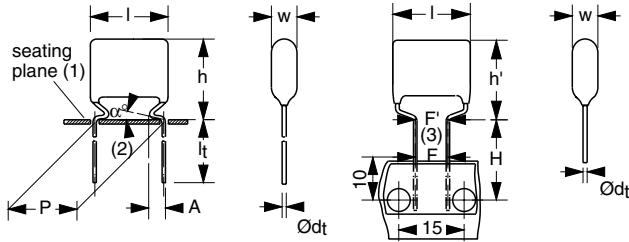
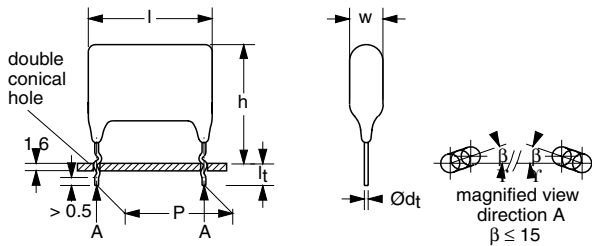


## AC and Pulse Polypropylene Film Capacitors MKP Radial Epoxy Lacquered Type



**Dimensions in mm**

- (1) Hole  $\varnothing$  1.0 for  $d_t = 0.6$  mm  
Hole  $\varnothing$  1.3 for  $d_t = 0.8$  mm
- (2)  $0 \leq \alpha < 50^\circ$
- (3)  $|F - F'| < 0.3$  mm  
 $F = 7.5 + 0.6/-0.1$  mm
- (4)  $A = 2.0 + 1.0/-0.5$  mm (pitch = 10.0 mm)  
 $A = 2.5 + 1.4/-0.5$  mm (pitch = 15.0 mm; 22.5 mm and 27.5 mm)



**Dimensions in mm**

**APPLICATIONS**

Low losses due to low contact resistance and low loss dielectric result in applications where high currents at high frequency occur or high stability is preferred. Typical for S-correction in TV-sets and monitor. Their small dimensions make them suitable for circuits with high packaging density.

**MARKING**

Manufacturer's emblem; C-value; tolerance; rated voltage; manufacturer's type designation; code for dielectric material; code for monitor type

**DIELECTRIC**

Polypropylene film

**ELECTRODES**

Vacuum deposited aluminum

**COATING**

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

**LEADS**

Tinned wire

**FEATURES**

7.5 mm bent back pitch. 10 to 27.5 mm lead pitch. 10 to 27.5 mm lead pitch. Low contact resistance. Low loss dielectric. Supplied loose in box (including lock lead versions) and taped on reel

- Lead (Pb)-free product
- RoHS-compliant product



**RoHS  
COMPLIANT**

**CONSTRUCTION**

Wound mono construction

**CAPACITANCE RANGE (E24 SERIES)**

0.01 to 3.9  $\mu$ F

**CAPACITANCE TOLERANCE**

$\pm 5\%$

**RATED (DC) VOLTAGE**

160 V; 250 V; 400 V; 630 V

**RATED (AC) VOLTAGE**

100 V; 160 V; 200 V; 200 V

**RATED PEAK-TO-PEAK VOLTAGE**

280 V; 450 V; 560 V; 560 V

**CLIMATIC CATEGORY**

55/105/56

**RATED TEMPERATURE**

85 °C

**MAXIMUM APPLICATION TEMPERATURE**

105 °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 contact: [filmcaps.roeselare@vishay.com](mailto:filmcaps.roeselare@vishay.com)



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

**COMPOSITION OF CATALOG NUMBER**

TYPE AND PITCHES	
479	15.0/7.5 mm
	10.0 mm
	15.0 mm
	22.5 mm
	27.5 mm

**CAPACITANCE**  
(numerically; but not  
for lock lead)

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

Example:  
104 = 10 x 10 = 100 nF

2222	479	XX	XX	X
BFC2*	479	XX	XX	X

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

TYPE	PACKAGING	LEAD CONFIGURATION	PREFERRED TYPES						
			C-TOL	160 V	250 V	400 V	630 V	250 V	400 V
								monitor type	monitor type
479	loose in box	lead length 5.0 ± 1.0 mm	± 5 %	32	42	52	62	41	51
		lock lead 4.0 + 1.0/- 0.5 mm		90	90	90	90	90	90
	Taped on reel (bent back)	H = 16.0 mm; P <sub>0</sub> = 15.0 mm; reel diameter 500 mm		36	46	56	66	49	59
dimensions relating to this code should remain in Parenthesis									
<b>ON REQUEST</b>									
479	loose in box	lead length 3.5 + 1.0/- 0.5 mm	± 5 %	34	44	54	64	43	53
	taped on reel	H = 16.0 mm; P <sub>0</sub> = 12.7 mm; reel diameter 500 mm		35	45	55	65	47	57

**SPECIFIC REFERENCE DATA (160 VDC)**

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
C = 0.075 µF	≤ 5 × 10 <sup>-4</sup>	≤ 20 × 10 <sup>-4</sup>
0.075 µF < C ≤ 0.11 µF	≤ 5 × 10 <sup>-4</sup>	≤ 25 × 10 <sup>-4</sup>
0.11 µF < C ≤ 0.18 µF	≤ 10 × 10 <sup>-4</sup>	≤ 30 × 10 <sup>-4</sup>
0.18 µF < C ≤ 0.3 µF	≤ 10 × 10 <sup>-4</sup>	≤ 35 × 10 <sup>-4</sup>
0.3 µF < C ≤ 0.39 µF	≤ 10 × 10 <sup>-4</sup>	≤ 40 × 10 <sup>-4</sup>
0.39 µF < C ≤ 0.56 µF	≤ 10 × 10 <sup>-4</sup>	≤ 45 × 10 <sup>-4</sup>
0.56 µF < C ≤ 0.68 µF	≤ 10 × 10 <sup>-4</sup>	≤ 50 × 10 <sup>-4</sup>
0.68 µF < C ≤ 0.75 µF	≤ 10 × 10 <sup>-4</sup>	≤ 55 × 10 <sup>-4</sup>
C = 0.82 µF	≤ 10 × 10 <sup>-4</sup>	≤ 55 × 10 <sup>-4</sup>
0.82 µF < C ≤ 0.91 µF	≤ 10 × 10 <sup>-4</sup>	≤ 60 × 10 <sup>-4</sup>
0.91 µF < C ≤ 1.0 µF	≤ 10 × 10 <sup>-4</sup>	≤ 65 × 10 <sup>-4</sup>
1.0 µF < C ≤ 1.2 µF	≤ 10 × 10 <sup>-4</sup>	≤ 70 × 10 <sup>-4</sup>
1.2 µF < C ≤ 1.3 µF	≤ 10 × 10 <sup>-4</sup>	≤ 75 × 10 <sup>-4</sup>
1.3 µF < C ≤ 1.5 µF	≤ 10 × 10 <sup>-4</sup>	≤ 80 × 10 <sup>-4</sup>
1.5 µF < C ≤ 1.6 µF	≤ 10 × 10 <sup>-4</sup>	≤ 85 × 10 <sup>-4</sup>
1.6 µF < C ≤ 1.8 µF	≤ 10 × 10 <sup>-4</sup>	≤ 90 × 10 <sup>-4</sup>
1.8 µF < C ≤ 2.0 µF	≤ 10 × 10 <sup>-4</sup>	≤ 95 × 10 <sup>-4</sup>
2.0 µF < C ≤ 2.2 µF	≤ 10 × 10 <sup>-4</sup>	≤ 100 × 10 <sup>-4</sup>
2.2 µF < C ≤ 2.4 µF	≤ 15 × 10 <sup>-4</sup>	≤ 105 × 10 <sup>-4</sup>
2.4 µF < C ≤ 2.7 µF	≤ 15 × 10 <sup>-4</sup>	≤ 110 × 10 <sup>-4</sup>
2.7 µF < C ≤ 3.0 µF	≤ 15 × 10 <sup>-4</sup>	≤ 115 × 10 <sup>-4</sup>
3.0 µF < C ≤ 3.3 µF	≤ 15 × 10 <sup>-4</sup>	≤ 125 × 10 <sup>-4</sup>
3.3 µF < C ≤ 3.6 µF	≤ 15 × 10 <sup>-4</sup>	≤ 130 × 10 <sup>-4</sup>
3.6 µF < C ≤ 3.9 µF	≤ 15 × 10 <sup>-4</sup>	≤ 135 × 10 <sup>-4</sup>
Rated voltage pulse slope (dU/dt) <sub>R</sub> at 160 V (DC):		
P = 10 mm		60 V/µs
P = 15 mm		50 V/µs
P = 22.5 mm		25 V/µs
P = 27.5 mm		15 V/µs
R between leads, for C ≤ 1.0 µF at 100 V; 1 minute		> 100000 MΩ
RC between leads, for C > 1 µF at 100 V; 1 minute		> 100000 s
R between leads and case; 100 V; 1 minute		> 100000 MΩ
Ionization (AC) voltage (typical value) at 50 pC peak discharge		> 220 V
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		256 V; 1 minute
Withstanding (DC) voltage between leads and case		2840 V; 1 minute

