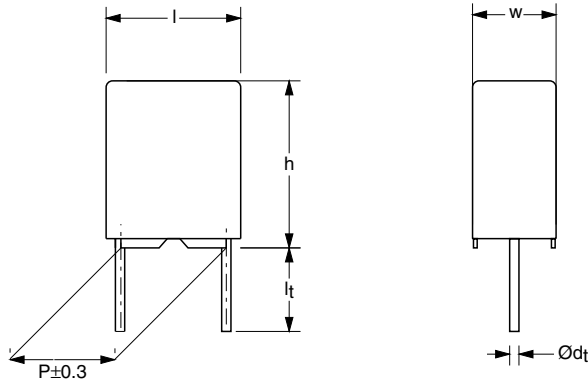


AC and Pulse Metallized Polypropylene Film Capacitors MKP Radial Potted Type



Dimensions in mm

APPLICATIONS

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

MARKING

C-value; tolerance; rated voltage; manufacturer's type designation; code for dielectric material; manufacturer's emblem; code for factory of origin; 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

Wound mono construction

LEADS

Tinned wire

CAPACITANCE RANGE (E24 SERIES)

0.0015 to 0.1 μ F

FEATURES

5 mm pitch. Supplied loose in box and ammopack

Lead (Pb)-free product

RoHS-compliant product



RoHS
COMPLIANT

CAPACITANCE TOLERANCE

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

RATED (DC) VOLTAGE

100 V; 160 V; 250 V; 400 V; 630 V

RATED (AC) VOLTAGE

63 V; 100 V; 160 V; 200 V; 200 V

RATED PEAK-TO-PEAK VOLTAGE

180 V; 280 V; 450 V; 560 V; 560 V

CLIMATIC CATEGORY

55/085/56

RATED TEMPERATURE

85 °C

MAXIMUM APPLICATION TEMPERATURE

85 °C

REFERENCE SPECIFICATIONS

IEC 60384-17

PERFORMANCE GRADE

Grade 1 (long life)

STABILITY GRADE

Grade 2

DETAIL SPECIFICATION

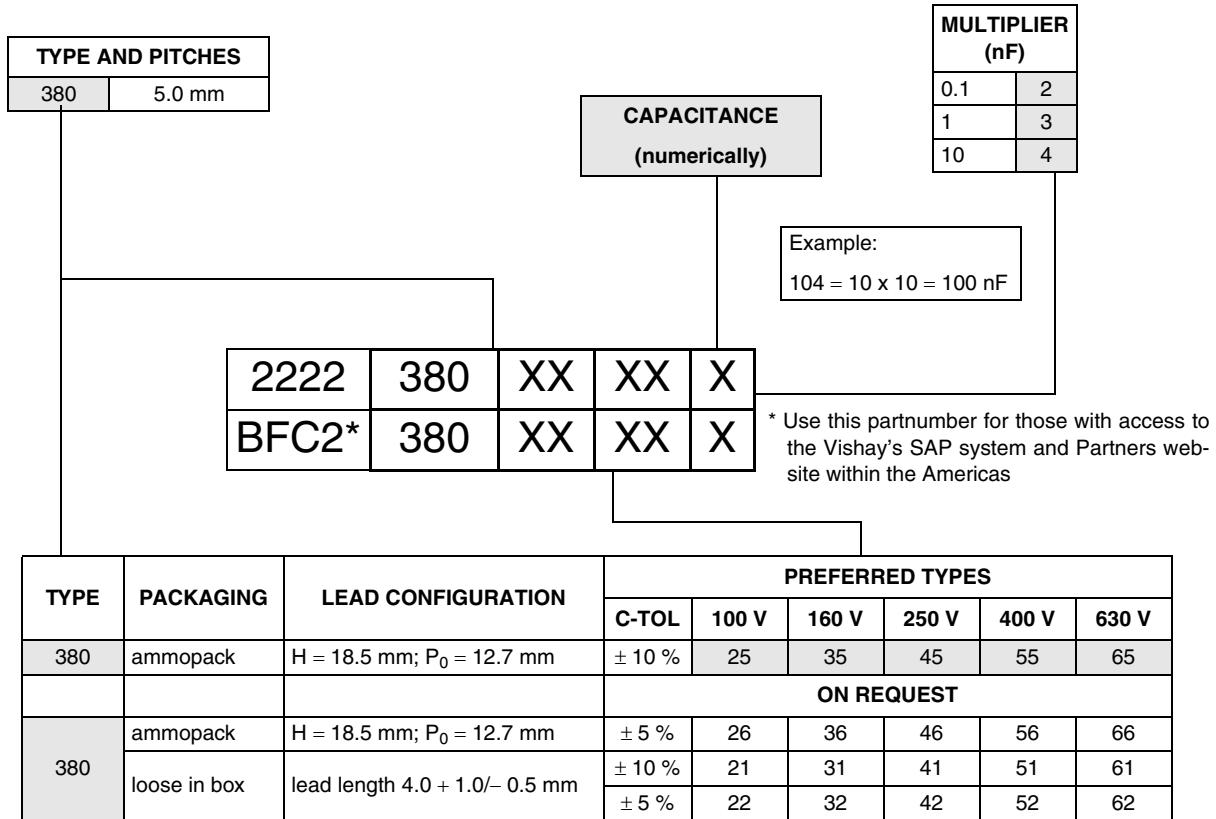
For more detailed data and test requirements see "Type detail specification HQN-384-17/103"

