

Metallized Film Capacitor

Interference Suppression Capacitors

Series/Type: X1-MPX/MKP

Ordering code: CX1*

Date: September 2024

Version: 01

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■ Features

- Metallized polypropylene structure
- Withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities
- Used in across-the-line, interference suppression circuit
(Not for use in series with the mains)

■ Reference Standards

- IEC60384-14
- AEC Q-200
- RoHS
- UL 810

■ Safety Approvals

●		CQC (CHINA)	IEC 60384-14:2023, X1,275V/280V/300V/310V/330V/440V, 0.0022 μ F~4.7 μ F,40/110/56B Certificate No.:CQC21001303536
●		ENEC-VDE (EUROPEAN UNION)	IEC 60384-14:2013+AI:2016, X1,275V/280V/300V/310V/330V/440V, 0.0022 μ F~4.7 μ F,40/110/56B Certificate No.:40052899
●		UL/CUL (USA/CANADA)	IEC 60384-14:2013+AI:2016, X1,275V/280V/300V/310V/330V/440V, 0.0022 μ F~4.7 μ F,40/110/56B File No.:E315567

■ Specifications

- Capacitance range **0.0022 μ F...4.7 μ F**
- Capacitance tolerance **$\pm 10\%$ (K), $\pm 20\%$ (M)**
- Rated RMS Voltage **275V.ac/280V.ac/300V.ac/310V.ac/330V.ac/440V.ac**
- Dielectric dissipation factor($\tan \delta_0$) **2×10^{-4}**
- Loss factor($\tan \delta$)at 1KHz **$\leq 3.0 \times 10^{-3}$**
- Operating temperature range **-40 $^{\circ}$ C...110 $^{\circ}$ C**
- Storage temperature Range **-40 $^{\circ}$ C...110 $^{\circ}$ C**

■ Test data

- Capacitance measurement **$C_R \pm 10\%$ (K); $C_R \pm 20\%$ (M)**
- Test voltage between terminals **4.3U_R @2S**
- Test voltage between terminals to case **1500+2U_R V.ac @60S**
- Insulation resistance **R $\geq 15,000M \Omega$, $C_R \leq 0.33\mu F(20^{\circ}C, 100V, 60S)$
R $\cdot C_R \geq 5,000S$, $C_R > 0.33\mu F(20^{\circ}C, 100V, 60S)$**
- Loss factor($\tan \delta$)at 1KHz **30×10^{-4}**

■ **Structure of ordering code**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	X	1	3	3	1	1	0	4	K	6	3	5	L	0	1	G	1
A			B			C			D	E	F		G	H	I	J	K

- A: Capacitor series
CX1=X1-MPX/MKP
- B: Rated voltage
如: 331=33*10¹=330V
- C: Rated capacitance
如: 104=10*10⁴=100000pF=0.1μF
- D: Capacitance tolerance
K=±10%, M=±20%
- E: Pitch
2=5.0mm 3=7.5mm 4=10mm 5=12.5mm 6=15mm 9=22.5mm
B=27.5mm D=32.5mm F=37.5mm M=52.5mm
- F: Lead length
35=3.5mm E5=15mm N2=22mm S6=36mm
- G: Pin shape
L=Straight foot R=Right foot K=K foot N=Bend inward foot
W=Bend outside foot
- H: Product features
0=Ordinary 1=Double 85 2=Low noise 3=Low power
- I: Raw material
0=No halogen 1=halogen
- J: Product colour
Y=Yellow G=Grey B=Black U=Blue W=white R=Red E=Green
- H: Inner use

■ **Outline Drawing(Specific according to customer requirements)**

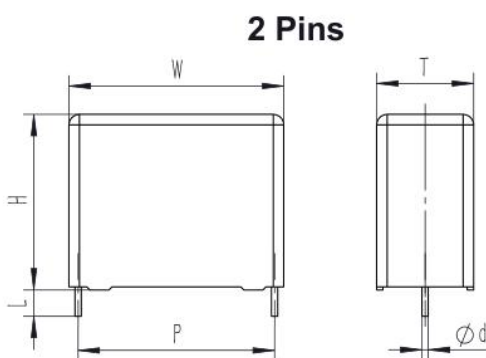


Fig 1

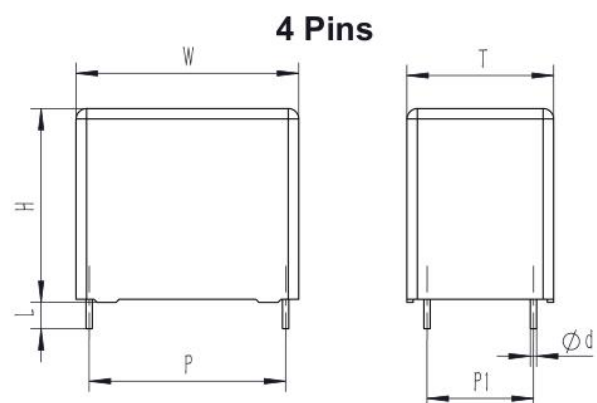


Fig 2

Metallized Film Capacitor	CX1*
Interference Suppression Capacitors	X1-MPX/MKP

Dimensions(mm)