**U<sub>Rdc</sub> = 160 V; U<sub>Rac</sub> = 100 V; U<sub>p-p</sub> = 280 V (standard)**

C (µF)	DIMENSIONS wmax × h (h')max × lma x (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			lt = 5.0 ± 1.0 mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = ± 5 %	SPQ	C-tol = ± 5 %		SPQ
last 5 digits of catalog number	last 5 digits of catalog number	SPQ					
<b>Pitch = 10.0 ± 0.4 mm; d<sub>t</sub> = 0.60 ± 0.06 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 10.0 mm</b>	
0.075	6.0 × 15.0 × 12.5	0.9	32753	1000		1000	
0.082			32823				
0.091			32913				
0.1			32104				
0.11			32114				
0.12			32124				
0.13			32134				



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h (h')_{max} \times l_{max}$ x (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			$l_t = 5.0 \pm 1.0$ mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
0.15 0.16	6.5 × 15.5 × 12.5	1.0	32154 32164	1000			900
<b>Pitch = 15.0 ± 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 15.0 mm</b>
0.18	6.0 × 15.0 (16.5) × 18.5	1.2	32184	2000	36184	800	1000
0.20 0.22	6.5 × 15.5 (17.0) × 18.5	1.3	32204 32224	1500	36204 36224	750	900
0.24 0.27 0.30 0.33 0.36 0.39	7.0 × 16.0 (17.5) × 18.5	1.4	32244 32274 32304 32334 32364 32394	1250	36244 36274 36304 36334 36364 36394	700	800
0.43 0.47	7.5 × 16.5 (18.0) × 18.5	1.5	32434 32474	1250	36434 36474	650	800
0.51 0.56	8.0 × 17.0 (18.5) × 18.5	1.6	32514 32564	1250	36514 36564	600	700
0.62	8.5 × 17.5 (19.0) × 18.5	1.7	32624	1000	36624	550	700
0.68	9.0 × 18.0 (19.5) × 18.5	1.8	32684	1000	36684	550	600
0.75	9.5 × 18.5 (20.0) × 18.5	1.9	32754	900	36754	500	600
<b>Pitch = 22.5 ± 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>
0.82	7.0 × 20.0 × 26.0	1.8	32824	650			550
0.91 1	7.5 × 20.5 × 26.0	1.9	32914 32105	600			500
1.1	8.0 × 21.0 × 26.0	2.0	32115	550			500
1.2 1.3	8.5 × 21.5 × 26.0	2.1	32125 32135	500			450
1.5 1.6	9.5 × 22.5 × 26.0	2.4	32155 32165	450			400
1.8	10.0 × 23.0 × 26.0	2.5	32185	400			400
<b>Pitch = 27.5 ± 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 27.5 mm</b>
2	10.0 × 23.0 × 30.0	5.0	32205	450			
2.2	10.5 × 23.5 × 30.0	5.0	32225	450			
2.4	11.0 × 24.0 × 30.0	5.5	32245	400			
2.7	11.5 × 24.5 × 30.0	5.5	32275	400			
3	12.0 × 25.0 × 30.0	6.0	32305	350			
3.3	13.0 × 26.0 × 30.0	6.5	32335	300			
3.6	13.5 × 26.5 × 30.0	7.0	32365	300			
3.9	14.0 × 27.0 × 30.0	7.0	32395	300			

$U_{Rdc} = 160 \text{ V}$ ;  $U_{Rac} = 100 \text{ V}$ ;  $U_{p-p} = 280 \text{ V}$  (lock lead)

C ( $\mu\text{F}$ )	DIMENSIONS $w_{\text{max}} \times h_{\text{max}} \times l_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/-0.5 \text{ mm}$	
			C-tol = $\pm 5 \%$ last 5 digits of catalog number	SPQ
<b>Pitch = <math>10.0 \pm 1.0 \text{ mm}</math>; <math>d_t = 0.60 \pm 0.06 \text{ mm}</math></b>				
0.075	6.0 × 18.0 × 12.5	0.9	90089	1400
0.082			90091	
0.091			90092	
0.1			90093	
0.11			90094	
0.12			90095	
0.13			90096	
0.15	6.5 × 18.5 × 12.5	1.0	90097	1250
0.16			90098	
<b>Pitch = <math>15.0 \pm 1.0 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>				
0.18	6.0 × 18.0 × 18.5	1.2	90099	1500
0.20	6.5 × 18.5 × 18.5	1.3	90101	1250
0.22			90102	
0.24	7.0 × 19.0 × 18.5	1.4	90103	1250
0.27			90104	
0.30			90105	
0.33			90106	
0.36			90107	
0.39			90108	
0.43	7.5 × 19.5 × 18.5	1.5	90109	1000
0.47			90111	
0.51	8.0 × 20.0 × 18.5	1.6	90112	1000
0.56			90113	
0.62	8.5 × 20.5 × 18.5	1.7	90114	900
0.68	9.0 × 21.0 × 18.5	1.8	90115	800
0.75	9.5 × 21.5 × 18.5	1.9	90116	800
<b>Pitch = <math>22.5 \pm 1.0 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>				
0.82	7.0 × 23.0 × 26.0	1.8	90117	850
0.91	7.5 × 23.5 × 26.0	1.9	90118	750
1			90119	
1.1	8.0 × 24.0 × 26.0	2.0	90121	700
1.2	8.5 × 24.5 × 26.0	2.1	90122	650
1.3			90036	
1.5	9.5 × 25.5 × 26.0	2.4	90037	550
1.6			90038	
1.8	10.0 × 26.0 × 26.0	2.5	90039	500
<b>Pitch = <math>27.5 \pm 1.0 \text{ mm}</math>; <math>d_t = 0.80 \pm 0.08 \text{ mm}</math></b>				
2	10.0 × 26.0 × 30.0	5.0	90041	400
2.2	10.5 × 26.5 × 30.0	5.0	90042	400
2.4	11.0 × 27.0 × 30.0	5.5	90123	350
2.7	11.5 × 27.5 × 30.0	5.5	90124	350
3	12.0 × 28.0 × 30.0	6.0	90125	350
3.3	13.0 × 29.0 × 30.0	6.5	90126	300
3.6	13.5 × 29.5 × 30.0	7.0	90127	250
3.9	14.0 × 30.0 × 30.0	7.0	90128	250



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

SPECIFIC REFERENCE DATA (250 VDC)

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
0.047 $\mu\text{F} < C \leq 0.075 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
0.075 $\mu\text{F} < C \leq 0.11 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 25 \times 10^{-4}$
0.11 $\mu\text{F} < C \leq 0.18 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 30 \times 10^{-4}$
0.18 $\mu\text{F} < C \leq 0.3 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 40 \times 10^{-4}$
0.39 $\mu\text{F} < C \leq 0.47 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 45 \times 10^{-4}$
0.51 $\mu\text{F} < C \leq 0.56 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 45 \times 10^{-4}$
0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 50 \times 10^{-4}$
0.68 $\mu\text{F} < C \leq 0.82 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 55 \times 10^{-4}$
0.82 $\mu\text{F} < C \leq 0.91 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 60 \times 10^{-4}$
0.91 $\mu\text{F} < C \leq 1.0 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 65 \times 10^{-4}$
1.0 $\mu\text{F} < C \leq 1.2 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 70 \times 10^{-4}$
1.2 $\mu\text{F} < C \leq 1.3 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 75 \times 10^{-4}$
1.3 $\mu\text{F} < C \leq 1.5 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 80 \times 10^{-4}$
1.5 $\mu\text{F} < C \leq 1.6 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 85 \times 10^{-4}$
1.6 $\mu\text{F} < C \leq 1.8 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 90 \times 10^{-4}$
1.8 $\mu\text{F} < C \leq 2.0 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 95 \times 10^{-4}$
2.0 $\mu\text{F} < C \leq 2.2 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 100 \times 10^{-4}$
2.2 $\mu\text{F} < C \leq 2.4 \mu\text{F}$	$\leq 15 \times 10^{-4}$	$\leq 105 \times 10^{-4}$
2.4 $\mu\text{F} < C \leq 2.7 \mu\text{F}$	$\leq 15 \times 10^{-4}$	$\leq 110 \times 10^{-4}$
2.7 $\mu\text{F} < C \leq 3 \mu\text{F}$	$\leq 15 \times 10^{-4}$	$\leq 115 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) <sub>R</sub> :		
P = 10.0 mm		70 V/ $\mu\text{s}$
P = 15.0 mm		60 V/ $\mu\text{s}$
P = 22.5 mm		30 V/ $\mu\text{s}$
P = 27.5 mm		20 V/ $\mu\text{s}$
R between leads, for C $\leq 1.0 \mu\text{F}$ at 100 V; 1 minute		> 100000 M $\Omega$
RC between leads, for C > 1 $\mu\text{F}$ at 100 V; 1 minute		> 100000 s
R between leads and case; 100 V; 1 minute		> 100000 M $\Omega$
Ionization (AC) voltage (typical value) at 50 pC peak discharge		> 220 V
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		400 V; 1 minute
Withstanding (DC) voltage between leads and case		2840 V; 1 minute

**U<sub>Rdc</sub> = 250 V; U<sub>Rac</sub> = 160 V; U<sub>p-p</sub> = 450 V (standard)**

C ( $\mu\text{F}$ )	DIMENSIONS wmax $\times$ h (h')max $\times$ lmax ax (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING			
			LOOSE IN BOX		REEL	
			It = 5.0 $\pm$ 1.0 mm	all leads	pitch 7.5 mm (bent back)	original pitch
			C-tol = $\pm$ 5 %	SPQ	C-tol = $\pm$ 5 %	SPQ
last 5 digits of catalog number	last 5 digits of catalog number	SPQ				
Pitch = 10.0 $\pm$ 0.4 mm; d <sub>t</sub> = 0.60 $\pm$ 0.06 mm			pitch = 7.5 mm (bent back)		pitch = 10.0 mm	
0.047	6.0 $\times$ 15.0 $\times$ 12.5	0.9	42473	1000	1000	
0.051			42513			
0.056			42563			
0.062			42623			
0.068			42683			
0.075			42753			
0.082			42823			
0.091			42913			
0.1	6.5 $\times$ 15.5 $\times$ 12.5	1.0	42104	1000	900	

