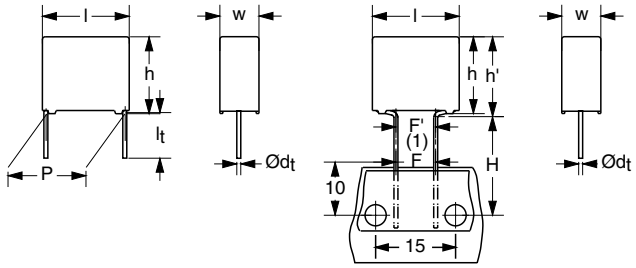
AC and Pulse Double Metallized Polypropylene Film Capacitors
MMKP Radial Potted Type



Dimensions in mm

(1) $|F - F'| < 0.3$ mm
$F = 7.5 + 0.6/- 0.1$ mm

APPLICATIONS

Where steep pulses occur e.g. SMPS (switch mode power supplies). Electronic lighting e.g. Ballast. Motor control circuits. S - correction. For flyback applications please use 1400 V series. For hot asphalt encapsulation process.

MARKING

C-value; tolerance; rated voltage; code for dielectric material; code for factory of origin; manufacturer's type designation; manufacturer; year and week of manufacture

DIELECTRIC

Polypropylene film

ELECTRODES

Metallized film

ENCAPSULATION

Flame retardant plastic case and epoxy resin (UL-class 94 V-0)

CONSTRUCTION

Internal serial construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES):

0.001 to 2.7 µF

CAPACITANCE TOLERANCE:

± 5 %

FEATURES

7.5 mm bent back pitch. 15 to 27.5 mm lead pitch. Low contact resistance. Low loss dielectric. Small dimensions for high density packaging. Supplied loose in box and taped on reel

Lead (Pb)-free product

RoHS-compliant product

RoHS COMPLIANT

RATED (DC) VOLTAGE

250 V; 400 V; 630 V; 1000 V; 1400 V;1600 V; 2000 V; 2500 V

RATED (AC) VOLTAGE

125 V; 200 V; 220 V; 350 V; 500 V; 550 V; 700 V; 900 V

RATED PEAK-TO-PEAK VOLTAGE

350 V; 560 V; 630 V; 1000 V; 1400 V; 1600 V; 2000 V; 2500 V

CLIMATIC CATEGORY

55/105/56

RATED (DC) TEMPERATURE

85 °C

RATED (AC) TEMPERATURE

105 °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

COMPOSITION OF CATALOG NUMBER

TYPE AND PITCHES	
383	15.0/7.5 mm
	15.0 mm
	22.5 mm
	27.5 mm

CAPACITANCE (numerically)

Example:
104 = 10 x 10 = 100 nF

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

2222	383	XX	XX	X
BFC2*	383	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	C-TOL	250 V	400 V	630 V	1000 V	1400 V	1600 V	2000 V	2500 V
			PREFERRED TYPES								
383	loose in box	lead length 3.5 mm	± 5 %	00	10	20	30	40	50	60	70
383	taped on reel (bent back)	H = 16.0 mm; P_0 = 15.0 mm reel diameter = 500 mm	± 5 %	03	13	23	33	43	53	63	–
				dimensions relating to this code should remain in Parenthesis							
			ON REQUEST								
383	loose in box	lead length 5.0 mm	± 5 %	01	11	21	31	41	51	61	71
		lead length 25.0 mm	± 5 %	04	14	24	34	44	54	64	74
	taped on reel	H = 18.5 mm; P_0 = 12.7 mm	± 5 %	02	12	22	32	42	52	62	72
	taped on reel (bent back)	H = 16.0 mm; P_0 = 15.0 mm reel diameter = 356 mm	± 5 %	05	15	25	35	45	55	65	–
				dimensions relating to this code should remain in Parenthesis							
	taped on reel (bent back)	H = 16.0 mm; P_0 = 15.0 mm reel diameter = 356 mm for hot asphalt encapsulation	± 5 %	–	–	–	–	46	56	66	–
				dimensions relating to this code should remain in Parenthesis							

SPECIFIC REFERENCE DATA (250 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.15\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
$0.15\ \mu F < C \leq 0.39\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 25 \times 10^{-4}$
$0.39\ \mu F < C \leq 0.56\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 45 \times 10^{-4}$
$0.56\ \mu F < C \leq 0.82\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 50 \times 10^{-4}$
$0.82\ \mu F < C \leq 1.2\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 65 \times 10^{-4}$
$1.2\ \mu F < C \leq 1.8\ \mu F$	$\leq 15 \times 10^{-4}$	$\leq 75 \times 10^{-4}$
$1.8\ \mu F < C \leq 2.2\ \mu F$	$\leq 15 \times 10^{-4}$	$\leq 85 \times 10^{-4}$
$2.2\ \mu F < C \leq 2.7\ \mu F$	$\leq 15 \times 10^{-4}$	$\leq 95 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), for $C \leq 0.15\ \mu F$	450 V/µs	
P = 15.0 mm and 7.5 mm (bent back),for $0.15\ \mu F < C \leq 0.39\ \mu F$	900 V/µs	
P = 22.5 mm	290 V/µs	
P = 27.5 mm, for $0.82\ \mu F < C \leq 2\ \mu F$	190 V/µs	
P = 27.5 mm, for $2\ \mu F < C \leq 2.7\ \mu F$	130 V/µs	
R between leads, for $C \leq 1\ \mu F$ 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	> 30000 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	400 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

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U_{Rdc} = 250 V; U_{Rac} = 125 V/U_{p-p} = 350 V

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 15.0 mm**	**pitch = 7.5 mm (bent back)**		
0.082	5.0 × 11.0 (13.0) × 17.5	1.2	00823	1250	1000	1100	03823	950	550
0.091			00913				03913		
0.1			00104				03104		
0.11	6.0 × 12.0 (14.0) × 17.5	1.5	00114	1000	1000	900	03114	800	450
0.12			00124				03124		
0.13			00134				03134		
0.15			00154				03154		
0.16	7.0 × 13.5 (15.5) × 17.5	2.0	00164	750	500	800	03164	700	400
0.18			00184				03184		
0.2			00204				03204		
0.22	8.5 × 15.0 (17.0) × 17.5	2.7	00224	750	500	650	03224	550	300
0.24			00244				03244		
0.27			00274				03274		
0.3			00304				03304		
0.33	10.0 × 16.5 (18.5) × 17.5	3.3	00334	500	450	600	03334	500	250
0.36			00364				03364		
0.39			00394				03394		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 22.5 mm**	**pitch = 7.5 mm (bent back)**		
0.43	7.0 × 16.5 × 26.0	3.5	00434	200	250	550			
0.47	8.5 × 18.0 × 26.0	4.8	00474	200	250	450			
0.51			00514						
0.56			00564						
0.62			00624						
0.68	10.0 × 19.5 × 26.0	6.0	00684	200	200	350			
0.75			00754						
0.82			00824						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 27.5 mm**	**pitch = 7.5 mm (bent back)**		
0.91	11.0 × 21.0 × 31.0	8.4	00914	100	125				
1.0			00105						
1.1			00115						
1.2			00125						
1.3	13.0 × 23.0 × 31.0	11.0	00135	100	125				
1.5			00155						
1.6			00165						
1.8	15.0 × 25.0 × 31.0	13.6	00185	100	125				
2.0			00205						
2.2	18.0 × 28.0 × 31.0	18.5	00225	100	100				
2.4			00245						
2.7			00275						

