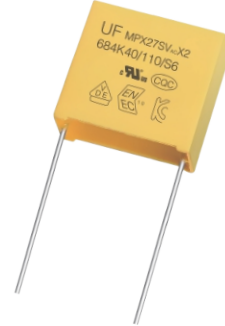


X2 Metallized Polypropylene Film Capacitor

Interference Suppression Capacitors (Class X2 275VAC 305VAC 310VAC)

FEATURES

- Non-inductive, (UL940V-0) plastic case sealed with epoxy resin.
- Provides interference suppression with VDE, ENEC and UL approvals.
- Meet RoHS, Reach; and Halogen free requirement is available on request



SPECIFICATIONS

Operating Temperature	-40°C ~ +110°C
Voltage Rating	275VAC, 305VAC, 310VAC
Capacitance Range	0.001 ~ 2.2μF
Capacitance Tolerance	±10% standard,
Package	Standard Package Bulk, Ammo Taped Package available on request
Insulation Resistance	$C_R \leq 0.33 \mu F, I.R \geq 15,000 M\Omega$ $C_R > 0.33 \mu F, I.R \geq 6,000 S (M\Omega/\mu F)$
Dissipation Factor	$tg\delta \leq 0.0010$ 1KHz
Testing Voltage	4.3U _R DC /5s
Lead Length	Standard 20.0+/-1mm, long leads and cut leads on request.

SAFETY APPROVALS

Country	Safety Organization	Standard No.	Capacitance Range	Rated Voltage
USA Canada	UL/CUL	UL60384	0.001uF-2.2uF	250VAC 275VAC 305VAC 310VAC
Germany	VDE	EN60384-14	0.001uF-2.2uF	275VAC 305VAC 310VAC
EU	ENEC	EN60384-14	0.001uF-2.2uF	
Korea	KTL	K60384	<0.1uF	
			0.1uF-0.33uF	
			0.33uF-1uF	
			1uF-2.2uF	
China	CQC	GB/T14472	0.001uF-2.2uF	275VAC
IEC	IEC-CB	IEC60384-14	0.001uF-2.2uF	275VAC

Interference Suppression Capacitors Dimensions Table

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.001	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.0022	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.0033	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.0039	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.0047	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.01	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.022	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.033	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6

Interference Suppression Capacitors Dimensions Table

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.047	275VAC	13.0	11.0	5.0	10.0	0.6
	305VAC	13.0	11.0	5.0	10.0	0.6
	310VAC	13.0	11.0	5.0	10.0	0.6
0.068	275VAC	13.0	12.0	6.0	10.0	0.6
	305VAC	13.0	12.0	6.0	10.0	0.6
	310VAC	13.0	12.0	6.0	10.0	0.6
0.082	275VAC	13.0	12.0	6.0	10.0	0.6
	305VAC	13.0	12.0	6.0	10.0	0.6
	310VAC	13.0	12.0	6.0	10.0	0.6
0.1	275VAC	13.0	12.0	6.0	10.0	0.6
	305VAC	13.0	12.0	6.0	10.0	0.6
	310VAC	13.0	12.0	6.0	10.0	0.6
0.15	275VAC	13.0	12.0	6.0	10.0	0.6
0.22	275VAC	13.0	15.0	8.0	10.0	0.6
0.033	275VAC	18.0	11.0	5.0	15.0	0.8
	305VAC	18.0	11.0	5.0	15.0	0.8
	310VAC	18.0	11.0	5.0	15.0	0.8
0.047	275VAC	18.0	11.0	5.0	15.0	0.8
	305VAC	18.0	11.0	5.0	15.0	0.8
	310VAC	18.0	11.0	5.0	15.0	0.8
0.068	275VAC	18.0	11.0	5.0	15.0	0.8
	305VAC	18.0	11.0	5.0	15.0	0.8
	310VAC	18.0	11.0	5.0	15.0	0.8
0.082	275VAC	18.0	12.0	6.0	15.0	0.8
	305VAC	18.0	12.0	6.0	15.0	0.8
	310VAC	18.0	12.0	6.0	15.0	0.8
0.1	275VAC	18.0	12.0	6.0	15.0	0.8
	305VAC	18.0	12.0	6.0	15.0	0.8
	310VAC	18.0	12.0	6.0	15.0	0.8
0.15	275VAC	18.0	12.0	6.0	15.0	0.8
	305VAC	18.0	12.0	6.0	15.0	0.8
	310VAC	18.0	12.0	6.0	15.0	0.8
0.22	275VAC	18.0	14.5	8.5	15.0	0.8
	305VAC	18.0	14.5	8.5	15.0	0.8
	310VAC	18.0	14.5	8.5	15.0	0.8