MKP 380

Vishay BCcomponents AC and Pulse Metallized Polypropylene
Film Capacitors MKP Radial Potted Type



COMPOSITION OF CATALOG NUMBER





SPECIFIC REFERENCE DATA (100 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle: 0.018 μF ≤ C ≤ 0.027 μF 0.027 μF < C ≤ 0.075 μF 0.075 μF < C ≤ 0.1 μF	at 10 kHz	at 100 kHz
	≤ 5 × 10 ⁻⁴	≤ 15 × 10 ⁻⁴
	≤ 5 × 10 ⁻⁴	≤ 20 × 10 ⁻⁴
Rated voltage pulse slope (dU/dt) _R at 100 V (DC)	80 V/μs	
R between leads for C ≤ 1.0 μF at 100 V; 1 minute	> 100000 MΩ	
R between interconnected leads and case; 100 V; 1 minute	> 100000 MΩ	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	160 V; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	

U_{Rdc} = 100 V; U_{Rac} = 63 V; U_{p-p} = 180 V

C (μF)	DIMENSIONS W × H × L (mm)	MASS (g)	CATALOG NUMBER 2222 380 AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		l _t = 4.0 + 1.0/- 0.5 mm
			C-tol = ± 10 %	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
Pitch = 5.0 ± 0.3 mm; d_t = 0.50 ± 0.05 mm					
0.018	3.5 × 8.0 × 7.2	0.35	25183	1500	2000
0.02			25203		
0.022			25223		
0.024			25243		
0.027			25273		
0.03			25303		
0.033			25333		
0.036	4.5 × 9.0 × 7.2	0.45	25363	1000	2000
0.039			25393		
0.043			25433		
0.047			25473		
0.051	6.0 × 11.0 × 7.2	0.60	25513	750	2000
0.056			25563		
0.062			25623		
0.068			25683		
0.075			25753		
0.082			25823		
0.091			25913		
0.1			25104		



SPECIFIC REFERENCE DATA (160 VDC)

DESCRIPTION	VALUE	
	at 10 kHz	at 100 kHz
Tangent of loss angle: 0.013 $\mu\text{F} \leq C \leq 0.027 \mu\text{F}$ 0.027 $\mu\text{F} < C \leq 0.068 \mu\text{F}$	$\leq 5 \times 10^{-4}$ $\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$ $\leq 20 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$ at 160 V (DC)	80 V/ μs	
R between leads for $C \leq 1.0 \mu\text{F}$ at 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
R between interconnected leads and case; 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
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	

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

C (μF)	DIMENSIONS W x H x L (mm)	MASS (g)	CATALOG NUMBER 2222 380 AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		$l_t = 4.0 + 1.0/-0.5 \text{ mm}$
			C-tol = $\pm 10 \%$	SPQ	SPQ
			LAST 5 DIGITS OF CATALOG NUMBER		
Pitch = $5.0 \pm 0.3 \text{ mm}$; $d_t = 0.50 \pm 0.05 \text{ mm}$					
0.013 0.015 0.016 0.018 0.02 0.022	3.5 x 8.0 x 7.2	0.35	35133 35153 35163 35183 35203 35223	1500	2000
0.024 0.027 0.03 0.033	4.5 x 9.0 x 7.2	0.45	35243 35273 35303 35333	1000	2000
0.036 0.039 0.043 0.047 0.051 0.056 0.062 0.068	6.0 x 11.0 x 7.2	0.60	35363 35393 35433 35473 35513 35563 35623 35683	750	2000



SPECIFIC REFERENCE DATA (250 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle: 0.0091 $\mu\text{F} \leq C \leq 0.027 \mu\text{F}$ 0.027 $\mu\text{F} < C \leq 0.043 \mu\text{F}$	at 10 kHz	at 100 kHz
	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$ at 250 V (DC)	90 V/ μs	
R between leads for $C \leq 1.0 \mu\text{F}$ at 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
R between interconnected leads and case; 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
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	

