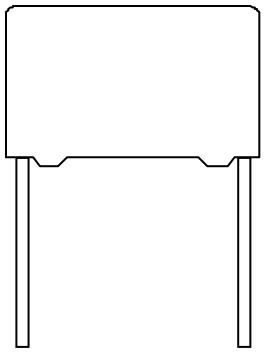
Metallized Polypropylene Film Capacitors PCPW 225
(Switching Application)



QUICK REFERENCE DATA

Capacitance range	1.0 to 10 μF
Capacitance tolerance	±10%, (±5%)
Rated voltage (V_{Rdc})	250, 450, 630, 850Vdc
Non recurrent surge voltage (Vpk)	400, 600, 800, 1200Vdc
Max. repetitive peak voltage (Vpkr)	1.15 x V_R (max. 30min. within one day)
Max. non-repetitive peak current (Ipkr)	1.5 x Ipk
Dissipation factor (DF)	0.0005 at 1KHz(C≤5uF), 0.0008 at 1KHz(5uF<C≤25uF)
	0.0010 at 1KHz(C>25uF)
Insulation resistance (IR)	30,000s after 1minute of electrification at 100Vdc (V_{Rdc}<500Vdc)
	30,000s after 1minute of electrification at 500Vdc (V_{Rdc}≥500Vdc)
Test voltage with terminals (Vtt)	1.6 x V_{Rdc} applied for 60s
Test voltage with terminals (Vtc)	3KV 50-60Hz applied for 60s
IEC Climatic category	40/ 105 / 56
Temperature range	-40℃ ~ +105℃
Life time expectancy	100,000 hours at V_R, 70℃
	40,000 hours at V_R, 85℃
Reference	IEC 60384-16 / IEC61071
Potting & Encapsulation material	Qualified in accordance with UL94V-0

FEATURES	APPLICATIONS
. Self-Healing	. Switching applications.
. Low contact resistance	. High frequency, high current applications
. Low loss dielectric	. Industrial and motor speed control
. High ripple current	. induction heater

• Please refer to caution and warning at http://www.pilkor.co.kr/download/Introductions.pdf before using these products.

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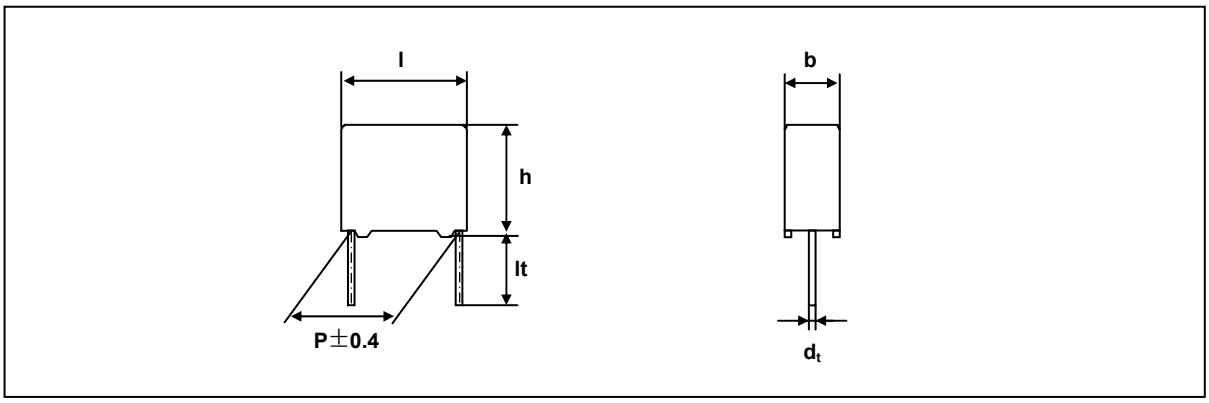
Ordering Information



PCPW 225 X X X X X X

Type series

Capacitance

Code	Voltage
A	250V mini
J	450V mini
Q	630V mini
K	850V mini

Code	Original pitch
L	27.5mm

Available versions				Product (l_{max})
Code	Packing method	C-tol.	Lead length & Height	31.0
				Pitch (P)
2	Loose in box	±10%	lt = 5.0±1.0mm	27.5
3	Loose in box	±10%	lt =25.0±2.0mm	27.5

Packing Information

SMALLEST PACKING QUANTITIES (SPQ)	Loose in box	
	lt = 5.0 ± 1.0mm	lt = 25.0 ± 1.0mm
11.0 x 21.0 x 31.0	500	250
13.0 x 23.0 x 31.0	250	250
15.0 x 25.0 x 31.0	250	250
18.0 x 28.0 x 31.0	200	200
21.0 x 31.0 x 31.0	150	150

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V_{Rdc} = 250V mini **V_{Rac}(3) = 160 V~** **Vpk = 400 V**