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h (h')_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING								
			LOOSE IN BOX		REEL						
			$l_t = 5.0 \pm 1.0$ mm	all leads	pitch 7.5 mm (bent back)		original pitch				
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %	SPQ	SPQ				
last 5 digits of catalog number	last 5 digits of catalog number										
<b>Pitch = 15.0 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 15.0 mm</b>				
0.11	6.5 $\times$ 15.5 (17.0) $\times$ 18.5	1.3	42114	1500	46114	750	900				
0.12			42124		46124						
0.13			42134		46134						
0.15			42154		46154						
0.16			42164		46164						
0.18			42184		46184						
0.20			42204		46204						
0.22			42224		46224						
0.24	7.0 $\times$ 16.0 (17.5) $\times$ 18.5	1.4	42244	1250	46244	700	800				
0.27	7.5 $\times$ 16.5 (18.0) $\times$ 18.5	1.5	42274	1250	46274	650	800				
0.30			42304		46304						
0.33	8.0 $\times$ 17.0 (18.5) $\times$ 18.5	1.6	42334	150	46334	600	700				
0.36	8.5 $\times$ 17.5 (19.0) $\times$ 18.5	1.7	42364	1000	46364	550	700				
0.39			42394		46394						
0.43	9.0 $\times$ 18.0 (19.5) $\times$ 18.5	1.8	42434	1000	46434	550	600				
0.47	9.5 $\times$ 18.5 (20.0) $\times$ 18.5	1.9	42474	900	46474	500	600				
<b>Pitch = 22.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>				
0.51	7.0 $\times$ 20.0 $\times$ 26.0	1.8	42514	650			550				
0.56			42564								
0.62	7.5 $\times$ 20.5 $\times$ 26.0	1.9	42624	600					500		
0.68			42684								
0.75	8.0 $\times$ 21.0 $\times$ 26.0	2.0	42754	550							500
0.82	8.5 $\times$ 21.5 $\times$ 26.0	2.1	42824	500							450
0.91	9.0 $\times$ 22.0 $\times$ 26.0	2.4	42914	450							450
1.0	9.5 $\times$ 22.5 $\times$ 26.0	2.5	42105	450							400
1.1	10.0 $\times$ 23.0 $\times$ 26.0	2.6	42115	400							400
1.2	10.5 $\times$ 23.5 $\times$ 26.0	2.7	42125	350							350
<b>Pitch = 27.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>						<b>pitch = 27.5 mm</b>
1.3	10.0 $\times$ 23.0 $\times$ 30.0	5.0	42135	450							
1.5	10.5 $\times$ 23.5 $\times$ 30.0	5.0	42155	450							
1.6	11.0 $\times$ 24.0 $\times$ 30.0	5.5	42165	400							
1.8	11.5 $\times$ 24.5 $\times$ 30.0	5.5	42185	400							
2.0	12.5 $\times$ 25.5 $\times$ 30.0	6.5	42205	350							
2.2	13.0 $\times$ 26.0 $\times$ 30.0	6.5	42225	300							
2.4	13.5 $\times$ 26.5 $\times$ 30.0	7.0	42245	300							
2.7	14.0 $\times$ 27.0 $\times$ 30.0	7.0	42275	300							
3.0	15.0 $\times$ 28.0 $\times$ 30.0	7.5	42305	250							



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

$U_{Rdc} = 250\text{ V}$ ;  $U_{Rac} = 160\text{ V}$ ;  $U_{p-p} = 450\text{ V}$  (lock lead)

C ( $\mu\text{F}$ )	DIMENSIONS $w_{max} \times H_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/- 0.5\text{ mm}$	
			C-tol = $\pm 5\%$ last 5 digits of catalog number	SPQ
<b>Pitch = <math>10.0 \pm 1.0\text{ mm}</math>; <math>d_t = 0.60 \pm 0.06\text{ mm}</math></b>				
0.047	6.0 × 18.0 × 12.5	0.9	90052	1400
0.051			90129	
0.056			90131	
0.062			90132	
0.068			90133	
0.075			90134	
0.082			90135	
0.091			90136	
0.1	6.5 × 18.5 × 12.5	1.0	90137	1250
<b>Pitch = <math>15.0 \pm 1.0\text{ mm}</math>; <math>d_t = 0.80 \pm 0.08\text{ mm}</math></b>				
0.11	6.5 × 18.5 × 18.5	1.3	90138	1250
0.12			90051	
0.13			90139	
0.15			90141	
0.16			90142	
0.18			90012	
0.20			90013	
0.22			90014	
0.24	7.0 × 19.0 × 18.5	1.4	90015	1250
0.27	7.5 × 19.5 × 18.5	1.5	90016	1000
0.30			90017	
0.33	8.0 × 20.0 × 18.5	1.6	90018	1000
0.36	8.5 × 20.5 × 18.5	1.7	90019	900
0.39			90021	
0.43	9.0 × 21.0 × 18.5	1.8	90022	800
0.47	9.5 × 21.5 × 18.5	1.9	90023	800
<b>Pitch = <math>22.5 \pm 1.0\text{ mm}</math>; <math>d_t = 0.80 \pm 0.08\text{ mm}</math></b>				
0.51	7.0 × 23.0 × 26.0	1.8	90024	850
0.56			90025	
0.62	7.5 × 23.5 × 26.0	1.9	90026	750
0.68			90027	
0.75	8.0 × 24.0 × 26.0	2.0	90028	700
0.82	8.5 × 24.5 × 26.0	2.1	90029	650
0.91	9.0 × 25.0 × 26.0	2.4	90031	600
1.0	9.5 × 25.5 × 26.0	2.5	90032	550
1.1	10.0 × 26.0 × 26.0	2.6	90033	500
1.2	10.5 × 26.5 × 26.0	2.7	90034	500
<b>Pitch = <math>27.5 \pm 1.0\text{ mm}</math>; <math>d_t = 0.80 \pm 0.08\text{ mm}</math></b>				
1.3	10.0 × 26.0 × 30.0	5.0	90143	400
1.5	10.5 × 26.5 × 30.0	5.0	90144	400
1.6	11.0 × 27.0 × 30.0	5.5	90145	350
1.8	11.5 × 27.5 × 30.0	5.5	90146	350
2.0	12.5 × 28.5 × 30.0	6.5	90147	300
2.2	13.0 × 29.0 × 30.0	6.5	90148	300
2.4	13.5 × 29.5 × 30.0	7.0	90149	250
2.7	14.0 × 30.0 × 30.0	7.0	90151	250
3.0	15.0 × 31.0 × 30.0	7.5	90152	200



**SPECIFIC REFERENCE DATA (400 VDC)**

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
0.022 μF < C ≤ 0.027 μF	≤ 5 × 10 <sup>-4</sup>	≤ 15 × 10 <sup>-4</sup>
0.027 μF < C ≤ 0.075 μF	≤ 5 × 10 <sup>-4</sup>	≤ 20 × 10 <sup>-4</sup>
0.075 μF < C ≤ 0.11 μF	≤ 5 × 10 <sup>-4</sup>	≤ 25 × 10 <sup>-4</sup>
0.11 μF < C ≤ 0.18 μF	≤ 10 × 10 <sup>-4</sup>	≤ 30 × 10 <sup>-4</sup>
0.18 μF < C ≤ 0.22 μF	≤ 10 × 10 <sup>-4</sup>	≤ 35 × 10 <sup>-4</sup>
0.24 μF < C ≤ 0.3 μF	≤ 10 × 10 <sup>-4</sup>	≤ 35 × 10 <sup>-4</sup>
0.3 μF < C ≤ 0.39 μF	≤ 10 × 10 <sup>-4</sup>	≤ 40 × 10 <sup>-4</sup>
0.39 μF < C ≤ 0.56 μF	≤ 10 × 10 <sup>-4</sup>	≤ 45 × 10 <sup>-4</sup>
0.56 μF < C ≤ 0.68 μF	≤ 10 × 10 <sup>-4</sup>	≤ 50 × 10 <sup>-4</sup>
0.68 μF < C ≤ 0.82 μF	≤ 10 × 10 <sup>-4</sup>	≤ 55 × 10 <sup>-4</sup>
0.82 μF < C ≤ 0.91 μF	≤ 10 × 10 <sup>-4</sup>	≤ 60 × 10 <sup>-4</sup>
0.91 μF < C ≤ 1.0 μF	≤ 10 × 10 <sup>-4</sup>	≤ 65 × 10 <sup>-4</sup>
1.0 μF < C ≤ 1.2 μF	≤ 10 × 10 <sup>-4</sup>	≤ 70 × 10 <sup>-4</sup>
Rated voltage pulse slope (dU/dt) <sub>R</sub> at 400 V (DC):		
P = 10.0 mm		80 V/μs
P = 15.0 mm		70 V/μs
P = 22.5 mm		35 V/μs
P = 27.5 mm		25 V/μs
R between leads, for C ≤ 1.0 μF at 100 V; 1 minute		> 100000 MΩ
RC between leads, for C > 1.0 μF at 100 V; 1 minute		> 100000 s
R between leads and case; 100 V; 1 minute		> 100000 MΩ
Ionization (AC) voltage (typical value) at 50 pC peak discharge		> 220 V
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		640 V; 1 minute
Withstanding (DC) voltage between leads and case		2840 V; 1 minute

