.3 × 12.3 × 12.5	0.6	65273	2000	1000	1200
0.033	5.9 × 12.9 × 12.5	0.6	65333	1500	1000	1100

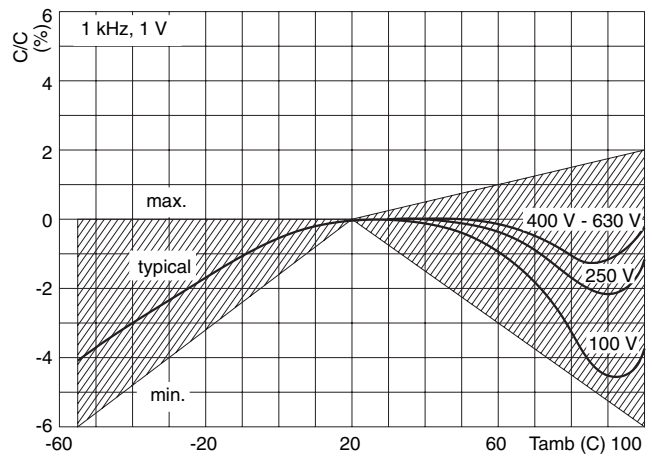
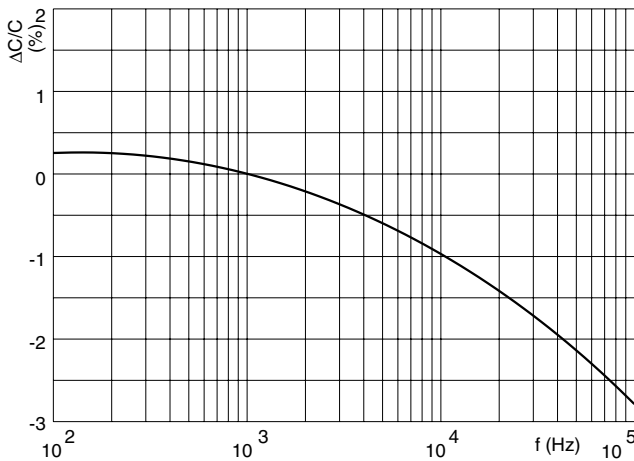


MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY

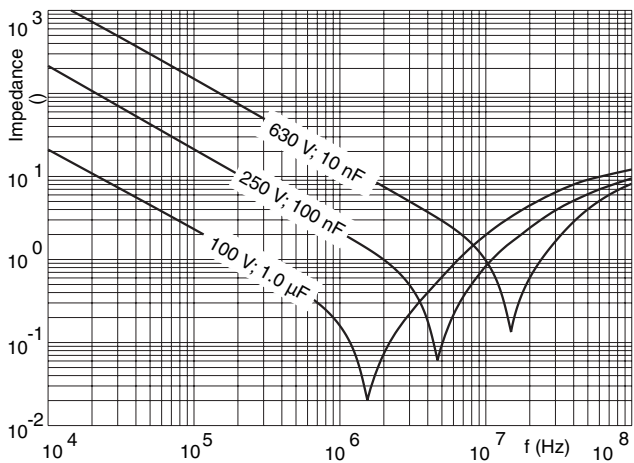




**CAPACITANCE**



**IMPEDANCE**





## Disclaimer

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