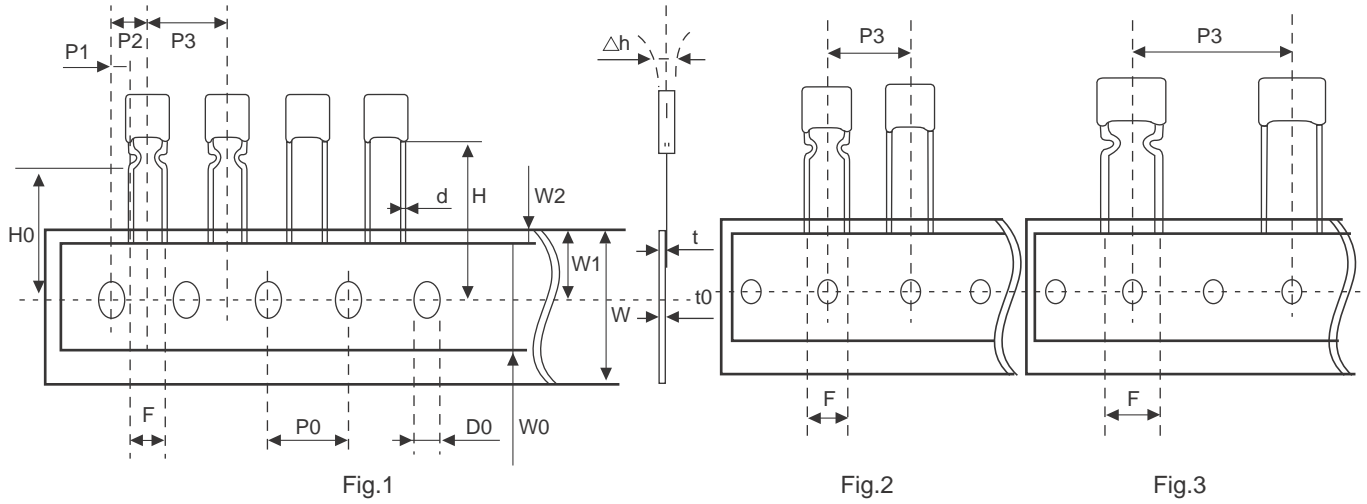
Interference Suppression Capacitors Dimensions Table

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.33	275VAC	18.0	14.5	8.5	15.0	0.8
	305VAC	18.0	16.0	10.0	15.0	0.8
	310VAC	18.0	16.0	10.0	15.0	0.8
0.47	275VAC	18.0	16.0	10.0	15.0	0.8
	305VAC	18.0	16.0	10.0	15.0	0.8
	310VAC	18.0	16.0	10.0	15.0	0.8
0.56	275VAC	18.0	16.0	10.0	15.0	0.8
	305VAC	18.0	16.0	10.0	15.0	0.8
	310VAC	18.0	16.0	10.0	15.0	0.8
0.68	275VAC	18.0	19.0	11.0	15.0	0.8
	305VAC	18.0	19.0	11.0	15.0	0.8
	310VAC	18.0	19.0	11.0	15.0	0.8
0.22	275VAC	26.5	16.5	7.0	22.5	0.8
	305VAC	26.5	16.5	7.0	22.5	0.8
	310VAC	26.5	16.5	7.0	22.5	0.8
0.27	275VAC	26.5	16.5	7.0	22.5	0.8
	305VAC	26.5	16.5	7.0	22.5	0.8
	310VAC	26.5	16.5	7.0	22.5	0.8
0.33	275VAC	26.5	17.0	8.5	22.5	0.8
	305VAC	26.5	17.0	8.5	22.5	0.8
	310VAC	26.5	17.0	8.5	22.5	0.8
0.47	275VAC	26.5	19.0	10.0	22.5	0.8
	305VAC	26.5	19.0	10.0	22.5	0.8
	310VAC	26.5	19.0	10.0	22.5	0.8
0.56	275VAC	26.5	19.0	10.0	22.5	0.8
	305VAC	26.5	19.0	10.0	22.5	0.8
	310VAC	26.5	19.0	10.0	22.5	0.8
0.68	275VAC	26.5	17.0	8.5	22.5	0.8
	305VAC	26.5	17.0	8.5	22.5	0.8
	310VAC	26.5	17.0	8.5	22.5	0.8
0.82	275VAC	26.5	19.0	10.0	22.5	0.8
	305VAC	26.5	19.0	10.0	22.5	0.8
	310VAC	26.5	19.0	10.0	22.5	0.8
1.0	275VAC	26.5	17.0	8.5	22.5	0.8
	305VAC	26.5	20.0	11.0	22.5	0.8
	310VAC	26.5	20.0	11.0	22.5	0.8