**U<sub>Rdc</sub> = 400 V; U<sub>Rac</sub> = 200 V; U<sub>p-p</sub> = 560 V (standard)**

C (μF)	DIMENSIONS wmax × h (h')max × lma x (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			It = 5.0 ± 1.0 mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = ± 5 %	SPQ	C-tol = ± 5 %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
Pitch = 10.0 ± 0.4 mm; d <sub>t</sub> = 0.60 ± 0.06 mm					pitch = 7.5 mm (bent back)	pitch = 10.0 mm	
0.022	6.0 × 15.0 × 12.5	0.9	52223	1000		1000	
0.024			52243				
0.027			52273				
0.03			52303				
0.033			52333				
0.036			52363				
0.039			52393				
0.043			52433				
0.047	52473						
Pitch = 15.0 ± 0.4 mm; d <sub>t</sub> = 0.80 ± 0.08 mm					pitch = 7.5 mm (bent back)	pitch = 15.0 mm	
0.051	6.5 × 15.5 (17.0) × 18.5	1.3	52513	1500	56513	900	
0.056			52563		56563		
0.062			52623		56623		
0.068			52683		56683		
0.075			52753		56753		
0.082			52823		56823		



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h (h')_{max} \times l_{max}$ x (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			$l_t = 5.0 \pm 1.0$ mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
0.091 0.1 0.11 0.12	7.0 × 16.0 (17.5) × 18.5	1.4	52913 52104 52114 52124	1250	56913 56104 56114 56124	700	800
0.13 0.15	7.5 × 16.5 (18.0) × 18.5	1.5	52134 52154	1250	56134 56154	650	800
0.16	8.0 × 17.0 (18.5) × 18.5	1.6	52164	1250	56164	600	700
0.18 0.2	8.5 × 17.5 (19.0) × 18.5	1.7	52184 52204	1000	56184 56204	550	700
0.22	9.0 × 18.0 (19.5) × 18.5	1.8	52224	1000	56224	550	600
<b>Pitch = 22.5 ± 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>
0.24	6.5 × 19.5 × 26.0	1.7	52244	750			600
0.27	7.0 × 20.0 × 26.0	1.8	52274	650			550
0.3 0.33	7.5 × 20.5 × 26.0	1.9	52304 52334	600			500
0.36	8.0 × 21.0 × 26.0	2.0	52364	550			500
0.39 0.43	8.5 × 21.5 × 26.0	2.1	52394 52434	500			450
0.47	9.0 × 22.0 × 26.0	2.4	52474	450			450
0.51	9.5 × 22.5 × 26.0	2.5	52514	450			400
0.56	10.0 × 23.0 × 26.0	2.6	52564	400			400
0.62	10.5 × 23.5 × 26.0	2.7	52624	350			350
<b>Pitch = 27.5 ± 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 27.5 mm</b>
0.68	10.0 × 23.0 × 30.0	5.0	52684	450			
0.75	10.5 × 23.5 × 30.0	5.0	52754	450			
0.82	11.0 × 24.0 × 30.0	5.5	52824	400			
0.91	11.5 × 24.5 × 30.0	5.5	52914	400			
1.0	12.0 × 25.0 × 30.0	6.0	52105	350			
1.1	12.5 × 25.5 × 30.0	6.5	52115	350			
1.2	13.0 × 26.0 × 30.0	6.5	52125	300			

$U_{Rdc} = 400$  V;  $U_{Rac} = 200$  V;  $U_{p-p} = 560$  V (lock lead)

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/- 0.5$ mm	
			C-tol = $\pm 5$ %	
		last 5 digits of catalog number	SPQ	
<b>Pitch = 10.0 ± 1.0 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>				
0.022 0.024 0.027 0.03 0.033	6.0 × 18.0 × 12.5	0.9	90153 90154 90155 90156 90157	1400

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/-0.5$ mm	
			C-tol = $\pm 5$ %	
			last 5 digits of catalog number	SPQ
0.036 0.039 0.043 0.047	6.0 $\times$ 18.0 $\times$ 12.5	0.9	90158 90159 90161 90162	1400
<b>Pitch = 15.0 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.051 0.056 0.062 0.068 0.075 0.082	6.5 $\times$ 18.5 $\times$ 18.5	1.3	90163 90164 90165 90166 90167 90168	1250
0.091 0.1 0.11 0.12	7.0 $\times$ 19.0 $\times$ 18.5	1.4	90169 90171 90172 90173	1250
0.13 0.15	7.5 $\times$ 19.5 $\times$ 18.5	1.5	90174 90175	1000
0.16	8.0 $\times$ 20.0 $\times$ 18.5	1.6	90176	1000
0.18 0.2	8.5 $\times$ 20.5 $\times$ 18.5	1.7	90177 90178	900
0.22	9.0 $\times$ 21.0 $\times$ 18.5	1.8	90179	800
<b>Pitch = 22.5 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.24	6.5 $\times$ 22.5 $\times$ 26.0	1.7	90181	900
0.27	7.0 $\times$ 23.0 $\times$ 26.0	1.8	90182	850
0.3 0.33	7.5 $\times$ 23.5 $\times$ 26.0	1.9	90183 90184	750
0.36	8.0 $\times$ 24.0 $\times$ 26.0	2.0	90185	700
0.39 0.43	8.5 $\times$ 24.5 $\times$ 26.0	2.1	90186 90187	650
0.47	9.0 $\times$ 25.0 $\times$ 26.0	2.4	90188	600
0.51	9.5 $\times$ 25.5 $\times$ 26.0	2.5	90189	550
0.56	10.0 $\times$ 26.0 $\times$ 26.0	2.6	90191	500
0.62	10.5 $\times$ 26.5 $\times$ 26.0	2.7	90192	500
<b>Pitch = 27.5 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.68	10.0 $\times$ 26.0 $\times$ 30.0	5.0	90193	400
0.75	10.5 $\times$ 26.5 $\times$ 30.0	5.0	90194	400
0.82	11.0 $\times$ 27.0 $\times$ 30.0	5.5	90195	350
0.91	11.5 $\times$ 27.5 $\times$ 30.0	5.5	90196	350
1.0	12.0 $\times$ 28.0 $\times$ 30.0	6.0	90086	350
1.1	12.5 $\times$ 28.5 $\times$ 30.0	6.5	90197	300
1.2	13.0 $\times$ 29.0 $\times$ 30.0	6.5	90198	300



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
0.01 $\mu\text{F} < C \leq 0.027 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
0.027 $\mu\text{F} < C \leq 0.075 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
0.075 $\mu\text{F} < C \leq 0.11 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 25 \times 10^{-4}$
0.12 $\mu\text{F} < C \leq 0.18 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 30 \times 10^{-4}$
0.18 $\mu\text{F} < C \leq 0.3 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 40 \times 10^{-4}$
0.39 $\mu\text{F} < C \leq 0.56 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 45 \times 10^{-4}$
0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 50 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) <sub>R</sub> at 630 V (DC):		
P = 10.0 mm	100 V/ $\mu\text{s}$	
P = 15.0 mm	90 V/ $\mu\text{s}$	
P = 22.5 mm	45 V/ $\mu\text{s}$	
P = 27.5 mm	30 V/ $\mu\text{s}$	
R between leads, for C $\leq 1.0 \mu\text{F}$ at 500 V; 1 minute	> 100000 M $\Omega$	
R between leads and case; 500 V; 1 minute	> 100000 M $\Omega$	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 220 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	

**U<sub>Rdc</sub> = 630 V; U<sub>Rac</sub> = 200 V; U<sub>p-p</sub> = 560 V (standard)**

C ( $\mu\text{F}$ )	DIMENSIONS $W_{\text{max}} \times H (H^1)_{\text{max}} \times L_{\text{max}}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			It = 5.0 $\pm$ 1.0 mm	ALL LEADS	PITCH 7.5 mm (BENT BACK)		ORIGINAL PITCH
			C-tol = $\pm$ 5 %	SPQ	C-tol = $\pm$ 5 %	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER	LAST 5 DIGITS OF CATALOG NUMBER						
<b>Pitch = 10.0 <math>\pm</math> 0.4 mm; d<sub>t</sub> = 0.60 <math>\pm</math> 0.06 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 10.0 mm</b>	
0.01	6.0 x 15.0 x 12.5	0.9	62103	1000		1000	
0.011			62113				
0.012			62123				
0.013			62133				
0.015			62153				
0.016			62163				
0.018			62183				
0.02			62203				
0.022			62223				
0.024			62243				
0.027	6.5 x 15.5 x 12.5	1.0	62273	1000		900	
<b>Pitch = 15.0 <math>\pm</math> 0.4 mm; d<sub>t</sub> = 0.80 <math>\pm</math> 0.08 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 15.0 mm</b>	
0.03	6.5 x 15.5 (17.0) x 18.5	1.3	62303	1500		900	
0.033			62333				
0.036			62363				
0.039			62393				
0.043			62433				
0.047			62473				
0.051			62513				
0.056			62563				
0.062			62623				
0.068			62683				
0.075	7.0 x 16.0 (17.5) x 18.5	1.4	62623	1250	66623	700	
0.068	7.5 x 16.5 (18.0) x 18.5	1.5	62683	1250	66683	650	
0.075	8.0 x 17.0 (18.5) x 18.5	1.6	62753	1250		700	
0.082			62823				66753
					66823		

