

# MPX/X2-THB 85°C/85%RH Metallized Polypropylene Film Interference Suppression Capacitors (Class X2) Data Sheet







## Feature

- Wide capacitance range from 0.01uF to 4.7uF.
- Operating Temperature: -40°C ~ 110°C
- Storage Temperature: 15°C ~ 35°C
- Metallized polypropylene film.
- Good self-healing properties, withstanding over-voltage stressing.
- Long stability of capacitance
- Excellent active and passive flame resistant abilities (UL94V-0), good properties in damp environment.

## Applications

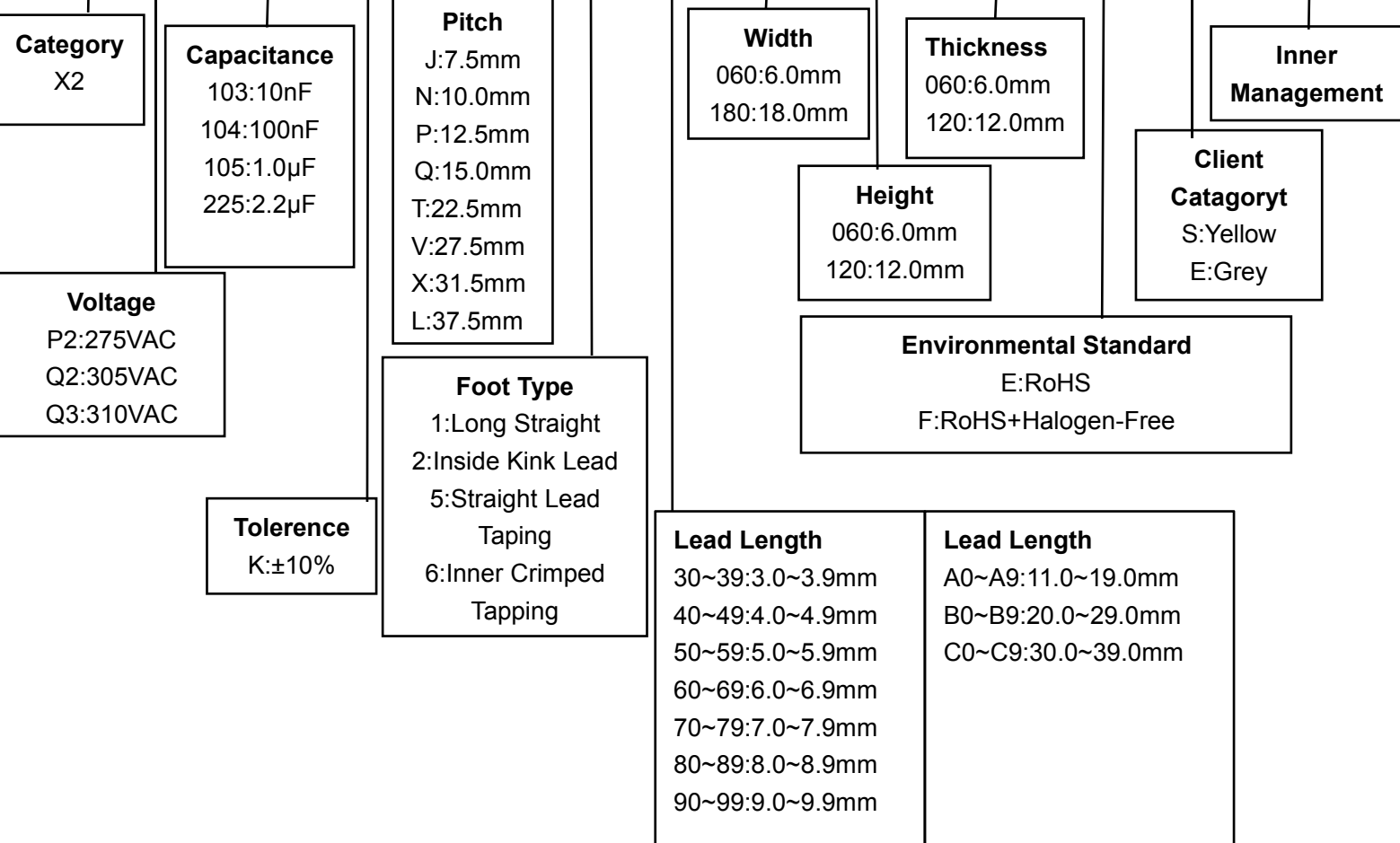
- Widely used in energy meter, LED driver ect.