Interference Suppression Capacitors Dimensions Table

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
1.2	275VAC	26.5	19.0	10.0	22.5	0.8
	305VAC	26.5	22.0	12.5	22.5	0.8
	310VAC	26.5	22.0	12.5	22.5	0.8
1.5	275VAC	26.5	20.0	11.0	22.5	0.8
	305VAC	26.5	22.0	12.5	22.5	0.8
	310VAC	26.5	22.0	12.5	22.5	0.8
0.68	275VAC	32.0	20.0	11.0	27.5	0.8
	305VAC	32.0	20.0	11.0	27.5	0.8
	310VAC	32.0	20.0	11.0	27.5	0.8
0.82	275VAC	32.0	20.0	11.0	27.5	0.8
	305VAC	32.0	20.0	11.0	27.5	0.8
	310VAC	32.0	20.0	11.0	27.5	0.8
1.0	275VAC	32.0	20.0	11.0	27.5	0.8
	305VAC	32.0	20.0	11.0	27.5	0.8
	310VAC	32.0	20.0	11.0	27.5	0.8
1.2	275VAC	32.0	20.0	11.0	27.5	0.8
	305VAC	32.0	20.0	11.0	27.5	0.8
	310VAC	32.0	20.0	11.0	27.5	0.8
1.5	275VAC	32.0	22.0	13.0	27.5	0.8
	305VAC	32.0	22.0	13.0	27.5	0.8
	310VAC	32.0	22.0	13.0	27.5	0.8
2.0	275VAC	32.0	22.0	13.0	27.5	0.8
	305VAC	32.0	25.0	14.0	27.5	0.8
	310VAC	32.0	25.0	14.0	27.5	0.8
2.2	275VAC	32.0	22.0	13.0	27.5	0.8
	305VAC	32.0	25.0	14.0	27.5	0.8
	310VAC	32.0	25.0	14.0	27.5	0.8

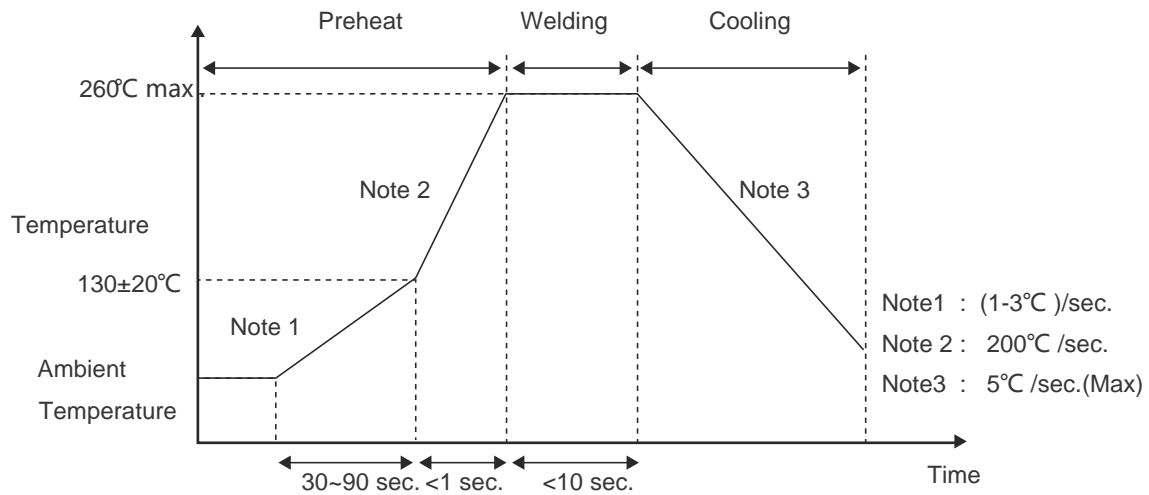
Taping And Dimensions (mm)



