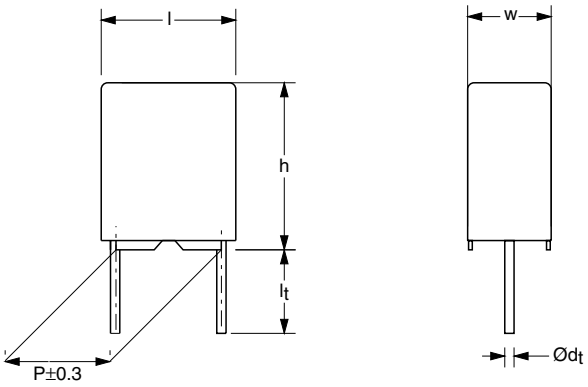
MKP 422

Vishay BCcomponents

Metallized Polypropylene Filter Film Capacitors
MKP Radial Potted Type
for Surge Voltage Applications



Dimensions in mm

APPLICATIONS

Low losses due to low contact resistance and low loss dielectric result in applications where high frequency occur or high stability is preferred. Their small dimensions make them suitable for circuits with high packaging density.

MARKING

C-value; rated voltage; tolerance; code for manufacturer; year and week of manufacture; manufacturers type designation

DIELECTRIC

Polypropylene film

ELECTRODES

Vacuum deposited aluminum

ENCAPSULATION

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

CONSTRUCTION

Wound mono construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES)

0.001 to 0.047 µF

FEATURES

7.5 and 10 mm lead pitch. Supplied loose in box and ammopack. Withstand surge voltages up to 1.5 kV.

Lead (Pb)-free product

RoHS-compliant product

Pb-free

e3

RoHS COMPLIANT

CAPACITANCE TOLERANCE

± 5 %; ± 2 %

RATED (DC) VOLTAGE

630 V

RATED (AC) VOLTAGE

160 V

RATED PEAK-TO-PEAK VOLTAGE

450 V

CLIMATIC CATEGORY

55/085/56

RATED TEMPERATURE (DC)

85 °C

RATED TEMPERATURE (AC)

85 °C

MAXIMUM APPLICATION TEMPERATURE

85 °C

REFERENCE SPECIFICATIONS

IEC 60384-16

PERFORMANCE GRADE

Grade 1 (long life)

STABILITY GRADE

Grade 1

DETAIL SPECIFICATION

For more detailed data and test requirements contact: filmcaps.roeselare@vishay.com

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COMPOSITION OF CATALOG NUMBER

TYPE AND PITCHES	
422	7.5 mm
	10.0 mm

MULTIPLIER (nF)	
0.01	2
0.1	3

CAPACITANCE (numerically)

Example:
103 = 100 x 1 = 100 nF

2222	422	XX	XX	X
BFC2*	422	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	630 V
422	Ammopack	H = 18.5 mm; P_0 = 12.7 mm	± 2 %	1
				ON REQUEST
422	Ammopack	H = 18.5 mm; P_0 = 12.7 mm	± 5 %	0
	Loose in box	lead length 4.0 +1.0/–0.5 mm	± 5 %	3
			± 2 %	4

SPECIFIC REFERENCE DATA

DESCRIPTION	VALUE	
Tangent of loss angle:	at 10 kHz	at 100 kHz
C ≤ 0.0047 µF	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$ at 630 V (DC)	50 V/µs	
R between leads at 500 V; 1 minute	> 100000 MΩ	
R between interconnected leads and case at 500 V; 1 minute	> 100000 MΩ	
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	

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U_{Rdc} = 630 V; U_{Rac} = 160 V; U_{p-p} = 450 V

