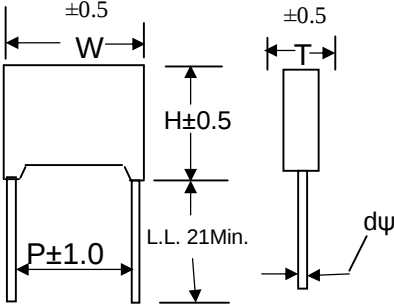
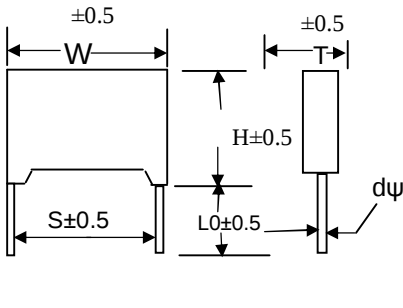


POWER SKY (H.K.) LTD.

PRODUCT SPECIFICATIONS

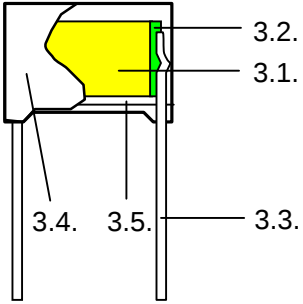
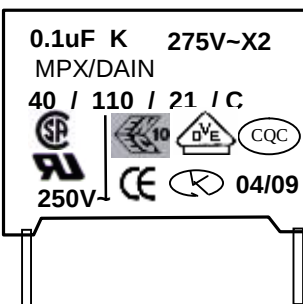
ISSUED DATE : 2010-12-1

CUSTOMER:						
CUSTOMER'S REFERENCE:						
DESCRIPTIONS :						
OUR TYPE:						
Metallized Polypropylene Film AC Capacitor (Interference Suppressors Class-X2)						
MPX SERIES						
Fig.						
						
		(1) (2)				
1. PRODUCT DIMENSIONS : unit : mm						
CODE	MFD	250V/275VAC				
		W	H	T	P	d
102-103	0.001-0.01	13.0	11.0	5.0	10.0	0.6
103	0.01	18.0	11.0	5.0	15.0	0.8
123	0.012	18.0	11.0	5.0	15.0	0.8
153	0.015	18.0	11.0	5.0	15.0	0.8
183	0.018	18.0	11.0	5.0	15.0	0.8
223	0.022	18.0	11.0	5.0	15.0	0.8
273	0.027	18.0	11.0	5.0	15.0	0.8
393	0.033	18.0	11.0	5.0	15.0	0.8
473	0.047	18.0	11.0	5.0	15.0	0.8
563	0.056	18.0	11.0	5.0	15.0	0.8
683	0.068	18.0	11.0	5.0	15.0	0.8
823	0.082	18.0	12.0	6.0	15.0	0.8
104	0.1	18.0	12.0	6.0	15.0	0.8
124	0.12	18.0	13.5	7.5	15.0	0.8
154	0.15	18.0	14.5	8.5	15.0	0.8
184	0.18	18.0	14.5	8.5	15.0	0.8
224	0.22	26.5	15.5	9.5	15.0	0.8
224	0.22	26.5	16.5	7.0	22.5	0.8
274	0.27	26.5	17.0	8.5	22.5	0.8
334	0.33	26.5	17.0	8.5	22.5	0.8
394	0.39	26.5	19.0	10.0	22.5	0.8
474	0.47	26.5	19.0	10.0	22.5	0.8
474	0.47	32.0	20.0	11.0	27.5	0.8
564	0.56	32.0	20.0	11.0	27.5	0.8
684	0.68	32.0	20.0	11.0	27.5	0.8
824	0.82	32.0	22.0	13.0	27.5	0.8
105	1.0	32.0	22.0	13.0	27.5	0.8
105	1.0	32.5	25.0	16.0	27.5	0.8
PREPARED BY:		CHECKED BY :		APPROVED BY :		

POWER SKY (H.K.) LTD.