SPECIFIC REFERENCE DATA (400 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.22\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
$0.22\ \mu F < C \leq 0.33\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
$0.33\ \mu F < C \leq 0.43\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 40 \times 10^{-4}$
$0.43\ \mu F < C \leq 0.68\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 50 \times 10^{-4}$
$0.68\ \mu F < C \leq 0.82\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 55 \times 10^{-4}$
$0.82\ \mu F < C \leq 1.2\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 60 \times 10^{-4}$
$1.2\ \mu F < C \leq 1.5\ \mu F$	$\leq 10 \times 10^{-4}$	$\leq 65 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), $C \leq 0.082\ \mu F$	600 V/µs	
P = 15.0 mm and 7.5 mm (bent back), $0.082\ \mu F < C \leq 0.22\ \mu F$	1200 V/µs	
P = 22.5 mm	410 V/µs	
P = 27.5 mm; for $0.43\ \mu F < C \leq 1.1\ \mu F$	260 V/µs	
P = 27.5 mm; for $1.1\ \mu F < C \leq 1.5\ \mu F$	180 V/µs	
R between leads, for $C \leq 1\ \mu F$ 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	> 30000 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	560 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 400 V; U_{Rac} = 200 V/$U_{p\text{-}p}$ = 560 V

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 MM (BENT BACK)		
			C-tol = ± 5%				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 15.0 mm	pitch = 7.5 mm (bent back)		
0.047	5.0 × 11.0 (13.0) × 17.5	1.2	10473	1250	1000	1100	13473	950	550
0.051			10513				13513		
0.056			10563				13563		
0.062	6.0 × 12.0 (14.0) × 17.5	1.5	10623	1000	1000	900	13623	800	450
0.068			10683				13683		
0.075			10753				13753		
0.082			10823				13823		
0.091	7.0 × 13.5 (15.5) × 17.5	2.0	10913	750	500	800	13913	700	400
0.1			10104				13104		
0.11			10114				13114		
0.12	8.5 × 15.0 (17.0) × 17.5	2.7	10124	750	500	650	13124	550	300
0.13			10134				13134		
0.15			10154				13154		
0.16			10164				13164		
0.18	10.0 × 16.5 (18.5) × 17.5	3.3	10184	500	450	600	13184	500	250
0.2			10204				13204		
0.22			10224				13224		

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 MM (BENT BACK)		
			C-tol = ± 5%				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 22.5 mm**	**pitch = 7.5 mm (bent back)**		
0.24	7.0 × 16.5 × 26.0	3.5	10244	200	250	550			
0.27	8.5 × 18.0 × 26.0	4.8	10274	200	250	450			
0.3			10304						
0.33			10334						
0.36	10.0 × 19.5 × 26.0	6.0	10364	200	200	350			
0.39			10394						
0.43			10434						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 27.5 mm**	**pitch = 7.5 mm (bent back)**		
0.47	11.0 × 21.0 × 31.0	8.4	10474	100	125				
0.51			10514						
0.56			10564						
0.62			10624						
0.68	13.0 × 23.0 × 31.0	11.0	10684	100	125				
0.75			10754						
0.82			10824						
0.91	15.0 × 25.0 × 31.0	13.6	10914	100	125				
1			10105						
1.1			10115						
1.2	18.0 × 28.0 × 31.0	18.5	10125	100	100				
1.3			10135						
1.5			10155						

SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
C ≤ 0.15 µF	≤ 5×10^{-4}	≤ 15×10^{-4}
0.15 µF < C ≤ 0.22 µF	≤ 8×10^{-4}	≤ 25×10^{-4}
0.22 µF < C ≤ 0.3 µF	≤ 8×10^{-4}	≤ 30×10^{-4}
0.3 µF < C ≤ 0.47 µF	≤ 10×10^{-4}	≤ 40×10^{-4}
0.47 µF < C ≤ 0.68 µF	≤ 10×10^{-4}	≤ 45×10^{-4}
0.68 µF < C ≤ 1.0 µF	≤ 10×10^{-4}	≤ 50×10^{-4}
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), C ≤ 0.056 µF	700 V/µs	
P = 15.0 mm and 7.5 mm (bent back), 0.056 µF < C ≤ 0.15 µF	1400 V/µs	
P = 22.5 mm	470 V/µs	
P = 27.5 mm, for 0.3 µF < C ≤ 0.75 µF	300 V/µs	
P = 27.5 mm, for 0.75 µF < C ≤ 1 µF	210 V/µs	
R between leads, for C ≤ 1 µF at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 250 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	1000 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 630 V; U_{Rac} = 220 V/U_{p-p} = 630 V

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5%				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 15.0 mm**	**pitch = 7.5 mm (bent back)**		
0.03	5.0 × 11.0 (13.0) × 17.5	1.2	20303	1250	1000	1100	23303	950	550
0.033			20333				23333		
0.036			20363				23363		
0.039	6.0 × 12.0 (14.0) × 17.5	1.5	20393	1000	1000	900	23393	800	450
0.043			20433				23433		
0.047			20473				23473		
0.051			20513				23513		
0.056			20563				23563		
0.062	7.0 × 13.5 (15.5) × 17.5	2.0	20623	750	500	800	23623	700	400
0.068			20683				23683		
0.075			20753				23753		
0.082	8.5 × 15.0 (17.0) × 17.5	2.7	20823	750	500	650	23823	550	300
0.091			20913				23913		
0.1			20104				23104		
0.11			20114				23114		
0.12	10.0 × 16.5 (18.5) × 17.5	3.3	20124	500	450	600	23124	500	250
0.13			20134				23134		
0.15			20154				23154		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 22.5 mm**	**pitch = 7.5 mm (bent back)**		
0.16	8.5 × 18.0 × 26.0	4.8	20164	200	250	450			
0.18			20184						
0.2			20204						
0.22			20224						
0.24	10.0 × 19.5 × 26.0	6.0	20244	200	200	350			
0.27			20274						
0.3			20304						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 27.5 mm**	**pitch = 7.5 mm (bent back)**		
0.33	11.0 × 21.0 × 31.0	8.4	20334	100	125				
0.36			20364						
0.39			20394						
0.43			20434						
0.47	13.0 × 23.0 × 31.0	11.0	20474	100	125				
0.51			20514						
0.56			20564						
0.62	15.0 × 25.0 × 31.0	13.6	20624	100	125				
0.68			20684						
0.75			20754						
0.82	18.0 × 28.0 × 31.0	18.5	20824	100	100				
0.91			20914						
1			20105						