C ( $\mu$ F)	DIMENSIONS $W_{max} \times H (H')_{max} \times L_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			$l_t = 5.0 \pm 1.0$ mm	ALL LEADS	PITCH 7.5 mm (BENT BACK)		ORIGINAL PITCH
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %		SPQ
LAST 5 DIGITS OF CATALOG NUMBER	LAST 5 DIGITS OF CATALOG NUMBER	SPQ					
0.091	8.5 x 17.5 (19.0) x 18.5	1.7	62913	1000	66913	550	700
0.1	9.0 x 18.0 (19.5) x 18.5	1.8	62104	1000	66104	550	600
0.11	9.5 x 18.5 (20.0) x 18.5	1.9	62114	900	66114	500	600
<b>Pitch = 22.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>
0.12	6.5 x 19.5 x 26.0	1.7	62124	750			600
0.13	7.0 x 20.0 x 26.0	1.8	62134	650			550
0.15	7.5 x 20.5 x 26.0	1.9	62154	600			500
0.16			62164				
0.18	8.0 x 21.0 x 26.0	2.0	62184	550			500
0.20	8.5 x 21.5 x 26.0	2.1	62204	500			450
0.22	9.0 x 22.0 x 26.0	2.4	62224	450			450
0.24			62244				
0.27	9.5 x 22.5 x 26.0	2.5	62274	450			400
0.30	10.0 x 23.0 x 26.0	2.7	62304	400			400
<b>Pitch = 27.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 27.5 mm</b>
0.33	9.5 x 22.5 x 30.0	5.0	62334	550			
0.36	10.0 x 22.5 x 30.0	5.0	62364	500			
0.39	10.5 x 23.0 x 30.0	5.0	62394	450			
0.43	11.0 x 23.0 x 30.0	5.5	62434	450			
0.47	11.5 x 24.5 x 30.0	5.5	62474	400			
0.51	12.0 x 25.0 x 30.0	6.0	62514	350			
0.56	13.0 x 26.0 x 30.0	6.5	62564	300			
0.62	13.5 x 26.5 x 30.0	6.5	62624	300			
0.68	14.0 x 27.0 x 30.0	7.0	62684	300			

$U_{Rdc} = 630$  V;  $U_{Rac} = 200$  V;  $U_{p-p} = 560$  V (lock lead)

C ( $\mu$ F)	DIMENSIONS $W_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING			
			LOOSE IN BOX			
			$l_t = 4.0 + 1.0/-0.5$ mm			
			C-tol = $\pm 5$ %		SPQ	
last 5 digits of catalog number						
<b>Pitch = 10.0 <math>\pm</math> 1.0 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>						
0.01	6.0 x 18.0 x 12.5	0.9	90199		1400	
0.011			90201			
0.012			90202			
0.013			90203			
0.015			90204			
0.016			90205			
0.018			90206			
0.02			90207			
0.022			90208			
0.024			90209			
0.027			6.5 x 18.5 x 12.5	1.0		90211



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/- 0.5$ mm	
			C-tol = $\pm 5$ %	SPQ
			last 5 digits of catalog number	
<b>Pitch = 15.0 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.03	6.5 x 18.5 x 18.5	1.3	90212	1250
0.033			90213	
0.036			90214	
0.039			90215	
0.043			90216	
0.047			90217	
0.051			90218	
0.056			90219	
0.062			7.0 x 19.0 x 18.5	
0.068	7.5 x 19.5 x 18.5	1.5	90222	1000
0.075	8.0 x 20.0 x 18.5	1.6	90223	1000
0.082			90224	
0.091	8.5 x 20.5 x 18.5	1.7	90225	900
0.1	9.0 x 21.0 x 18.5	1.8	90226	800
0.11	9.5 x 21.5 x 18.5	1.9	90227	800
<b>Pitch = 22.5 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.12	6.5 x 22.5 x 26.0	1.7	90228	900
0.13	7.0 x 23.0 x 26.0	1.8	90229	850
0.15	7.5 x 23.5 x 26.0	1.9	90231	750
0.16			90232	
0.18	8.0 x 24.0 x 26.0	2.0	90233	700
0.20	8.5 x 24.5 x 26.0	2.1	90234	650
0.22	9.0 x 25.0 x 26.0	2.4	90235	600
0.24			90236	
0.27	9.5 x 25.5 x 26.0	2.5	90237	550
0.30	10.0 x 26.0 x 26.0	2.7	90238	500
<b>Pitch = 27.5 <math>\pm</math> 1.0 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.33	9.5 x 25.5 x 30.0	5.0	90239	450
0.36	10.0 x 25.5 x 30.0	5.0	90241	450
0.39	10.5 x 26.0 x 30.0	5.0	90242	400
0.43	11.0 x 26.0 x 30.0	5.5	90243	400
0.47	11.5 x 27.5 x 30.0	5.5	90244	350
0.51	12.0 x 28.0 x 30.0	6.0	90245	350
0.56	13.0 x 29.0 x 30.0	6.5	90246	300
0.62	13.5 x 29.5 x 30.0	6.5	90247	250
0.68	14.0 x 30.0 x 30.0	7.0	90248	250

# MKP 479 Monitor

Vishay BCcomponents

AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type



## SPECIFIC REFERENCE DATA (250 VDC MONITOR)

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
0.022 $\mu\text{F} < C \leq 0.027 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
0.027 $\mu\text{F} < C \leq 0.075 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
0.075 $\mu\text{F} < C \leq 0.11 \mu\text{F}$	$\leq 5 \times 10^{-4}$	$\leq 25 \times 10^{-4}$
0.11 $\mu\text{F} < C \leq 0.18 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 30 \times 10^{-4}$
0.18 $\mu\text{F} < C \leq 0.22 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
0.24 $\mu\text{F} < C \leq 0.3 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
0.3 $\mu\text{F} < C \leq 0.39 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 40 \times 10^{-4}$
0.39 $\mu\text{F} < C \leq 0.56 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 45 \times 10^{-4}$
0.56 $\mu\text{F} < C \leq 0.68 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 50 \times 10^{-4}$
0.68 $\mu\text{F} < C \leq 0.82 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 55 \times 10^{-4}$
0.82 $\mu\text{F} < C \leq 0.91 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 60 \times 10^{-4}$
0.91 $\mu\text{F} < C \leq 1.0 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 65 \times 10^{-4}$
1.0 $\mu\text{F} < C \leq 1.2 \mu\text{F}$	$\leq 10 \times 10^{-4}$	$\leq 70 \times 10^{-4}$
Rated voltage pulse slope (dU/dt) <sub>R</sub> :		
P = 10.0 mm		160 V/ $\mu\text{s}$
P = 15.0 mm		140 V/ $\mu\text{s}$
P = 22.5 mm		70 V/ $\mu\text{s}$
P = 27.5 mm		50 V/ $\mu\text{s}$
R between leads, for C $\leq 1.0 \mu\text{F}$ at 100 V; 1 minute		>100000 M $\Omega$
RC between leads, for C >1 $\mu\text{F}$ at 100 V; 1 minute		> 100000 s
R between leads and case; 100 V; 1 minute		> 100000 M $\Omega$
Ionization (AC) voltage (typical value) at 50 pC peak discharge		> 220 V
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s		400 V; 1 minute
Withstanding (DC) voltage between leads and case		2840 V; 1 minute

**U<sub>Rdc</sub> = 250 V; U<sub>Rac</sub> = 160 V; U<sub>p-p</sub> = 450 V (monitor standard)**

C ( $\mu\text{F}$ )	DIMENSIONS w <sub>max</sub> x h (h') <sub>max</sub> x l <sub>max</sub> (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			It = 5.0 $\pm$ 1.0 mm	all leads	pitch 7.5 mm (bent back)	original pitch	
			C-tol = $\pm$ 5 %	SPQ	C-tol = $\pm$ 5 %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
<b>Pitch = 10.0 <math>\pm</math> 0.4 mm; d<sub>t</sub> = 0.60 <math>\pm</math> 0.06 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 10.0 mm</b>	
0.022	6.0 x 15.0 x 12.5	0.9	41223	1000		1000	
0.024			41243				
0.027			41273				
0.03			41303				
0.033			41333				
0.036			41363				
0.039			41393				
0.043			41433				
0.047			41473				
<b>Pitch = 15.0 <math>\pm</math> 0.4 mm; d<sub>t</sub> = 0.80 <math>\pm</math> 0.08 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 15.0 mm</b>	
0.051	6.5 x 15.5 (17.0) x 18.5	1.3	41513	1500	49513	750	900
0.056			41563		49563		
0.062			41623		49623		
0.068			41683		49683		
0.075			41753		49753		
0.082			41823		49823		



AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h (h')_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			$l_t = 5.0 \pm 1.0$ mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
0.091 0.1 0.11 0.12	7.0 x 16.0 (17.5) x 18.5	1.4	41913 41104 41114 41124	1250	49913 49104 49114 49124	700	800
0.13 0.15	7.5 x 16.5 (18.0) x 18.5	1.5	41134 41154	1250	49134 49154	650	800
0.16	8.0 x 17.0 (18.5) x 18.5	1.6	41164	1250	49164	600	700
0.18 0.2	8.5 x 17.5 (19.0) x 18.5	1.7	41184 41204	1000	49184 49204	550	700
0.22	9.0 x 18.0 (19.5) x 18.5	1.8	41224	1000	49224	550	600
<b>Pitch = 22.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>
0.24	6.5 x 19.5 x 26.0	1.7	41244	750			600
0.27	7.0 x 20.0 x 26.0	1.8	41274	650			550
0.3 0.33	7.5 x 20.5 x 26.0	1.9	41304 41334	600			500
0.36	8.0 x 21.0 x 26.0	2.0	41364	550			500
0.39 0.43	8.5 x 21.5 x 26.0	2.1	41394 41434	500			450
0.47	9.0 x 22.0 x 26.0	2.4	41474	450			450
0.51	9.5 x 22.5 x 26.0	2.5	41514	450			400
0.56	10.0 x 23.0 x 26.0	2.6	41564	400			400
0.62	10.5 x 23.5 x 26.0	2.7	41624	350			350
<b>Pitch = 27.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 27.5 mm</b>
0.68	10.0 x 23.0 x 30.0	5.0	41684	450			
0.75	10.5 x 23.5 x 30.0	5.0	41754	450			
0.82	11.0 x 24.0 x 30.0	5.5	41824	400			
0.91	11.5 x 24.5 x 30.0	5.5	41914	400			
1.0	12.0 x 25.0 x 30.0	6.0	41105	350			
1.1	12.5 x 25.5 x 30.0	6.5	41115	350			
1.2	13.0 x 26.0 x 30.0	6.5	41125	300			

$U_{Rdc} = 250$  V;  $U_{Rac} = 160$  V;  $U_{p-p} = 450$  V (monitor lock lead)

C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/- 0.5$ mm	
			C-tol = $\pm 5$ %	SPQ
last 5 digits of catalog number				
<b>Pitch = 10.0 <math>\pm</math> 1.0 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>				
0.022 0.024 0.027 0.03 0.033 0.036 0.039 0.043 0.047	6.0 x 18.0 x 12.5	0.9	90379 90381 90382 90383 90384 90385 90386 90387 90388	1400



# MKP 479 Monitor

Vishay BCcomponents

AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type



C ( $\mu$ F)	DIMENSIONS $w_{max} \times h_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			It = 4.0 + 1.0/- 0.5 mm	
			C-tol = $\pm$ 5 %	SPQ
last 5 digits of catalog number				
<b>Pitch = 15.0 <math>\pm</math> 1.0 mm; <math>d_t</math> = 0.80 <math>\pm</math> 0.08 mm</b>				
0.051	6.5 x 18.5 x 18.5	1.3	90389	1250
0.056			90391	
0.062			90392	
0.068			90393	
0.075			90394	
0.082			90395	
0.091	7.0 x 19.0 x 18.5	1.4	90396	1250
0.1			90397	
0.11			90398	
0.12			90399	
0.13	7.5 x 19.5 x 18.5	1.5	90401	1000
0.15			90402	
0.16	8.0 x 20.0 x 18.5	1.6	90403	1000
0.18	8.5 x 20.5 x 18.5	1.7	90404	900
0.2			90405	
0.22	9.0 x 21.0 x 18.5	1.8	90406	800
<b>Pitch = 22.5 <math>\pm</math> 1.0 mm; <math>d_t</math> = 0.80 <math>\pm</math> 0.08 mm</b>				
0.24	6.5 x 22.5 x 26.0	1.7	90407	900
0.27	7.0 x 23.0 x 26.0	1.8	90408	850
0.3	7.5 x 23.5 x 26.0	1.9	90409	750
0.33			90411	
0.36	8.0 x 24.0 x 26.0	2.0	90412	700
0.39	8.5 x 24.5 x 26.0	2.1	90413	650
0.43			90414	
0.47	9.0 x 25.0 x 26.0	2.4	90415	600
0.51	9.5 x 25.5 x 26.0	2.5	90416	550
0.56	10.0 x 26.0 x 26.0	2.6	90417	500
0.62	10.5 x 26.5 x 26.0	2.7	90418	500
<b>Pitch = 27.5 <math>\pm</math> 1.0 mm; <math>d_t</math> = 0.80 <math>\pm</math> 0.08 mm</b>				
0.68	10.0 x 26.0 x 30.0	5.0	90419	400
0.75	10.5 x 26.5 x 30.0	5.0	90421	400
0.82	11.0 x 27.0 x 30.0	5.5	90422	350
0.91	11.5 x 27.5 x 30.0	5.5	90423	350
1.0	12.0 x 28.0 x 30.0	6.0	90424	350
1.1	12.5 x 28.5 x 30.0	6.5	90425	300
1.2	13.0 x 29.0 x 30.0	6.5	90426	300



**SPECIFIC REFERENCE DATA (400 VDC MONITOR)**

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle:		
0.01 μF < C ≤ 0.027 μF	≤ 5 × 10 <sup>-4</sup>	≤ 15 × 10 <sup>-4</sup>
0.027 μF < C ≤ 0.075 μF	≤ 5 × 10 <sup>-4</sup>	≤ 20 × 10 <sup>-4</sup>
0.075 μF < C ≤ 0.11 μF	≤ 5 × 10 <sup>-4</sup>	≤ 25 × 10 <sup>-4</sup>
0.12 μF < C ≤ 0.18 μF	≤ 10 × 10 <sup>-4</sup>	≤ 30 × 10 <sup>-4</sup>
0.18 μF < C ≤ 0.3 μF	≤ 10 × 10 <sup>-4</sup>	≤ 35 × 10 <sup>-4</sup>
0.3 μF < C ≤ 0.39 μF	≤ 10 × 10 <sup>-4</sup>	≤ 40 × 10 <sup>-4</sup>
0.39 μF < C ≤ 0.56 μF	≤ 10 × 10 <sup>-4</sup>	≤ 45 × 10 <sup>-4</sup>
0.56 μF < C ≤ 0.68 μF	≤ 10 × 10 <sup>-4</sup>	≤ 50 × 10 <sup>-4</sup>
Rated voltage pulse slope (dU/dt) <sub>R</sub> :		
P = 10.0 mm	200 V/μs	
P = 15.0 mm	180 V/μs	
P = 22.5 mm	90 V/μs	
P = 27.5 mm	60 V/μs	
R between leads, for C ≤ 1.0 μF at 100 V; 1 minute	> 100000 MΩ	
R between leads and case; 100 V; 1 minute	> 100000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 220 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	640 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

**U<sub>Rdc</sub> = 400 V; U<sub>Rac</sub> = 200 V; U<sub>p-p</sub> = 560 V (monitor standard)**

C (μF)	DIMENSIONS w <sub>max</sub> x h (h') <sub>max</sub> x l <sub>max</sub> (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			l <sub>t</sub> = 5.0 ± 1.0 mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = ± 5 %	SPQ	C-tol = ± 5 %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
<b>Pitch = 10.0 ± 0.4 mm; d<sub>t</sub> = 0.60 ± 0.06 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 10.0 mm</b>	
0.01	6.0 x 15.0 x 12.5	0.9	51103	1000		1000	
0.011			51113				
0.012			51123				
0.013			51133				
0.015			51153				
0.016			51163				
0.018			51183				
0.02			51203				
0.022	6.0 x 15.0 x 12.5	0.9	51223	1000		1000	
0.024			51243				
0.027	6.5 x 15.5 x 12.5	1.0	51273	1000		900	
<b>Pitch = 15.0 ± 0.4 mm; d<sub>t</sub> = 0.80 ± 0.08 mm</b>					<b>pitch = 7.5 mm (bent back)</b>	<b>pitch = 15.0 mm</b>	
0.03	6.5 x 15.5 (17.0) x 18.5	1.3	51303	1500	59303	750	900
0.033			51333		59333		
0.036			51363		59363		
0.039			51393		59393		
0.043			51433		59433		
0.047			51473		59473		
0.051			51513		59513		
0.056			51563		59563		
0.062	7.0 x 16.0 (17.5) x 18.5	1.4	51623	1250	59623	700	800
0.068	7.5 x 16.5 (18.0) x 18.5	1.5	51683	1250	59683	650	800