PRODUCT SPECIFICATIONS

TYPE : **MPX**

NO.	ITEM	DESCRIPTIONS
1.	SCOPE	This specifications cover the requirements of OUR Metallized Polypropylene Film AC Capacitor (Interference Suppressors Class-X2), Type : MPX
2.	STANDARD ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS	
2.1.	AMBIENT TEMPERATURE	15°C to 35°C (If there is any doubt on the results, the measurements shall be made at +20 +/- 5°C.)
2.2.	RELATIVE HUMIDITY (R.H.)	45% to 75% (If there is any doubt on the results, the measurements shall be made at 60% to 70%.)
2.3.	AIR PRESSURE	86 kpa to 106 kpa.
2.4.	OPERATING TEMPERATURE RANGE	-40°C to +85°C for which the capacitor can be operated continuously at rated voltage.
3.	CONSTRUCTION	
3.1.	DIELECTRIC	Metallized Polypropylene Film
3.2.	METAL SPRAY	Special Solder
3.3.	LEAD WIRE	Copper-clad Steel Wire
3.4.	PLASTIC CASE	UL94V-0
3.5.	EPOXY RESIN	UL94V-0
		
4.	MARKING	
4.1.	MANUFACTURER'S SYMBOL	DAIN stands for DAIN
4.2.	TYPE OR MATERIAL	"MPX" stands for MPX type.
4.3.	CAPACITOR CLASS	"X2" stands for X2 class
4.4.	CLIMATIC CATEGORY	"GMF" stands for 40/100/21.
4.5.	NOMINAL CAPACITANCE	Capacitance value in uF.
4.6.	TOLERANCE	"K" for +/-10%; "M" for +/-20%
4.7.	RATED VOLTAGE	in VAC rating.
4.8.	APPROVAL BRANDS	UL, CSA, VDE, DEMKO, FIMKO, NEMKO, SEMKO, SEV, CQC
4.9.	DATE CODE	in yy/mm.
4.10.	MARKING COLOR	Black
		

POWER SKY (H.K.) LTD.

PRODUCT SPECIFICATIONS

TYPE : **MPX**

5. ELECTRICAL CHARACTERISTICS				
NO.	ITEM		PERFORMANCE	TEST CONDITIONS
5.1.	Withstand Voltage (TV)	Between Terminals	Shall be no abnormality.	Apply 1283VDC for 60 sec or 1800VDC for 1 sec, Charge current must be 1A max.
		Between Terminals & Enclosure	Shall be no abnormality.	Apply 2500VDC for 60sec.
5.2.	Insulation Resistance (I.R.)		>= 15,000 MOhm (C <= 0.33uF) >= 5,000 MOhm (C> 0.33uF)	Apply vt+/-15%for 60+/-5sec.at+20+/-2oC.
5.3.	Capacitance (CAP)		Within the tolerance specified. (at +20 +/- 5°C).	Measuring Frequency : 1 KHz +/- 10%. Measuring Voltage : 1 Vrms.max.
5.4.	Dissipation Factor (DF)		0.001 (0.1%)max. at 1 KHz.	Measuring Frequency : 1 KHz +/- 10%. Measuring Voltage : 1 Vrms.max.
5.5.	Solderability		More than 95% of circumferential surface of lead wire shall be covered with new solder.	Soldering temperature : +265 +/- 5°C. Immersion duration : 2 +/- 0.5 sec.
6. MECHANICAL CHARACTERISTICS				
NO.	ITEM		PERFORMANCE	TEST CONDITIONS
6.1.	Terminal Strength	Tensile	Shall be no abnormality.	Testing method per IEC 68-2-21. Apply 1.0 kg for 10 +/- 1sec. to the terminal in the axial direction, and acting in a direction away from the body.
		Bending	Shall be no abnormality.	Apply 0.5 kg for 2 cycles. Each cycle includes: 90° once, return to its initial position for 2-3 sec., and then to the opposite direction once.
7. ENDURANCE CHARACTERISTICS				
NO.	ITEM		PERFORMANCE	TEST CONDITIONS
7.1.	Temperature Cycle	Appearance	Shall be no remarkable change.	Test Temperature Cycle : Total 5 cycles. Each cycle includes : 1. +20 +/- 2°C for 3 min. 2. -40 +0/-3 °C for 30 min. 3. +20 +/- 2°C for 3 min. 4. +85 +3/-0 °C for 30 min. 5. +20 +/- 2°C for 3 min.
		Withstand Voltage	Shall satisfy No. 5.1.	
		Capacitance Change Rate (ΔC/C)	Within +/- 2% of the value before test.	
		Dissipation Factor	@ 1 KHz : 0.001 (0.1%) max.	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	

POWER SKY (H.K.) LTD.