AC and Pulse Double Metallized Polypropylene Film Capacitors MMKP Radial Potted Type

SPECIFIC REFERENCE DATA (1000 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.062\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
$0.062\ \mu F < C \leq 0.13\ \mu F$	$\leq 6 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
$0.13\ \mu F < C \leq 0.22\ \mu F$	$\leq 8 \times 10^{-4}$	$\leq 25 \times 10^{-4}$
$0.22\ \mu F < C \leq 0.33\ \mu F$	$\leq 8 \times 10^{-4}$	$\leq 30 \times 10^{-4}$
$0.33\ \mu F < C \leq 0.47\ \mu F$	$\leq 8 \times 10^{-4}$	$\leq 35 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), $C \leq 0.024\ \mu F$	1700 V/µs	
P = 15.0 mm and 7.5 mm (bent back), $0.024\ \mu F < C \leq 0.062\ \mu F$	3300 V/µs	
P = 22.5 mm	1200 V/µs	
P = 27.5 mm, for $0.13\ \mu F < C \leq 0.33\ \mu F$	700 V/µs	
P = 27.5 mm, for $0.33\ \mu F < C \leq 0.47\ \mu F$	470 V/µs	
R between leads, for $C \leq 1\ \mu F$ at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 50 pC peak discharge	> 440 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	1600 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 1000 V; U_{Rac} = 350 V/U_{p-p} = 1000 V

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 15.0 mm	pitch = 7.5 mm (bent back)		
0.0043	5.0 × 11.0 (13.0) × 17.5	1.2	30432	1250	1000	1100	33432	950	550
0.0047			30472				33472		
0.0051			30512				33512		
0.0056			30562				33562		
0.0062			30622				33622		
0.0068			30682				33682		
0.0075			30752				33752		
0.0082			30822				33822		
0.0091			30912				33912		
0.010			30103				33103		
0.011			30113				33113		
0.012			30123				33123		
0.013			30133				33133		
0.015			30153				33153		
0.016			30163				33163		
0.018	6.0 × 12.0 (14.0) × 17.5	1.5	30183	1000	1000	900	33183	800	450
0.02			30203				33203		
0.022			30223				33223		
0.024			30243				33243		
0.027	7.0 × 13.5 (15.5) × 17.5	2.0	30273	750	500	800	33273	700	400
0.03			30303				33303		
0.033			30333				33333		

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
0.036	8.5 × 15.0 (17.0) × 17.5	2.7	30363	750	500	650	33363	550	300
0.039			30393				33393		
0.043			30433				33433		
0.047			30473				33473		
0.051	10.0 × 16.5 (18.5) × 17.5	3.3	30513	500	450	600	33513	500	250
0.056			30563				33563		
0.062			30623				33623		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 22.5 mm**	**pitch = 7.5 mm (bent back)**		
0.068	7.0 × 16.5 × 26.0	3.5	30683	200	250	550			
0.075	8.5 × 18.0 × 26.0	4.8	30753	200	250	450			
0.082			30823						
0.091			30913						
0.1	10.0 × 19.5 × 26.0	6.0	30104	200	200	350			
0.11			30114						
0.12			30124						
0.13			30134						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						**pitch = 27.5 mm**	**pitch = 7.5 mm (bent back)**		
0.15	11.0 × 21.0 × 31.0	8.4	30154	100	125				
0.16			30164						
0.18			30184						
0.2	13.0 × 23.0 × 31.0	11.0	30204	100	125				
0.22			30224						
0.24			30244						
0.27	15.0 × 25.0 × 31.0	13.6	30274	100	125				
0.3			30304						
0.33			30334						
0.36	18.0 × 28.0 × 31.0	18.5	30364	100	100				
0.39			30394						
0.43			30434						
0.47			30474						

AC and Pulse Double Metallized Polypropylene Film Capacitors MMKP Radial Potted Type

SPECIFIC REFERENCE DATA (1400 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.016\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
$0.016\ \mu F < C \leq 0.039\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
$0.039\ \mu F < C \leq 0.13\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), for $C \leq 0.0056\ \mu F$	8000 V/µs	
P = 15.0 mm and 7.5 mm (bent back), for $0.0056\ \mu F < C \leq 0.016\ \mu F$	15000 V/µs	
P = 22.5 mm	4000 V/µs	
P = 27.5 mm, for $0.039\ \mu F < C \leq 0.1\ \mu F$	2100 V/µs	
P = 27.5 mm, for $0.1\ \mu F < C \leq 0.13\ \mu F$	1500 V/µs	
R between leads, for $C \leq 1\ \mu F$ at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 20 pC peak discharge	> 500 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	2250 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 1400 V; U_{Rac} = 500 V/U_{p-p} = 1400 V (standard)

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 15.0 mm	pitch = 7.5 mm (bent back)		
0.0022	5.0 × 11.0 (13.0) × 17.5	1.2	40222	1250	1000	1100	43222	950	550
0.0024			40242				43242		
0.0027			40272				43272		
0.003			40302				43302		
0.0033			40332				43332		
0.0036			40362				43362		
0.0039			40392				43392		
0.0043	6.0 × 12.0 (14.0) × 17.5	1.5	40432	1000	1000	900	43432	800	450
0.0047			40472				43472		
0.0051			40512				43512		
0.0056			40562				43562		
0.0062	7.0 × 13.5 (15.5) × 17.5	2.0	40622	750	500	800	43622	700	400
0.0068			40682				43682		
0.0075			40752				43752		
0.0082			40822				43822		
0.0091	8.5 × 15.0 (17.0) × 17.5	2.7	40912	750	500	650	43912	550	300
0.01			40103				43103		
0.011			40113				43113		
0.012			40123				43123		
0.013	10.0 × 16.5 (18.5) × 17.5	3.3	40133	500	450	600	43133	500	250
0.015			40153				43153		
0.016			40163				43163		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 22.5 mm	pitch = 7.5 mm (bent back)		
0.018	7.0 × 16.5 × 26.0	3.5	40183	200	250	550			
0.02			40203						