# MKP 479 Monitor

Vishay BCcomponents

AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type



C ( $\mu$ F)	DIMENSIONS $w_{max} \times h (h')_{max} \times l_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING				
			LOOSE IN BOX		REEL		
			$l_t = 5.0 \pm 1.0$ mm	all leads	pitch 7.5 mm (bent back)		original pitch
			C-tol = $\pm 5$ %	SPQ	C-tol = $\pm 5$ %	SPQ	SPQ
last 5 digits of catalog number	last 5 digits of catalog number						
0.075	8.0 x 17.0 (18.5) x 18.5	1.6	51753	1250	59753	600	700
0.082			51823		59823		
0.091	8.5 x 17.5 (19.0) x 18.5	1.7	51913	1000	59913	550	700
0.1	9.0 x 18.0 (19.5) x 18.5	1.8	51104	1000	59104	550	600
0.11	9.5 x 18.5 (20.0) x 18.5	1.9	51114	900	59114	500	600
<b>Pitch = 22.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 22.5 mm</b>
0.12	6.5 x 19.5 x 26.0	1.7	51124	750			600
0.13	7.0 x 20.0 x 26.0	1.8	51134	650			550
0.15	7.5 x 20.5 x 26.0	1.9	51154	600			500
0.16			51164				
0.18	8.0 x 21.0 x 26.0	2.0	51184	550			500
0.20	8.5 x 21.5 x 26.0	2.1	51204	500			450
0.22	9.0 x 22.0 x 26.0	2.4	51224	450			450
0.24			51244				
0.27	9.5 x 22.5 x 26.0	2.5	51274	450			400
0.30	10.0 x 23.0 x 26.0	2.7	51304	400			400
<b>Pitch = 27.5 <math>\pm</math> 0.4 mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>					<b>pitch = 7.5 mm (bent back)</b>		<b>pitch = 27.5 mm</b>
0.33	9.5 x 22.5 x 30.0	5.0	51334	550			
0.36	10.0 x 22.5 x 30.0	5.0	51364	500			
0.39	10.5 x 23.0 x 30.0	5.0	51394	450			
0.43	11.0 x 23.0 x 30.0	5.5	51434	450			
0.47	11.5 x 24.5 x 30.0	5.5	51474	400			
0.51	12.0 x 25.0 x 30.0	6.0	51514	350			
0.56	13.0 x 26.0 x 30.0	6.5	51564	300			
0.62	13.5 x 26.5 x 30.0	6.5	51624	300			
0.68	14.0 x 27.0 x 30.0	7.0	51684	300			

$U_{Rdc} = 400$  V;  $U_{Rac} = 200$  V;  $U_{p-p} = 560$  V (monitor lock lead)

C ( $\mu$ F)	DIMENSIONS $W_{max} \times H_{max} \times L_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/-0.5$ mm	
			C-tol = $\pm 5$ %	SPQ
last 5 digits of catalog number				
<b>Pitch = 10.0 <math>\pm</math> 1.0 mm; <math>d_t = 0.60 \pm 0.06</math> mm</b>				
0.01	6.0 x 18.0 x 12.5	0.9	90427	1400
0.011			90428	
0.012			90429	
0.013			90431	
0.015			90432	
0.016			90433	
0.018			90434	
0.02			90435	
0.022			90436	
0.024			90437	
0.027	6.5 x 18.5 x 12.5	1.0	90438	1250



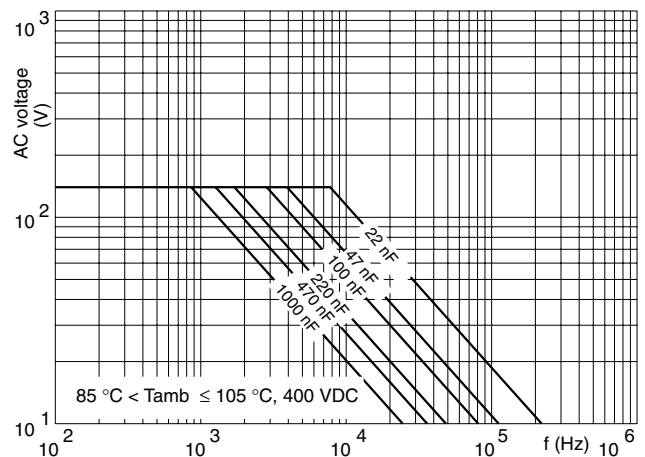
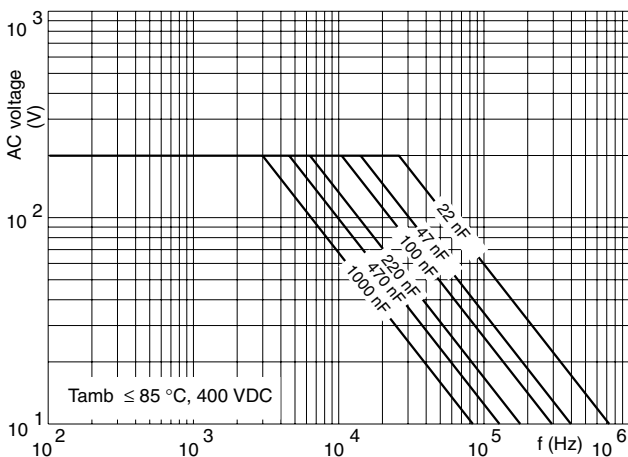
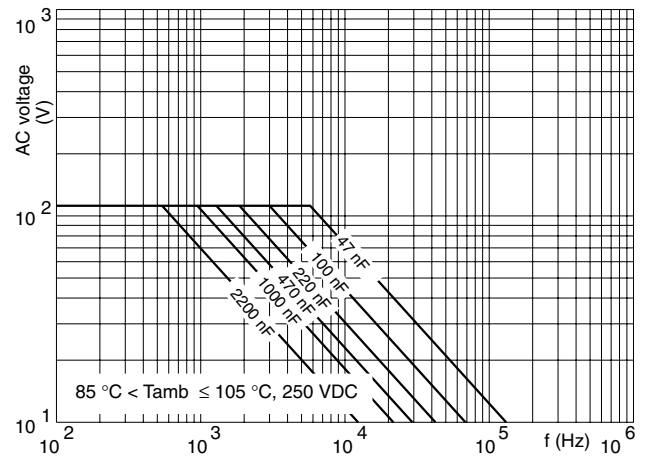
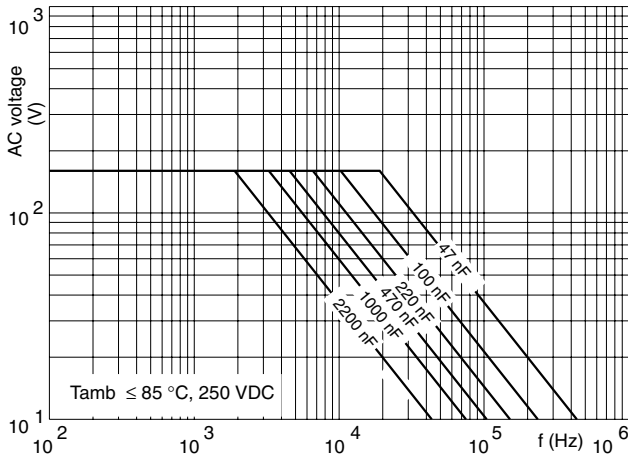
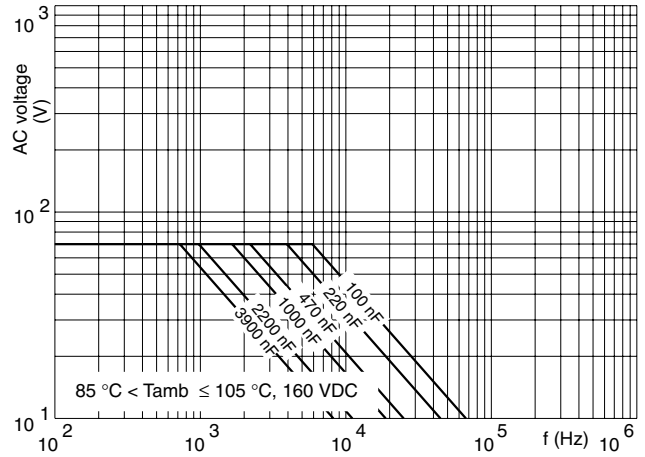
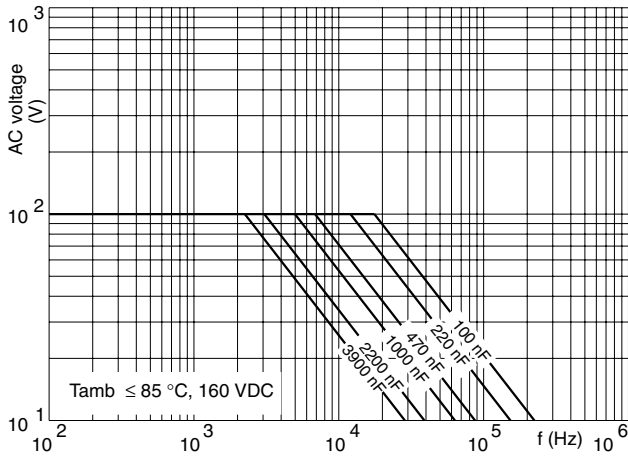
# MKP 479 Monitor

AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

Vishay BCcomponents

C ( $\mu$ F)	DIMENSIONS $W_{max} \times H_{max} \times L_{max}$ (mm)	MASS (g)	CATALOG NUMBER 2222 479 ..... AND PACKAGING	
			LOOSE IN BOX	
			$l_t = 4.0 + 1.0/-0.5$ mm	
			C-tol = $\pm 5$ % last 5 digits of catalog number	SPQ
<b>Pitch = <math>15.0 \pm 1.0</math> mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.03	6.5 x 18.5 x 18.5	1.3	90439	1250
0.033			90441	
0.036			90442	
0.039			90443	
0.043			90444	
0.047			90445	
0.051			90446	
0.056			90447	
0.062	7.0 x 19.0 x 18.5	1.4	90448	1250
0.068	7.5 x 19.5 x 18.5	1.5	90449	1000
0.075	8.0 x 20.0 x 18.5	1.6	90451	1000
0.082			90452	
0.091	8.5 x 20.5 x 18.5	1.7	90453	900
0.1	9.0 x 21.0 x 18.5	1.8	90454	800
0.11	9.5 x 21.5 x 18.5	1.9	90455	800
<b>Pitch = <math>22.5 \pm 1.0</math> mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.12	6.5 x 22.5 x 26.0	1.7	90456	800
0.13	7.0 x 23.0 x 26.0	1.8	90457	800
0.15	7.5 x 23.5 x 26.0	1.9	90458	800
0.16			90459	
0.18	8.0 x 24.0 x 26.0	2.0	90461	800
0.20	8.5 x 24.5 x 26.0	2.1	90462	800
0.22	9.0 x 25.0 x 26.0	2.4	90463	800
0.24			90464	
0.27	9.5 x 25.5 x 26.0	2.5	90465	800
0.30	10.0 x 26.0 x 26.0	2.7	90466	800
<b>Pitch = <math>27.5 \pm 1.0</math> mm; <math>d_t = 0.80 \pm 0.08</math> mm</b>				
0.33	9.5 x 25.5 x 30.0	5.0	90467	800
0.36	10.0 x 25.5 x 30.0	5.0	90468	800
0.39	10.5 x 26.0 x 30.0	5.0	90469	800
0.43	11.0 x 26.0 x 30.0	5.5	90471	800
0.47	11.5 x 27.5 x 30.0	5.5	90472	800
0.51	12.0 x 28.0 x 30.0	6.0	90473	800
0.56	13.0 x 29.0 x 30.0	6.5	90474	800
0.62	13.5 x 29.5 x 30.0	6.5	90475	800
0.68	14.0 x 30.0 x 30.0	7.0	90476	800