PRODUCT SPECIFICATIONS

TYPE : **MPX**

NO.	ITEM		PERFORMANCE	TEST CONDITIONS
7.2.	High Temperature Loading	Appearance	Shall be no remarkable change.	Testing method per IEC 60384-14. Refer to JIS C 5102-1994. Test Temperature : +85 +/- 2 °C. Apply 150% of rated voltage for 2,000 +24/-0 hrs; After test, allow it stay alone for 1.5 +/- 0.5 hrs at standard temperature and humidity before making measurements.
		Withstand Voltage	Shall satisfy No. 5.1.	
		Capacitance Change Rate ($\Delta C/C$)	Within +/-5% of the value before test.	
		Dissipation Factor	0.001 (0.1%) max.at 1Khz	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	
7.3.	Damp Heat Loading	Appearance	Shall be no remarkable change. The marking shall be legible.	Refer to JIS C 0022. Test temperature :+40 +/- 2 °C Test humidity : 90% to 95% R.H. Test voltage : rated voltage. Test duration : 500 +24/-0 hrs. After test, allow it stay alone for 1.5 +/- 0.5 hrs at standard temperature and humidity before making measurements.
		Withstand Voltage	Shall satisfy No. 5.1.	
		Capacitance Change Rate ($\Delta C/C$)	Within +/- 3% of the value before test.	
		Dissipation Factor	0.001 (0.1%) max.at 1Khz	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	
7.4.	Soldering Heat Resistance	Appearance	Shall be no remarkable change. The marking shall be legible.	Warm up Temperature:120±2°C for 120sec. Soldering Temperature : +270 +2/- 0°C. Immersion Duration : 10 +/- 0.5 sec. Immersion Depth : 1.5 +/- 0.5 mm from roots. After test, allow it stay alone for 1.5 +/- 0.5 hrs. at standard temperature and humidity before making measurements.
		Withstand Voltage Between Terminals	Shall satisfy No. 5.1.	
		Capacitance Change Rate ($\Delta C/C$)	Within +/- 3% of the value before test.	
		Dissipation Factor	0.001 (0.1%) max.at 1Khz	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	
		Connection of Element	Shall be stable.	
7.5.	Dry Heat Resistance	Appearance	Shall be no remarkable change.	Test Temperature : +100 +/- 2°C Test Duration : 48 +1/-0 hrs.
		Withstand Voltage	Shall satisfy No. 5.1.	
		Capacitance Change Rate ($\Delta C/C$)	Within +0/- 3% of the value before test.	
		Dissipation Factor	@ 1 KHz : 0.001 (0.1%) max.	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	
7.6.	Cold Resistance	Appearance	Shall be no remarkable change.	Test Temperature : -40 +/-2 °C Test Duration : 48 +/-1 hrs.
		Withstand Voltage	Shall satisfy No. 5.1.	
		Capacitance Change Rate ($\Delta C/C$)	Within +3/- 0% of the value before test.	
		Dissipation Factor	@ 1 KHz : 0.001 (0.1%) max.	
		Insulation Resistance (I.R.)	>= 50% of the limit value of No. 5.2.	

POWER SKY (H.K.) LTD.

PRODUCT SPECIFICATIONS

TYPE : **MPX**

NO.	ITEM	PERFORMANCE	TEST CONDITIONS
7.7.	Humidity Resistance	Appearance	Testing method per IEC 68-2-3 Ca. Refer to JIS C 0022. Test Temperature : +40 +/- 2°C. Test Humidity : 90% to 95% R.H. Test Duration : 500 +24/-0 hrs After test, allow it stay alone for 1.5 +/- 0.5 hrs at standard temperature and humidity before making measurements.
		Withstand Voltage	
		Capacitance Change Rate ($\Delta C/C$)	
		Dissipation Factor	
		Insulation Resistance	
7.8.	Vibration Resistance	Connection Strength	Testing method per IEC 68-2-6 Fc. Frequency Change : 10--55--10 Hz. Vibration Distance : 1.5 mm. Test Direction : X, Y, Z. Test Duration : 2 +1/- 0 hrs each direction.
		Appearance	
7.9.	Rapid Temperature Change	Appearance	Testing method per IEC 68-2-14 Na. Test Temperature Cycle : Total 5 cycles. High Temperature : +85 +/- 5 °C Low Temperature : -40 +/- 5°C 30 min +/- 10% for each temperature.
		Withstand Voltage	
		Capacitance Change Rate ($\Delta C/C$)	
		Dissipation Factor	
		Insulation Resistance	