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
0.022	8.5 × 18.0 × 26.0	4.8	40223	200	250	450			
0.024			40243						
0.027			40273						
0.03	10.0 × 19.5 × 26.0	6.0	40303	200	200	350			
0.033			40333						
0.036			40363						
0.039			40393						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 27.5 mm	pitch = 7.5 mm (bent back)		
0.043	11.0 × 21.0 × 31.0	8.4	40433	100	125				
0.047			40473						
0.051			40513						
0.056			40563						
0.062	13.0 × 23.0 × 31.0	11.0	40623	100	125				
0.068			40683						
0.075			40753						
0.082	15.0 × 25.0 × 31.0	13.6	40823	100	125				
0.091			40913						
0.1			40104						
0.11	18.0 × 28.0 × 31.0	11.0	40114	100	100				
0.12			40124						
0.13			40134						

U_{Rdc} = 1400 V; U_{Rac} = 500 V/U_{p-p} = 1400 V (hot asphalt encapsulation)

C (mF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING	
			REEL; ∅ 356 mm	
			C-tol = ± 5 %	
			last 5 digits of catalog number	SPQ
Pitch = 15.0 ± 0.4 mm; (Pitch = 7.5 ± 0.4 mm for bent back leads); d_t = 0.80 ± 0.08 mm				
0.0022	6.0 × 12.0 (14.0) × 17.5	1.5	46222	450
0.0024			46242	
0.0027			46272	
0.003			46302	
0.0033			46332	
0.0036			46362	
0.0039			46392	
0.0043	7.0 × 13.5 (15.5) × 17.5	2.0	46432	400
0.0047			46472	
0.0051			46512	
0.0056			46562	
0.0062			46622	
0.0068			46682	
0.0075			46752	
0.0082			46822	

AC and Pulse Double Metallized Polypropylene Film Capacitors MMKP Radial Potted Type

SPECIFIC REFERENCE DATA (1600 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.015\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
$0.015\ \mu F < C \leq 0.15\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), for $C \leq 0.0056\ \mu F$	8000 V/µs	
P = 15.0 mm and 7.5 mm (bent back), for $0.0056\ \mu F < C \leq 0.015\ \mu F$	15000 V/µs	
P = 22.5 mm	3100 V/µs	
P = 27.5 mm, for $0.039\ \mu F < C \leq 0.1\ \mu F$	1800 V/µs	
P = 27.5 mm; for $0.1\ \mu F < C \leq 0.15\ \mu F$	1200 V/µs	
R between leads, for $C \leq 1\ \mu F$ at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 20 pC peak discharge	> 660 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	2560 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 1600 V; U_{Rac} = 550 V/U_{p-p} = 1600 V (standard)

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 15.0 mm	pitch = 7.5 mm (bent back)		
0.0027	5.0 × 11.0 (13.0) × 17.5	1.2	50272	1250	1000	1100	53272	950	550
0.003			50302				53302		
0.0033			50332				53332		
0.0036			50362				53362		
0.0039			50392				53392		
0.0043	6.0 × 12.0 (14.0) × 17.5	1.5	50432	1000	1000	900	53432	800	450
0.0047			50472				53472		
0.0051			50512				53512		
0.0056			50562				53562		
0.0062	7.0 × 13.5 (15.5) × 17.5	2.0	50622	750	500	800	53622	700	400
0.0068			50682				53682		
0.0075			50752				53752		
0.0082	8.5 × 15.0 (17.0) × 17.5	2.7	50822	750	500	650	53822	550	300
0.0091			50912				53912		
0.01			50103				53103		
0.011			50113				53113		
0.012	10.0 × 16.5 (18.5) × 17.5	3.3	50123	500	450	600	53123	500	250
0.013			50133				53133		
0.015			50153				53153		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 22.5 mm	pitch = 7.5 mm (bent back)		
0.016	7.0 × 16.5 × 26.0	3.5	50163	200	250	550			
0.018			50183						
0.02			50203						

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
0.022	8.5 × 18.0 × 26.0	4.8	50223	200	250	450			
0.024			50243						
0.027			50273						
0.03			50303						
0.033	10.0 × 19.5 × 26.0	6.0	50333	200	200	350			
0.036			50363						
0.039			50393						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 27.5 mm	pitch = 7.5 mm (bent back)		
0.043	11.0 × 21.0 × 31.0	8.4	50433	100	125				
0.047			50473						
0.051			50513						
0.056			50563						
0.062	13.0 × 23.0 × 31.0	11.0	50623	100	125				
0.068			50683						
0.075			50753						
0.082	15.0 × 25.0 × 31.0	13.6	50823	100	125				
0.091			50913						
0.1			50104						
0.11	18.0 × 28.0 × 31.0	18.5	50114	100	100				
0.12			50124						
0.13			50134						
0.15			50154						

U_{Rdc} = 1600 V; U_{Rac} = 550 V/U_{p-p} = 1600 V (hot asphalt encapsulation)

C (mF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING	
			REEL; ∅ 356 mm	
			C-tol = ± 5 %	
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ
Pitch = 15.0 ± 0.4 mm; (Pitch = 7.5 ± 0.4 mm for bent back leads); d_t = 0.80 ± 0.08 mm				
0.0027	6.0 × 12.0 (14.0) × 17.5	1.5	56272	450
0.003			56302	
0.0033			56332	
0.0036			56362	
0.0039			56392	
0.0043	7.0 × 13.5 (15.5) × 17.5	2.0	56432	400
0.0047			56472	
0.0051			56512	
0.0056			56562	
0.0062			56622	
0.0068			56682	
0.0075			56752	

SPECIFIC REFERENCE DATA (2000 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.01\ \mu F$	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
$0.01\ \mu F < C \leq 0.1\ \mu F$	$\leq 5 \times 10{-}4$	$\leq 18 \times 10{-}4$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 15.0 mm and 7.5 mm (bent back), for $C \leq 0.0036\ \mu F$	11000 V/µs	
P = 15.0 mm and 7.5 mm (bent back), for $0.0036\ \mu F < C \leq 0.01\ \mu F$	20000 V/µs	
P = 22.5 mm	4400 V/µs	
P = 27.5 mm, for $0.024\ \mu F < C \leq 0.068\ \mu F$	2500 V/µs	
P = 27.5 mm, for $0.068\ \mu F < C \leq 0.1\ \mu F$	1800 V/µs	
R between leads, for $C \leq 1\ \mu F$ at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 20 pC peak discharge	> 750 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	3200 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 2000 V; U_{Rac} = 700 V/U_{p-p} = 2000 V (standard)