Symbol	Fig.1	Fig.2	Fig.2	Fig.3	Fig.3	Tolerance
	P=5.0	P=7.5	P=10	P=15	P=20/22.5	
P3	12.7	12.7	12.7	25.4	30.0	±1.0
P2	6.35	/	/	/	/	±1.3
P0	12.7	12.7	12.7	12.7	15.0	±0.3
P1	3.85	/	/	/	/	±0.7
F	5.0	7.5	10.0	15.0	20.0/22.5	±1.0
H	20.0	20.0	20.0	20.0	20.0	±1.0
H0	16.5	16.5	16.5	16.5	16.5	±0.5
Δ h	0	0	0	0	0	±2.0
W	18.0	18.0	18.0	18.0	18.0	+1.0/-0.5
W0	12.0	12.0	12.0	12.0	12.0	±1.0
W1	9.0	9.0	9.0	9.0	9.0	±0.5
W2	3.0	3.0	3.0	3.0	3.0	Max
D0	4.0	4.0	4.0	4.0	4.0	±0.3
d	0.5	0.6	0.6	0.8	0.8	±0.05
t	1.0	1.1	1.1	1.4	1.4	±0.2
t0	0.38	0.38	0.38	0.47	0.47	±0.04

Soldering Condition

Wave Soldering Graph



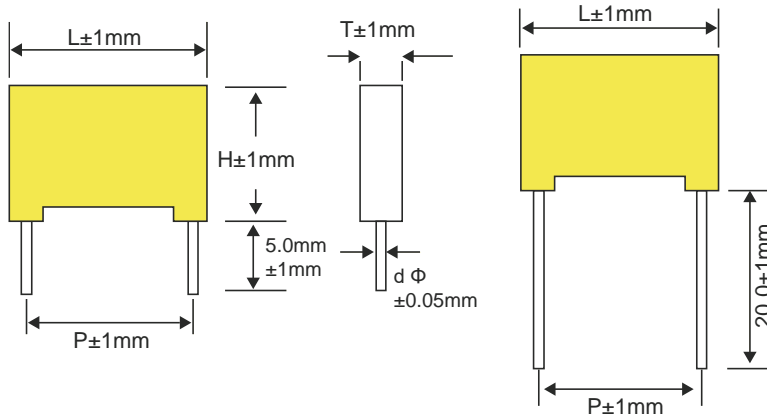
Note: Film capacitor is not suitable for reflow soldering welding, because it will cause thermal contraction and affect electrical performance.

Iron Soldering Condition

Item	Condition
Temperature of soldering copper bit	360°C (max.)
Soldering duration	3sec (max.)
Space between soldering position and coating layer	2mm (min.)

Interference Suppression Capacitors (Class X2, 275VAC, 305VAC, 310VAC)

DRAWING:



Standard Lead Length: 20.0mm±1mm
Cut Leads or Long Leads Available on Request

How to order:

<u>X2</u>	<u>F</u>	<u>104</u>	<u>K</u>	<u>A275</u>	<u>0150</u>	<u>B</u>	<u>000</u>
<u>Type</u>	<u>Material Code</u>	<u>Capacitance Code</u>	<u>Tolerance</u>	<u>Rated Voltage</u>	<u>Size Code</u>	<u>Package Code</u>	<u>Suffix Indicate Special Requirement</u>
X2	F: Plastic Film Cap For X2	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 104 = 0.1uF 103 = 0.01uF	K: +/-10%	For AC Voltage: A275: 275VAC A300: 300VAC A305: 305VAC A310: 310VAC	Pitch Size for Standard Box 0100: pitch size 10mm 0150: pitch size 15mm 0200: pitch size 20mm 0225: pitch size 22.5mm 0275: pitch size 27.5mm	B: Bulk A: Ammo Taped	000: Indicating Standard If for cut leads or long leg 000: mean standard LL 035: cut leads to 3.5mm 040: cut leads to 4mm 250: 25mm long leads
					For smaller box size, different size code S150: pitch 15mm, but in smaller box size Pls refer to "size code" from dimensions table		