## Applicable Standard

Approval		Organization	Safety Standards	Certificate No.
USA Canada		UL/CUL	UL60384	E208107
Germany		VDE	EN60384-14	40034679
EU		ENEC	EN60384-14	40034679
Korea		KTL	K60384	SU03031-12001
				SU03031-12002
				SU03031-12003
				SU03031-12004
China		CQC	GB/T 6346.14-2015	CQC08001024360
IEC		IEC-CB	IEC60384-14	CN11932

## Part Number Code

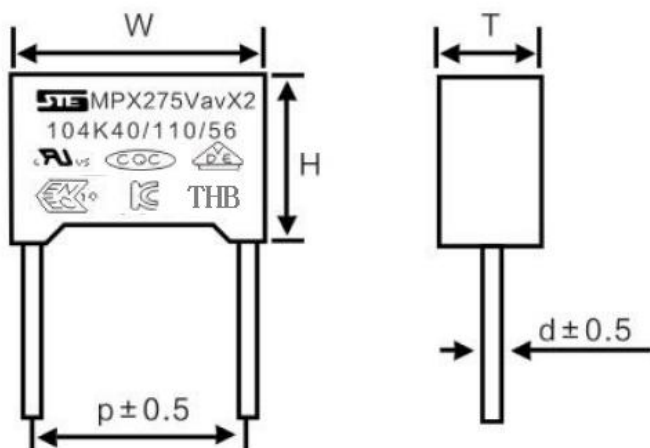
X2	P2	104	K	Q	1	B0	180	120	060	E	S	8
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## Specifications

<b>Climatic Category</b>	40/110/56
<b>Rated Voltage</b>	275VAC、305VAC、310VAC
<b>Dissipation Factor(tanδ)</b>	≤0.1%
<b>Withstand Voltage</b>	Between terminals to case: 2U <sub>R</sub> +1500VAC Minimum of 2000VAC
	Between terminals:4.3U <sub>R</sub> (DC)/5S
<b>Insulation Resistance (I.R.)</b>	C <sub>R</sub> ≤0.33μF, IR≥15000MΩ C <sub>R</sub> >0.33μF, IR≥6000S 注: T[s]=I.R.[MΩ]*CN [μF] 20°C、100V、60S

## Dimensions (mm) and Approval

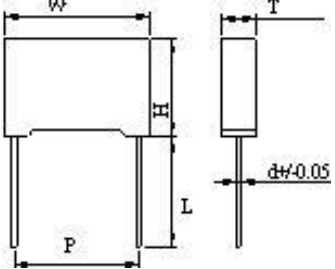
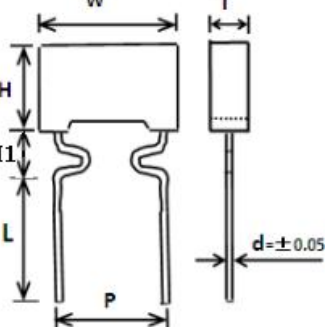


Capacitance ( $\mu$ F)	Rated Voltage	Size (mm)				
		W $\pm$ 0.5	H $\pm$ 0.5	T $\pm$ 0.5	P $\pm$ 1.0	d $\pm$ 0.05
0.01	275VAC/305VAC/310VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.022	275VAC/305VAC/310VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.033	275VAC/305VAC/310VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.047	275VAC/305VAC/310VAC	13.0	12.0	6.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.056	275VAC/305VAC/310VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.068	275VAC/305VAC/310VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.082	275VAC/305VAC/310VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.1	275VAC/305VAC/310VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.15	275VAC/305VAC/310VAC	13.0	15.0	8.0	10.0	0.6
		15.0	14.0	8.0	12.5	0.6
		18.0	13.5	7.5	15.0	0.8
		26.5	15.0	6.0	22.5	0.8
0.18	275VAC/305VAC/310VAC	15.0	16.0	10.0	12.5	0.6
		18.0	14.5	8.5	15.0	0.8
		26.5	16.5	7.0	22.5	0.8