C (µF)	DIMENSIONS w × h (H') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
Pitch = 15.0 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 15.0 mm	pitch = 7.5 mm (bent back)		
0.001	5.0 × 11.0 (13.0) × 17.5	1.2	60102	1250	1000	1100	63102	950	550
0.0011			60112				63112		
0.0012			60122				63122		
0.0013			60132				63132		
0.0015			60152				63152		
0.0016			60162				63162		
0.0018			60182				63182		
0.002			60202				63202		
0.0022			60222				63222		
0.0024			60242				63242		
0.0027	6.0 × 12.0 (14.0) × 17.5	1.5	60272	1000	1000	900	63272	800	450
0.003			60302				63302		
0.0033			60332				63332		
0.0036			60362				63362		
0.0039	7.0 × 13.5 (15.5) × 17.5	2.0	60392	750	500	800	63392	700	400
0.0043			60432				63432		
0.0047			60472				63472		
0.0051	8.5 × 15.0 (17.0) × 17.5	2.7	60512	750	500	650	63512	550	300
0.0056			60562				63562		
0.0062			60622				63622		
0.0068			60682				63682		
0.0075	10.0 × 16.5 (18.5) × 17.5	3.3	60752	500	450	600	63752	500	250
0.0082			60822				63822		
0.0091			60912				63912		
0.01			60103				63103		
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 22.5 mm	pitch = 7.5 mm (bent back)		
0.011	7.0 × 16.5 × 26.0	3.5	60113	200	250	550			
0.012			60123						
0.013			60133						

C (µF)	DIMENSIONS w × h (H') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING						
			LOOSE IN BOX			REEL			
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	ORIGINAL PITCH	PITCH = 7.5 mm (BENT BACK)		
			C-tol = ± 5 %				C-tol = ± 5 %		
							∅ 500 mm		∅ 356 mm
			LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ	SPQ	LAST 5 DIGITS OF CATALOG NUMBER	SPQ	SPQ
0.015	8.5 × 18.0 × 26.0	4.8	60153	200	250	450			
0.016			60163						
0.018			60183						
0.02	10.0 × 19.5 × 26.0	6.0	60203	200	200	350			
0.022			60223						
0.024			60243						
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						pitch = 27.5 mm	pitch = 7.5 mm (bent back)		
0.027	11.0 × 21.0 × 31.0	8.4	60273	100	125				
0.03			60303						
0.033			60333						
0.036			60363						
0.039			60393						
0.043	13.0 × 23.0 × 31.0	11.0	60433	100	125				
0.047			60473						
0.051			60513						
0.056	15.0 × 25.0 × 31.0	13.6	60563	100	125				
0.062			60623						
0.068			60683						
0.075	18.0 × 28.0 × 31.0	18.5	60753	100	100				
0.082			60823						
0.091			60913						
0.1			60104						

U_{Rdc} = 2000 V; U_{Rac} = 700 V/U_{p-p} = 2000 V (hot asphalt encapsulation)

C (µF)	DIMENSIONS w × h (h') × l (mm)	MASS (g)	CATALOG NUMBER 2222 383 ..... AND PACKAGING	
			REEL; ∅ 356 mm	
			C-tol = ± 5 %	
			last 5 digits of catalog number	SPQ
Pitch = 15.0 ±0.4 mm; (Pitch = 7.5 ±0.4 mm for bent back leads); d_t = 0.80 ±0.08 mm				
0.001	6.0 × 12.0 (14.0) × 17.5	1.5	66102	450
0.0011			66112	
0.0012			66122	
0.0013			66132	
0.0015			66152	
0.0016			66162	
0.0018			66182	
0.002			66202	
0.0022			66222	
0.0024			66242	
0.0027	7.0 × 13.5 (15.5) × 17.5	2.0	66272	400
0.003			66302	
0.0033			66332	
0.0036			66362	
0.0039			66392	
0.0043			66432	
0.0047			66472	

AC and Pulse Double Metallized Polypropylene Film Capacitors MMKP Radial Potted Type

SPECIFIC REFERENCE DATA (2500 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
$C \leq 0.015$ µF	$\leq 5 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
0.015 µF $< C \leq 0.056$ µF	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$:		
P = 22.5 mm	13000 V/µs	
P = 27.5 mm, for 0.015 µF $< C \leq 0.043$ µF	6000 V/µs	
P = 27.5 mm, for 0.043 µF $< C \leq 0.056$ µF	4200 V/µs	
R between leads, for $C \leq 1$ µF at 500 V; 1 minute	> 100000 MΩ	
R between leads and case; 500 V; 1 minute	> 30000 MΩ	
Ionization (AC) voltage (typical value) at 20 pC peak discharge	> 1000 V	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	3500 V; 1 minute	
Withstanding (DC) voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 2500 V; U_{Rac} = 900 V/U_{p-p} = 2500 V

C (µF)	DIMENSIONS w × h × l (mm)	MASS (g)	CATALOG NUMBER AND PACKAGING			
			LOOSE IN BOX			REEL
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	H = 18.5 mm
			C-tol = ± 5 %	SPQ	SPQ	SPQ
Pitch = 22.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						
0.001	6.0 × 15.5 × 26.0	3.0	70102	200	250	600
0.0011			70112			
0.0012			70122			
0.0013			70132			
0.0015			70152			
0.0016			70162			
0.0018			70182			
0.002			70202			
0.0022			70222			
0.0024			70242			
0.0027			70272			
0.003			70302			
0.0033			70332			
0.0036			70362			
0.0039	6.0 × 15.5 × 26.0	3.0	70392	200	250	600
0.0043			70432			
0.0047			70472			
0.0051			70512			
0.0056			70562			
0.0062	7.0 × 16.5 × 26.0	3.5	70622	200	250	550
0.0068			70682			
0.0075			70752			
0.0082	8.5 × 18.0 × 26.0	4.8	70822	200	250	450
0.0091			70912			
0.01			70103			
0.011			70113			