8. ACCEPTABLE QUALITY LEVEL (AQL)

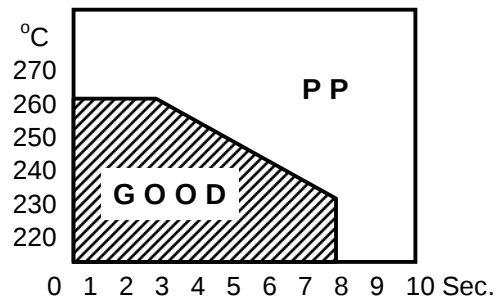
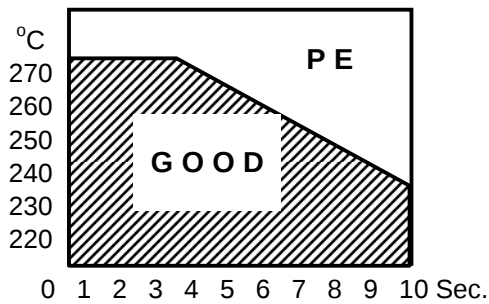
NO.	ITEM	AQL	SAMPLING PLAN
8.1.	Appearance AQL	0.65	According to MIL-STD-105E level II. By lot outgoing inspection.
8.2.	Dimension AQL	0.65	
8.3.	Mechanical Characteristics AQL	0.40	
8.4.	Electrical Characteristics AQL		
	CAP, DF,	0.04	
	TV, IR,	Zero Defect	

POWER SKY (H.K.) LTD.

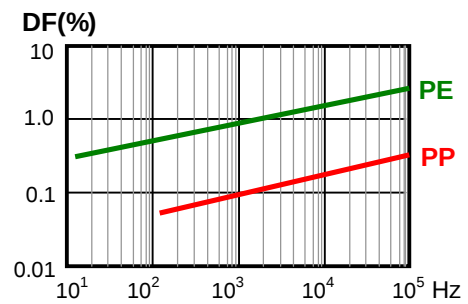
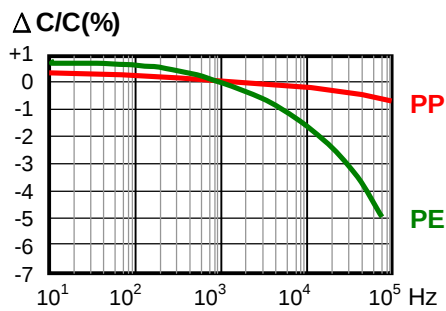
CHARACTERISTICS REFERENCE

焊錫溫度、頻率、溫度特性曲線圖

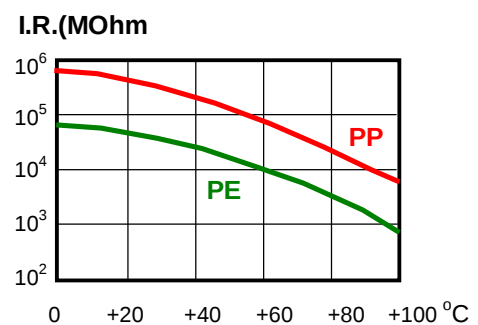
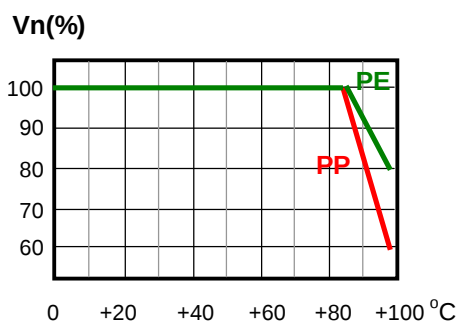
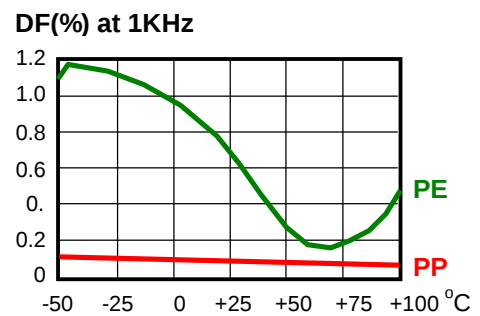
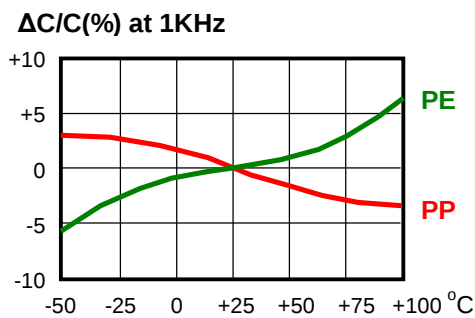
Soldering Temperature VS Time