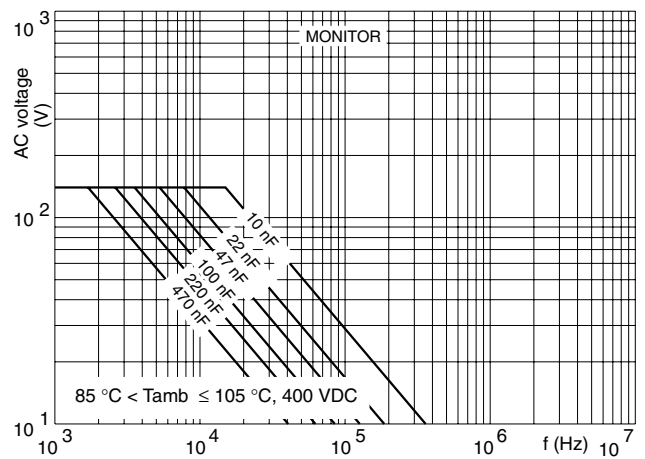
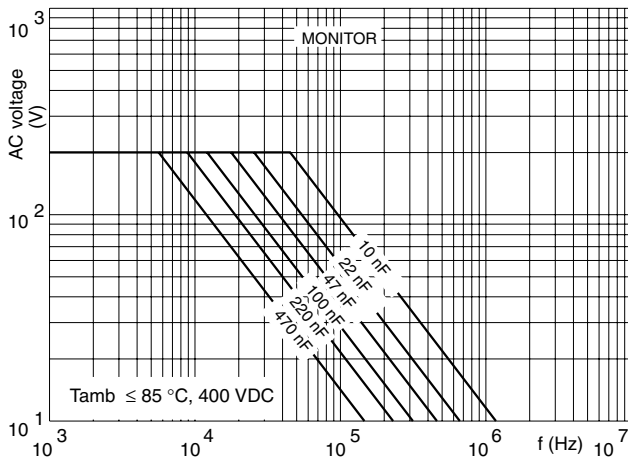
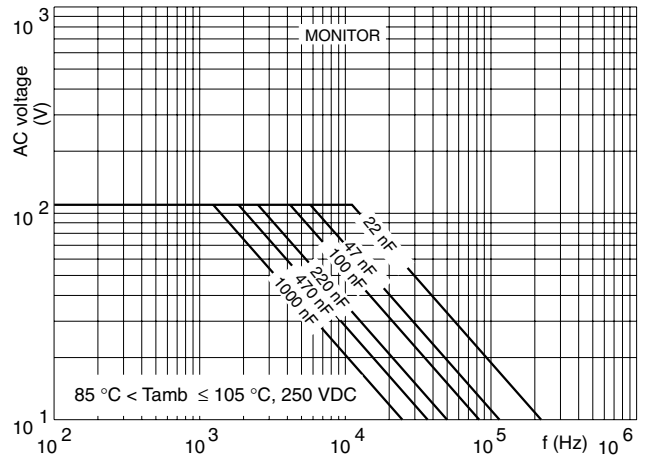
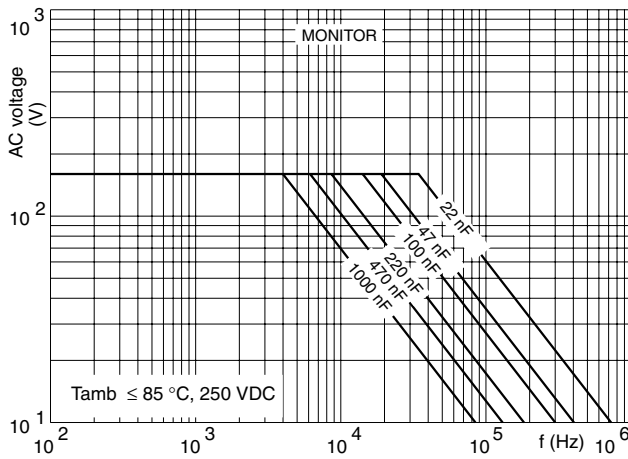
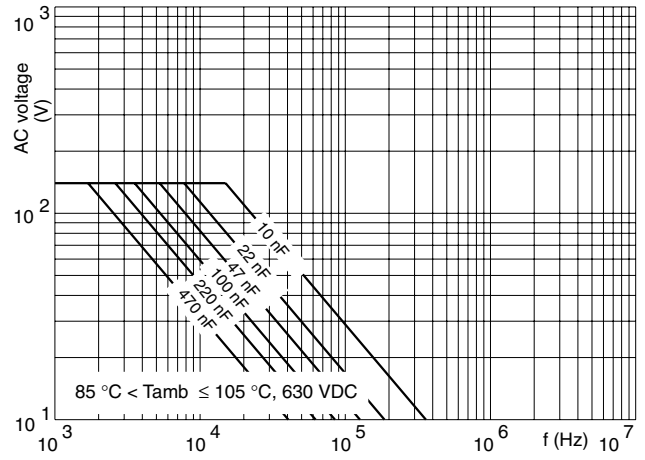
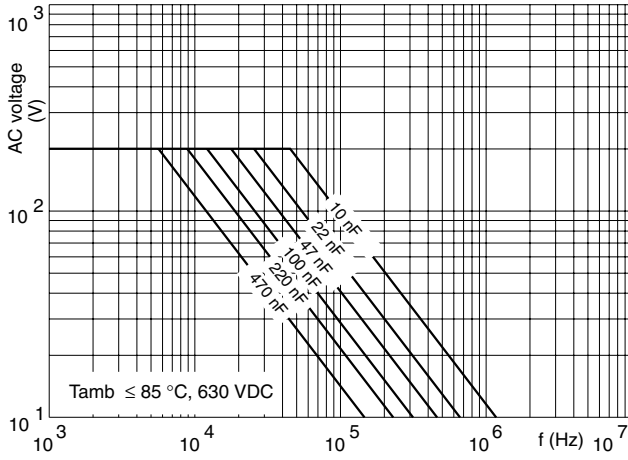
MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY



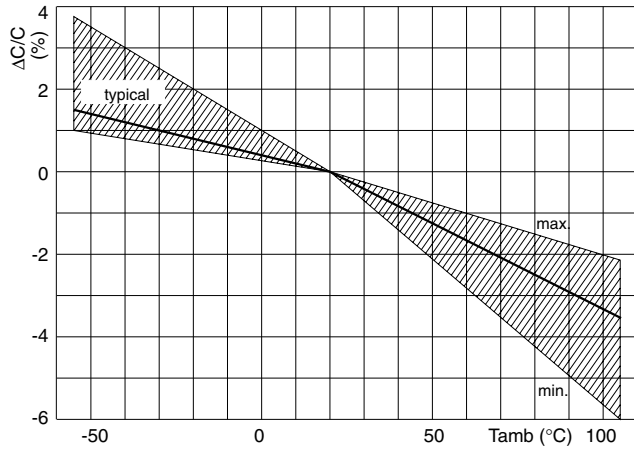


AC and Pulse Polypropylene  
Film Capacitors MKP Radial Epoxy  
Lacquered Type

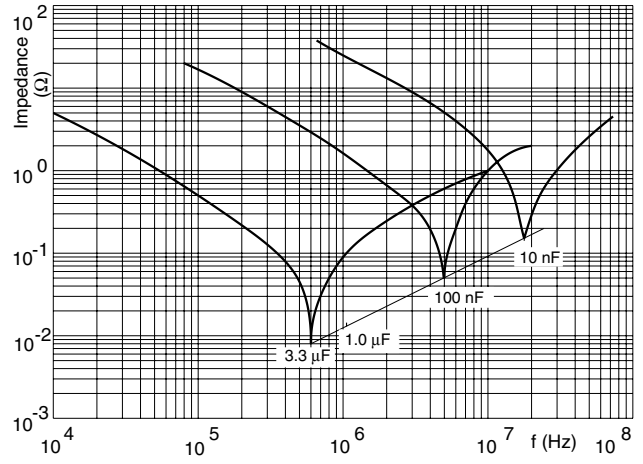
Vishay BCcomponents



## CAPACITANCE



## IMPEDANCE





## 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.**