C (µF)	DIMENSIONS w × h × l (mm)	MASS (g)	CATALOG NUMBER AND PACKAGING			
			LOOSE IN BOX			REEL
			lt = 3.5 ± 0.3 mm	SHORT LEADS	LONG LEADS	H = 18.5 mm
			C-tol = ± 5 %	SPQ	SPQ	SPQ
0.012	10.0 × 19.5 × 26.0	6.0	70123	200	200	350
0.013			70133			
0.015			70153			
Pitch = 27.5 ± 0.4 mm; d_t = 0.80 ± 0.08 mm						
0.016	9.0 × 19.0 × 31.0	6.0	70163	100	150	
0.018	11.0 × 21.0 × 31.0	8.4	70183	100	125	
0.02			70203			
0.022			70223			
0.024			70243			
0.027	13.0 × 23.0 × 31.0	11.0	70273	100	125	
0.03			70303			
0.033			70333			
0.036	15.0 × 25.0 × 31.0	13.6	70363	100	125	
0.039			70393			
0.043			70433			
0.047	18.0 × 28.0 × 31.0	18.5	70473	100	100	
0.051			70513			
0.056			70563			

AC and Pulse Double Metallized
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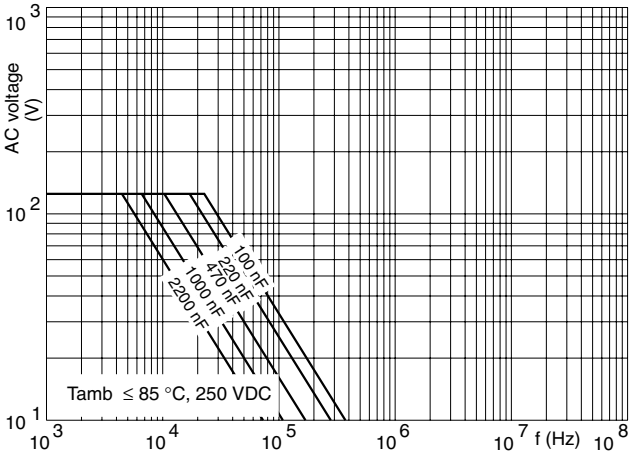
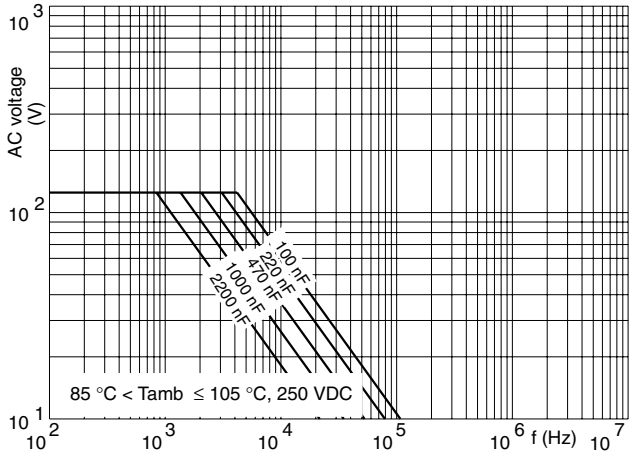
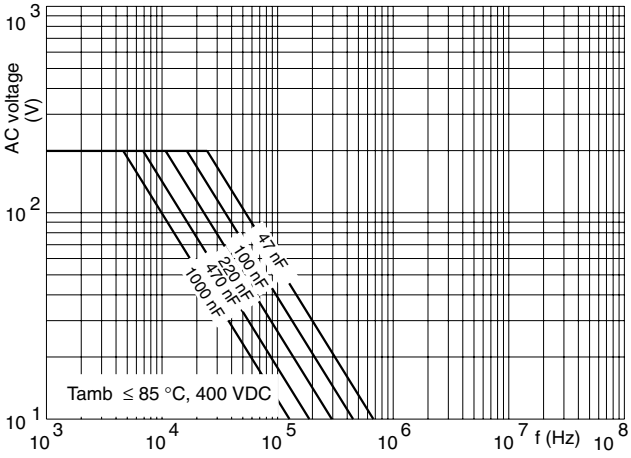
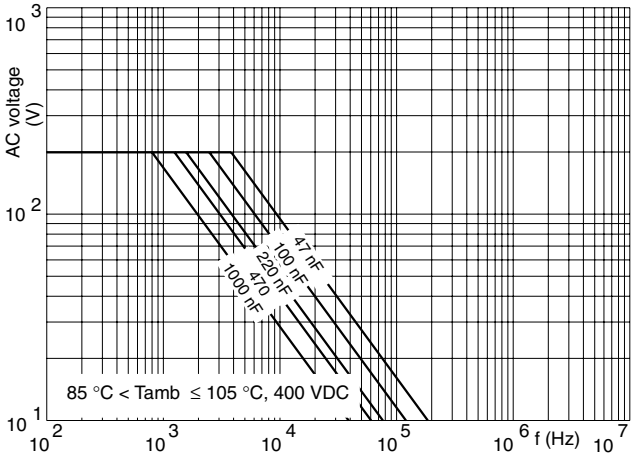
MMKP Radial Potted Type

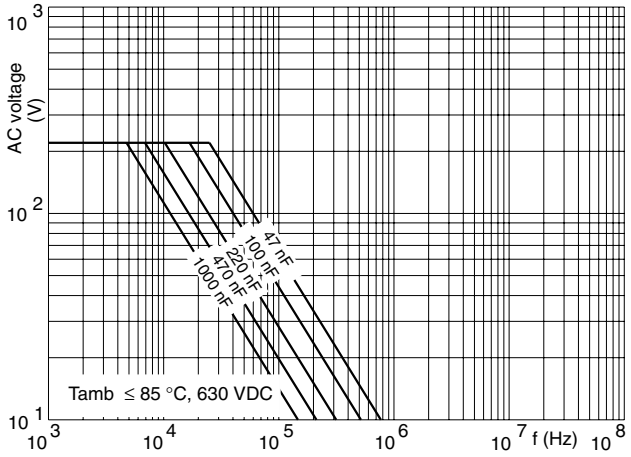
MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY

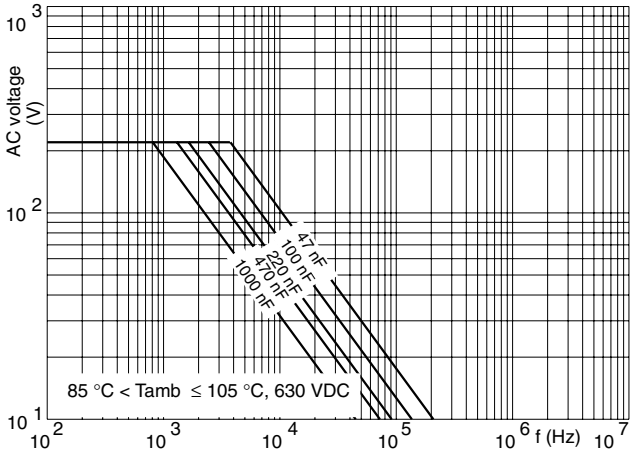


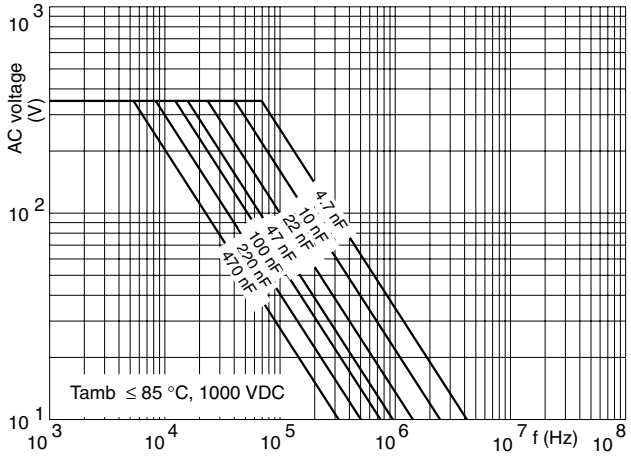


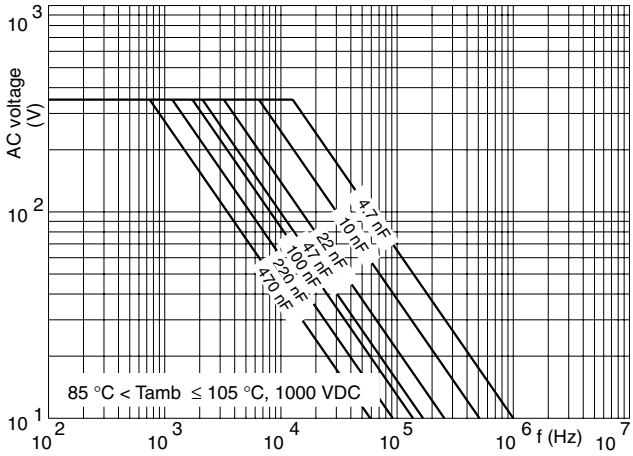


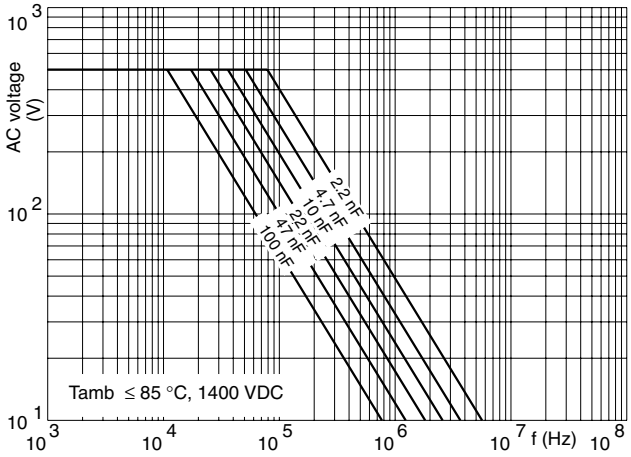


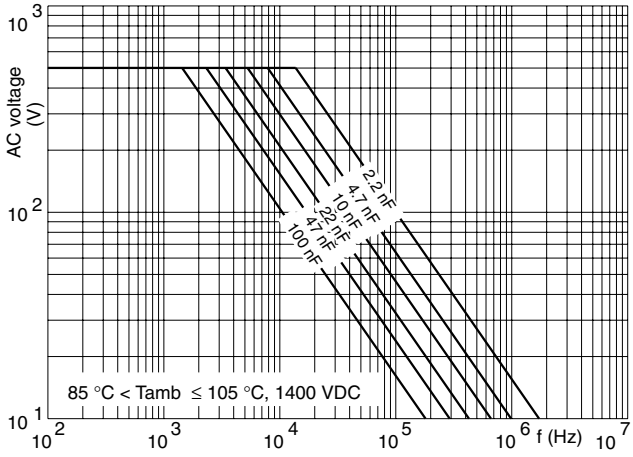


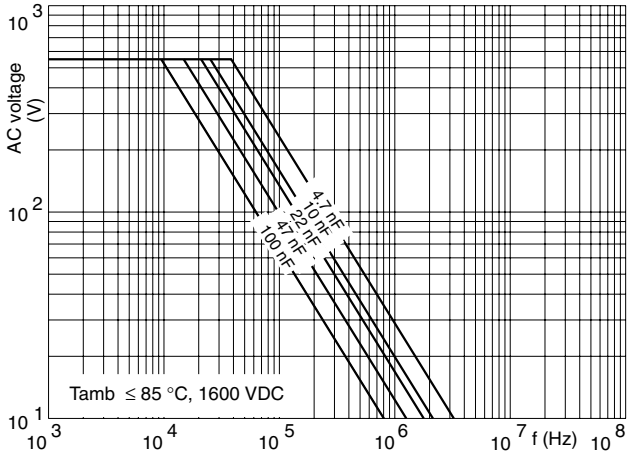


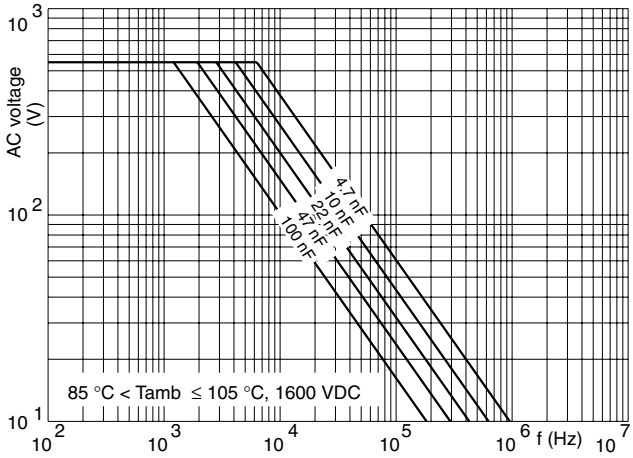

AC voltage (V)
f (Hz)
4.7 nF
10 nF
22 nF
47 nF
100 nF
220 nF
470 nF
Tamb ≤ 85 °C, 1000 VDC


AC voltage (V)
f (Hz)
4.7 nF
10 nF
22 nF
47 nF
100 nF
220 nF
470 nF
85 °C < Tamb ≤ 105 °C, 1000 VDC