UR: 275V.ac / 280V.ac / 300V.ac / 310V.ac / 330V.ac							UR: 275V.ac / 280V.ac / 300V.ac / 310V.ac / 330V.ac						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.0022	13	10	5	0.6	10		0.22	26	12	6	0.8	22.5	
0.0033	13	10	5	0.6	10		0.22	26	14.5	6	0.8	22.5	
0.0047	13	10	5	0.6	10		0.22	26.5	16.5	7	0.8	22.5	
0.0068	13	10	5	0.6	10		0.22	26.5	17	8.5	0.8	22.5	
0.010	13	10	5	0.6	10		0.33	18	16	10	0.8	15	
0.010	13	9	4	0.6	10		0.33	18	19	10.8	0.8	15	
0.010	18	11	5	0.8	15		0.33	26	16.5	7.5	0.8	22.5	
0.022	13	9	4	0.6	10		0.33	26	17	8.5	0.8	22.5	
0.022	13	11	5	0.6	10		0.33	26.5	17	8.5	0.8	22.5	
0.022	18	11	5	0.8	15		0.33	26.5	19	10	0.8	22.5	
0.022	20	14	7	0.8	15		0.47	18	19	11	0.8	15	
0.033	13	11	5	0.6	10		0.47	26	17	8.5	0.8	22.5	
0.033	13	13	7	0.6	10		0.47	26	19	10	0.8	22.5	
0.033	18	11	5	0.8	15		0.47	26	21.5	12	0.8	22.5	
0.033	20	14	7	0.8	15		0.47	26.5	19	10	0.8	22.5	
0.047	13	13	7	0.6	10		0.47	30	21	11.8	0.8	27.5	
0.047	18	11	5	0.8	15		0.47	31	18	9	0.8	27.5	
0.047	20	14	7	0.8	15		0.68	26	19	10	0.8	22.5	
0.068	13	13	7	0.6	10		0.68	26	21.5	12	0.8	22.5	
0.068	13	10	5	0.6	10		0.68	31	18	9	0.8	27.5	
0.068	18	11	5	0.8	15		0.68	31	20	10	0.8	27.5	
0.068	20	14	7	0.8	15		0.68	31.5	21.6	13	0.8	27.5	
0.10	13	16	8	0.6	10		1.0	26	23	14	0.8	22.5	
0.10	18	12	6	0.8	15		1.0	26	25	15	0.8	22.5	
0.10	18	13	6.3	0.8	15		1.0	31	20	11	0.8	27.5	
0.10	26	11	5	0.8	22.5		1.0	32	22	13	0.8	27.5	
0.10	26	14.5	6	0.8	22.5		1.2	26	23	14	0.8	15	
0.10	26	16.5	7	0.8	22.5		1.2	26	25	15	0.8	22.5	
0.15	18	13.5	7.5	0.8	15		1.2	31	18	9	0.8	27.5	
0.15	18	14.5	8.5	0.8	22.5		1.2	32	22	13	0.8	27.5	
0.15	26	11	5	0.8	22.5		1.5	26	25	15	0.8	22.5	
0.15	26	14.5	6	0.8	22.5		1.5	31	23.5	14	0.8	27.5	
0.15	26.5	17	10	0.8	22.5		1.5	31	25	14	0.8	27.5	
0.22	18	14.5	8.5	0.8	15		2.2	31	26	18	0.8	27.5	
0.22	18	15.5	9.6	0.8	15		2.2	31.5	28	17	0.8	27.5	

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Dimensions(mm)

U _R : 275V.ac / 280V.ac / 300V.ac / 310V.ac / 330V.ac							U _R : 275V.ac / 280V.ac / 300V.ac / 310V.ac / 330V.ac						
C _R (μF)	W	H	T	d	P	Part number	C _R (μF)	W	H	T	d	P	Part number
2.2	41.5	26	14.5	1.0	37.5		3.3	41	30	17	1.0	37.5	
2.2	41	30	17	1.0	37.5		3.3	41.5	31.5	18.5	1.0	37.5	
3.3	31.5	31	22	0.8	27.5		4.7	41.5	31.5	18.5	1.0	37.5	
3.3	31	32.5	19	0.8	27.5		4.7	41.5	35.5	22.5	1.0	37.5	

Metallized Film Capacitor	CX1*
Interference Suppression Capacitors	X1-MPX/MKP

Dimensions(mm)

UR: 440V.ac							UR: 440V.ac						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.0022	13	10	5	0.6	10		0.15	26	14.5	6	0.8	22.5	
0.0033	13	10	5	0.6	10		0.22	18	16	10	0.8	15	
0.0047	13	10	5	0.6	10		0.22	26.5	16.5	7	0.8	22.5	
0.0068	13	10	5	0.6	10		0.22	31	18	9	0.8	27.5	
0.010	13	10	5	0.6	10		0.33	26	20	11	0.8	22.5	
0.010	13	9	4	0.6	10		0.33	31	18	9	0.8	27.5	
0.010	18	11	5	0.8	15		0.47	26	21.5	12	0.8	22.5	
0.022	13	9	4	0.6	10		0.47	31	20	11	0.8	27.5	
0.022	13	11	5	0.6	10		0.68	26	25	15	0.8	22.5	
0.022	18	11	5	0.8	15		0.68	32	22	13	0.8	27.5	
0.022	20	14	7	0.8	15		0.68	41.5	26	14.5	1.0	37.5	
0.033	13	12	6	0.6	10		1.0	32	26	18	0.8	27.5	
0.033	18	11	5	0.8	15		1.0	41.5	26	14.5	1.0	37.5	
0.047	13	13	7	0.6	10		1.2	32	26	18	0.8	27.5	
0.047	18	12	6	0.8	15		1.2	41.5	26	14.5	1.0	37.5	
0.068	18	13.5	7.5	0.8	15		1.5	41.5	30	17	1.0	37.5	
0.068	26	11	5	0.8	22.5		2.2	31	34.5	21	0.8	27.5	
0.10	18	14.5	8.5	0.8	15		2.2	41.5	31.5	18.5	1.0	37.5	
0.10	26	14.5	6	0.8	22.5		3.3	41.5	41	27.5	1.0	37.5	
0.15	18	14.5	8.5	0.8	15		4.7	41.5	48	33	1.0	37.5	