Frequency Characteristics



Temperature Characteristics



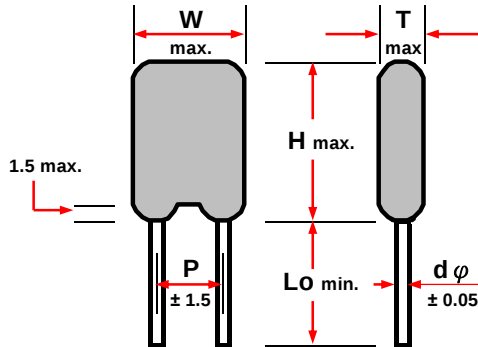
POWER SKY (H.K.) LTD.

Diagrams & Dimension Allowances

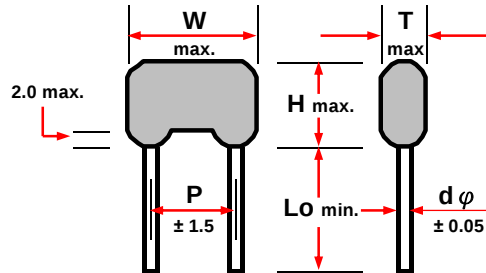
產品圖示及尺寸公差

Unit : mm

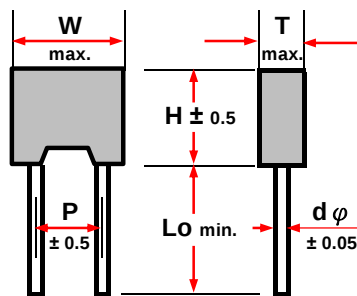
1. Radial, Dipped, Inductive (PEI, PPL)



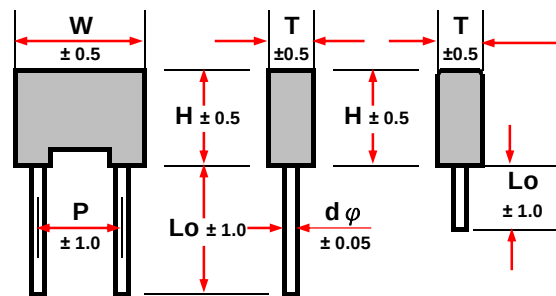
2. Radial, Dipped, Non-Inductive (PEN, PENM, DMPE, MPEM, DMPC, PPN, PPNM, MPP, MPH, MPA, MPPS, MPSA, MPFA)



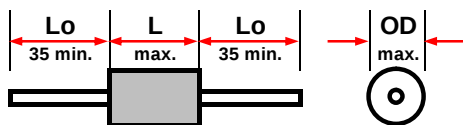
3. Radial, Minibox (EMPE)



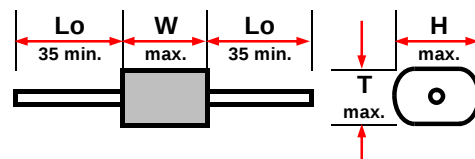
4. Radial, Encapsulated (MPEB, MPPB, MPH, MPAB, PPSB, PSAB, PFAB, MPX)



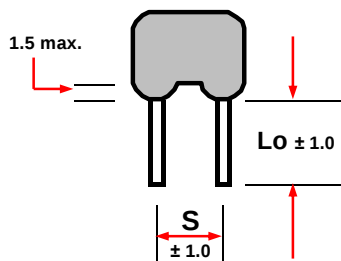
5. Axial, Tubular (TMPE, TMPP, TMPH, TMPA, TPPS, TPSA, TPFA)



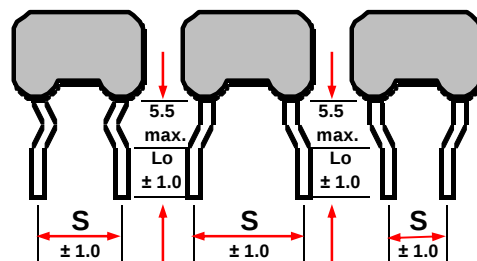
6. Axial, Flat (FMPE, FMPP, FMPPH, FMPPA, FPPS, FPSA, FPFA)



7. Straight Cut Lead



8. Forming Lead



※ Unless otherwise specified.