C (E 24) (µF)	DIMENSIONS b × h × l (mm)	MASS (g)	CATALOGUE NUMBER AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		lt = 4.0 + 1.0/– 0.5 mm
			C-tol = ± 2 %		
			last 5 digits of catalog number	SPQ	SPQ
Pitch = 7.5 ± 0.4 mm; d_t = 0.50 ± 0.05 mm					
0.001	4.0 × 9.0 × 10.0	0.50	11002	1250	1500
0.0011			11102		
0.0012			11202		
0.0013			11302		
0.0015			11502		
0.0016			11602		
0.0018			11802		
0.002			12002		
0.0022			12202		
0.0024			12402		
0.0027			12702		
0.003	5.0 × 10.5 × 10.0	0.90	13002	1000	1000
0.0033			13302		
0.0036			13602		
0.0039			13902		
0.0043	6.0 × 11.5 × 10.0	1.0	14302	750	750
0.0047			14702		
Pitch = 10.0 ± 0.4 mm; d_t = 0.60 ± 0.06 mm					
0.0051	4.0 × 10.0 × 12.5	0.60	15102	750	1000
0.0056			15602		
0.0062			16202		
0.0068			16802		
0.0075			17502		
0.0082			18202		
0.01			11003		
0.011			11103		
0.012			11203		
0.013			11303		
0.015			11503		
0.016			11603		
0.018	5.0 × 11.0 × 12.5	0.85	11803	600	1000
0.02			12003		
0.022			12203		
0.024			12403		
0.027	6.0 × 12.0 × 12.5	1.10	12703	500	750
0.03			13003		
0.033			13303		
0.036			13603		
0.039			13903		
0.043			14303		
0.047			14703		

For technical questions contact: filmcaps.roeselare@vishay.com

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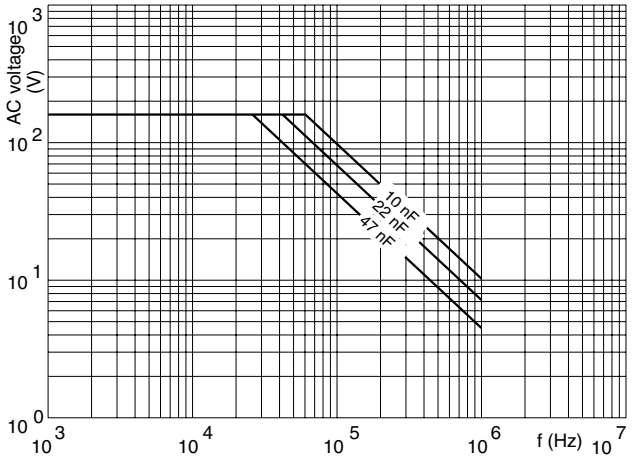
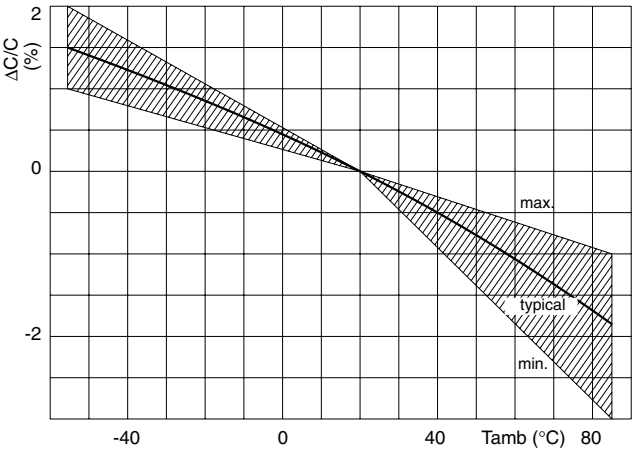
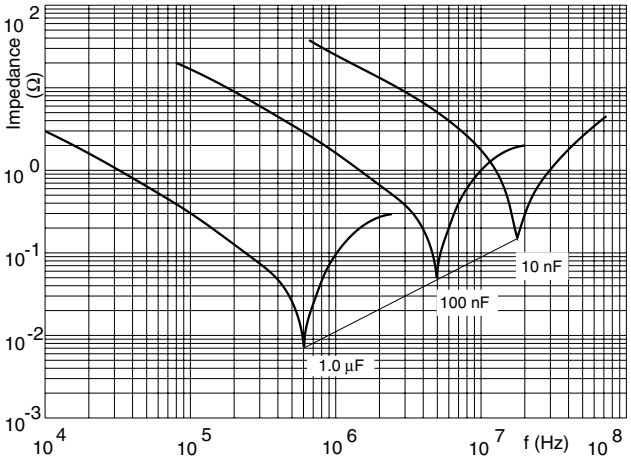
MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY



CAPACITANCE



IMPEDANCE



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