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

C (μF)	DIMENSIONS W x H x L (mm)	MASS (g)	CATALOG NUMBER 2222 380 AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		$l_t = 4.0 + 1.0/- 0.5 \text{ mm}$
			C-tol = $\pm 10 \%$	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
Pitch = $5.0 \pm 0.3 \text{ mm}$; $d_t = 0.50 \pm 0.05 \text{ mm}$					
0.0091 0.01 0.011 0.012 0.013 0.015	3.5 x 8.0 x 7.2	0.35	45912 45103 45113 45123 45133 45153	1500	2000
0.016 0.018 0.02 0.022 0.024	4.5 x 9.0 x 7.2	0.45	45163 45183 45203 45223 45243	1000	2000
0.027 0.03 0.033 0.036 0.039 0.043	6.0 x 11.0 x 7.2	0.60	45273 45303 45333 45363 45393 45433	750	2000



SPECIFIC REFERENCE DATA (400 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle: 0.0043 $\mu\text{F} \leq C \leq 0.0091 \mu\text{F}$ 0.0091 $\mu\text{F} < C \leq 0.02 \mu\text{F}$	at 10 kHz	at 100 kHz
	$\leq 5 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$ at 400 V (DC)	100 V/ μs	
R between leads for $C \leq 1.0 \mu\text{F}$ at 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
R between interconnected leads and case; 100 V; 1 minute	$> 100000 \text{ M}\Omega$	
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	

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

C (μF)	DIMENSIONS W x H x L (mm)	MASS (g)	CATALOG NUMBER 2222 380 AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		$l_t = 4.0 + 1.0/-0.5 \text{ mm}$
			C-tol = $\pm 10 \%$	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
Pitch = $5.0 \pm 0.3 \text{ mm}$; $d_t = 0.50 \pm 0.05 \text{ mm}$					
0.0043 0.0047 0.0051 0.0056 0.0062 0.0068 0.0075 0.0082	3.5 x 8.0 x 7.2	0.35	55432 55472 55512 55562 55622 55682 55752 55822	1500	2000
0.0091 0.01 0.011 0.012	4.5 x 9.0 x 7.2	0.45	55912 55103 55113 55123	1000	2000
0.013 0.015 0.016 0.018 0.02	6.0 x 11.0 x 7.2	0.60	55133 55153 55163 55183 55203	750	2000



SPECIFIC REFERENCE DATA (630 VDC)

DESCRIPTION	VALUE	
Tangent of loss angle: 0.0015 $\mu\text{F} \leq C \leq 0.0091 \mu\text{F}$ 0.0091 $\mu\text{F} < C \leq 0.01 \mu\text{F}$	at 10 kHz	at 100 kHz
	$\leq 5 \times 10^{-4}$	$\leq 10 \times 10^{-4}$
	$\leq 5 \times 10^{-4}$	$\leq 15 \times 10^{-4}$
Rated voltage pulse slope $(dU/dt)_R$ at 630 V (DC)	120 V/ μs	
R between leads for $C \leq 1.0 \mu\text{F}$ at 500 V; 1 minute	$> 100000 \text{ M}\Omega$	
R between interconnected leads and case; 500 V; 1 minute	$> 100000 \text{ M}\Omega$	
Withstanding (DC) voltage (cut off current 10 mA); rise time 100 V/s	880 V; 1 minute	
Withstanding (DC)voltage between leads and case	2840 V; 1 minute	

$U_{Rdc} = 630 \text{ V}$; $U_{Rac} = 200 \text{ V}$; $U_{p-p} = 560 \text{ V}$

C (μF)	DIMENSIONS W x H x L (mm)	MASS (g)	CATALOG NUMBER 2222 380 AND PACKAGING		
			AMMOPACK		LOOSE IN BOX
			H = 18.5 mm		$l_t = 4.0 + 1.0/- 0.5 \text{ mm}$
			C-tol = $\pm 10 \%$	SPQ	SPQ
LAST 5 DIGITS OF CATALOG NUMBER					
Pitch = $5.0 \pm 0.3 \text{ mm}$; $d_t = 0.50 \pm 0.05 \text{ mm}$					
0.0015 0.0016 0.0018 0.002 0.0022 0.0024 0.0027 0.003 0.0033 0.0036 0.0039	3.5 x 8.0 x 7.2	0.35	65152 65162 65182 65202 65222 65242 65272 65302 65332 65362 65392	1500	2000
0.0043 0.0047 0.0051 0.0056	4.5 x 9.0 x 7.2	0.45	65432 65472 65512 65562	1000	2000
0.0062 0.0068 0.0075 0.0082 0.0091 0.01	6.0 x 11.0 x 7.2	0.60	65622 65682 65752 65822 65912 65103	750	2000



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