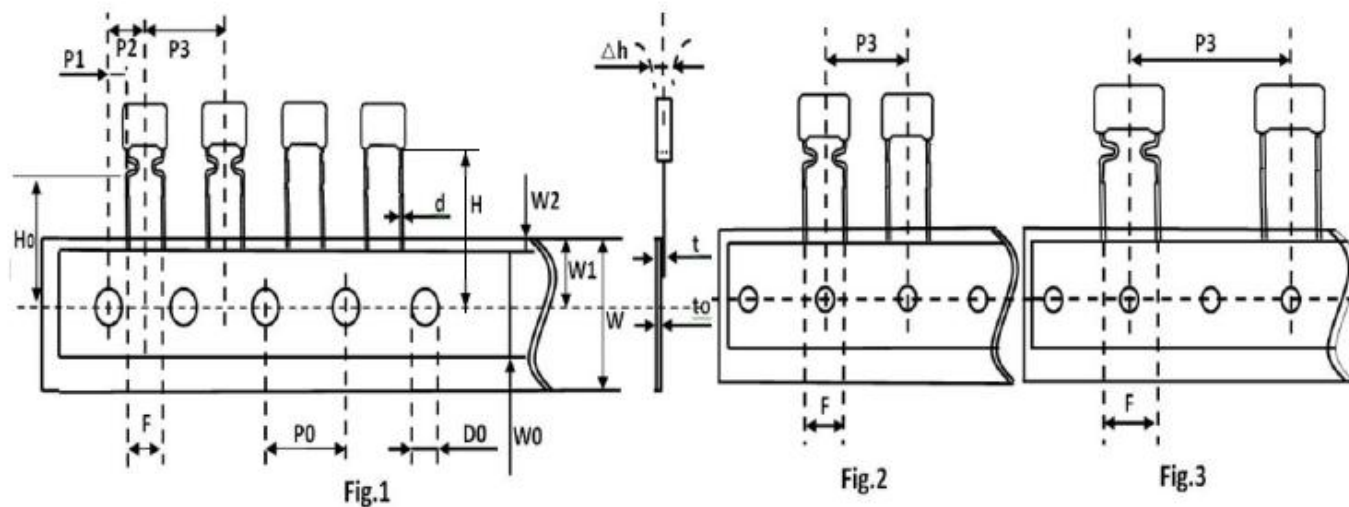
Capacitance ( $\mu$ F)	Rated Voltage	Size (mm)				
		W $\pm$ 0.5	H $\pm$ 0.5	T $\pm$ 0.5	P $\pm$ 1.0	d $\pm$ 0.05
0.22	275VAC/305VAC/310VAC	15.0	16.0	10.0	12.5	0.6
		18.0	14.5	8.5	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.27	275VAC/305VAC/310VAC	18.0	16.0	10.0	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.33	275VAC/305VAC/310VAC	18.0	16.0	10.0	15.0	0.8
		26.5	17.0	9.0	22.5	0.8
0.39	275VAC/305VAC/310VAC	18.0	16.0	10.0	15.0	0.8
		26.5	17.0	8.5	22.5	0.8
0.47	275VAC/305VAC/310VAC	18.0	19.0	11.0	15.0	0.8
		26.5	19.0	10.0	22.5	0.8
		31.0	20.5	11.0	27.5	0.8
0.56	275VAC/305VAC/310VAC	26.5	19.0	10.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
0.68	275VAC/305VAC/310VAC	26.5	20.0	11.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
0.82	275VAC/305VAC/310VAC	26.5	20.0	12.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
1.0	275VAC/305VAC/310VAC	26.5	22.0	12.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
1.2	275VAC/305VAC/310VAC	26.5	23.0	13.0	22.5	0.8
		31.0	22.0	13.0	27.5	0.8
1.5	275VAC/305VAC/310VAC	26.5	22.0	12.0	22.5	0.8
		41.0	28.5	16.0	37.5	0.8
1.8	275VAC/305VAC/310VAC	31.0	25.0	14.0	27.5	0.8
		41.0	28.5	16.0	37.5	0.8
2.0	275VAC/305VAC/310VAC	31.0	25.0	14.0	27.5	0.8
		41.0	31.5	18.0	37.5	0.8
2.2	275VAC/305VAC/310VAC	31.0	25.0	15.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
2.5	275VAC/305VAC/310VAC	31.0	28.0	18.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
2.7	275VAC/305VAC/310VAC	31.0	37.0	22.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
3.0	275VAC/305VAC/310VAC	31.0	33.0	18.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
3.3	275VAC/305VAC/310VAC	31.0	37.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
3.9	275VAC/305VAC/310VAC	31.0	31.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
4.7	275VAC/305VAC/310VAC	31.0	37.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8

## Lead Configuration

Lead Style	Drawing	Lead Length L (mm)	Coating Lead Length H1(mm)
Long Straight		① $[2.5 \leq L < 6.0] \pm 0.5$ ; ② $[6.0 \leq L \leq 10] \pm 1.0$	/
Inner Crimped		① $[2.5 \leq L < 6.0] \pm 0.5$ ; ② $[6.0 \leq L \leq 10] \pm 1.0$	Pitch $P > 10\text{mm}$ : $H1 < 6.0\text{mm}$ Pitch $P \leq 10\text{mm}$ : $H1 < 5.0\text{mm}$

## 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
Δh	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