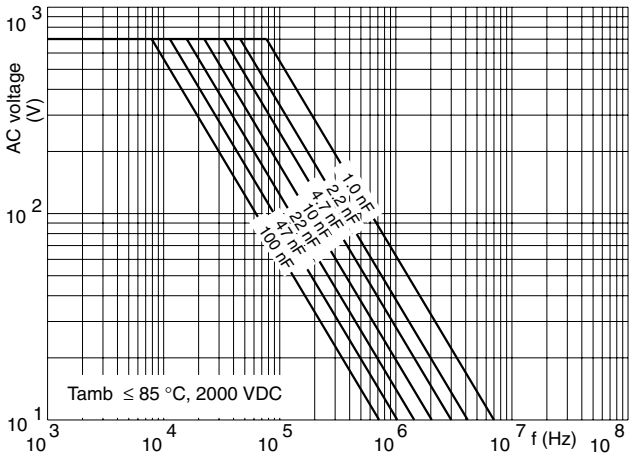

AC voltage (V)
f (Hz)
2.2 nF
4.7 nF
10 nF
22 nF
47 nF
100 nF
Tamb ≤ 85 °C, 1400 VDC

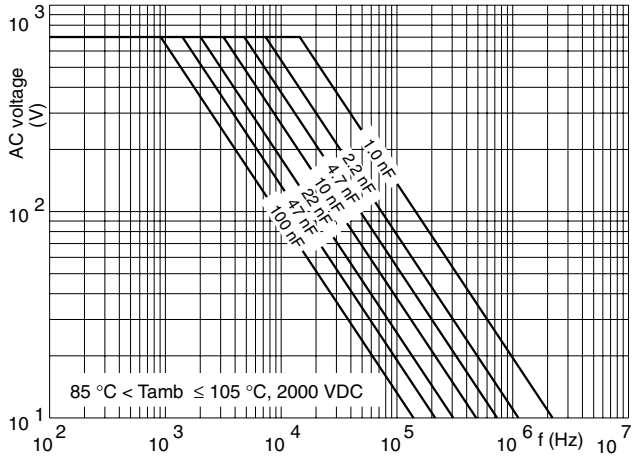

AC voltage (V)
f (Hz)
2.2 nF
4.7 nF
10 nF
22 nF
47 nF
100 nF
85 °C < Tamb ≤ 105 °C, 1400 VDC

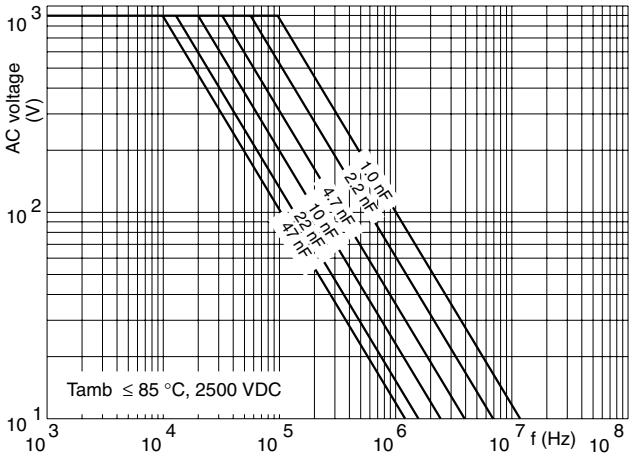

AC voltage (V)
f (Hz)
4.7 nF
10 nF
22 nF
47 nF
100 nF
Tamb ≤ 85 °C, 1600 VDC

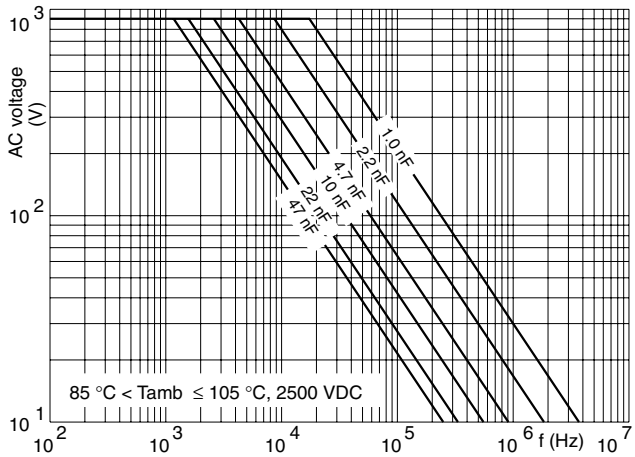

AC voltage (V)
f (Hz)
4.7 nF
10 nF
22 nF
47 nF
100 nF
85 °C < Tamb ≤ 105 °C, 1600 VDC

AC and Pulse Double Metallized
Polypropylene Film Capacitors
MMKP Radial Potted Type

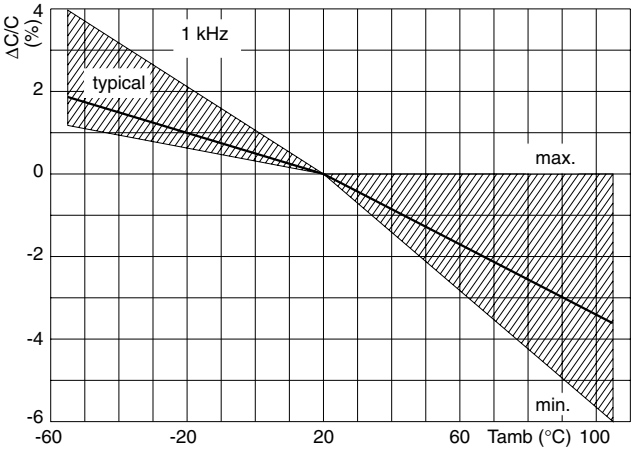




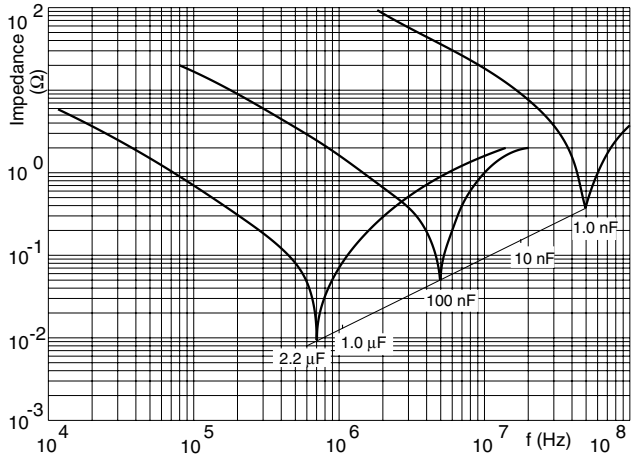




CAPACITANCE



IMPEDANCE



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