Cap (μF)	b x h x l (mm)	d_t (mm)	P (mm)	dv/dt (V/us)	Ipk (A)	Irms(1) (A)	ESR(2) (mΩ)	Code: Loose in box ± 10%, lt = 5±1 mm
1.0	11.0 X 21.0 X 31.0	0.8	27.5	55	55	5.5	10.1	PCPW 225LA2105
2.2				55	121	6.6	7.1	PCPW 225LA2225
3.3				55	182	6.3	8.0	PCPW 225LA2335
4.7	13.0 X 23.0 X 31.0	0.8	27.5	55	259	7.3	6.6	PCPW 225LA2475
5.0				55	275	7.5	6.3	PCPW 225LA2505
5.6	15.0 X 25.0 X 31.0	1.0	27.5	55	308	7.9	5.8	PCPW 225LA2565
6.8				55	374	8.7	5.0	PCPW 225LA2685
8.0	18.0 X 28.0 X 31.0	1.0	27.5	55	440	9.5	4.4	PCPW 225LA2805
10				55	550	10.7	3.4	PCPW 225LA2106

V_{Rdc} = 450V mini **V_{Rac}(3) = 220 V~** **Vpk = 600 V**

Cap (μF)	b x h x l (mm)	d_t (mm)	P (mm)	dv/dt (V/us)	Ipk (A)	Irms(1) (A)	ESR(2) (mΩ)	Code: Loose in box ± 10%, lt = 5±1 mm
1.0	11.0 X 21.0 X 31.0	0.8	27.5	70	70	5.5	10.1	PCPW 225LJ2105
2.2				70	154	6.6	7.1	PCPW 225LJ2225
3.3	13.0 X 23.0 X 31.0	0.8	27.5	70	231	8.1	5.8	PCPW 225LJ2335
3.9	15.0 X 25.0 X 31.0	1.0	27.5	70	273	8.8	5.2	PCPW 225LJ2395
4.7	18.0 X 28.0 X 31.0	1.0	27.5	70	329	9.6	4.6	PCPW 225LJ2475
5.6				70	392	10.4	4.1	PCPW 225LJ2565
6.8	21.0 X 31.0 X 31.0	1.0	27.5	70	476	11.1	3.4	PCPW 225LJ2685
8.0				70	560	11.5	2.9	PCPW 225LJ2805

(1) Max. at 100KHz, +70℃
(2) Typical values at 100KHz
(3) Not suitable for across the line application

Metallized Polypropylene Film Capacitors (Switching Application) PCPW 225

V_{Rdc} = 630V mini **V_{Rac}(3) = 330 V~** **V_{pk} = 800 V**

Cap (μF)	b x h x l (mm)	d_t (mm)	P (mm)	dv/dt (V/us)	Ipk (A)	Irms(1) (A)	ESR(2) (mΩ)	Code: Loose in box ± 10%, lt = 5±1 mm
1.0	11.0 X 21.0 X 31.0	0.8	27.5	90	90	5.5	10.1	PCPW 225LQ2105
2.2	15.0 X 25.0 X 31.0	1.0	27.5	90	198	7.5	6.9	PCPW 225LQ2225
3.3	18.0 X 28.0 X 31.0	1.0	27.5	90	297	9.0	5.2	PCPW 225LQ2335
3.9	21.0 X 31.0 X 31.0	1.0	27.5	90	351	9.7	4.5	PCPW 225LQ2395

V_{Rdc} = 850V mini **V_{Rac}(3) = 330 V~** **V_{pk} = 1200 V**

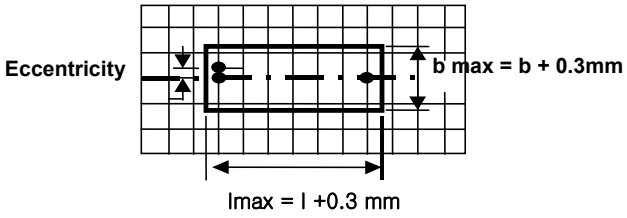
Cap (μF)	b x h x l (mm)	d_t (mm)	P (mm)	dv/dt (V/us)	Ipk (A)	Irms(1) (A)	ESR(2) (mΩ)	Code: Loose in box ± 10%, lt = 5±1 mm
1.0	13.0 X 23.0 X 31.0	1.0	27.5	120	120	6.2	9.2	PCPW 225LK2105
1.5	18.0 X 28.0 X 31.0	1.0	27.5	120	180	7.8	7.1	PCPW 225LK2155
2.0	21.0 X 31.0 X 31.0	1.0	27.5	120	240	9.4	4.9	PCPW 225LK2205

(1) Max. at 100KHz, +70℃
(2) Typical values at 100KHz
(3) Not suitable for across the line application

Metallized Polypropylene Film Capacitors (Switching Application) PCPW 225

SPACE REQUIREMENTS ON PRINTED-CIRCUIT BOARD

The maximum length and width of film capacitors are shown in the following drawing ;



- Eccentricity as in drawing.
  The maximum eccentricity is smaller than or equal to the lead diameter of the product concerned.

- Product height with seating plane as given by IEC 60717 as reference : $h_{max} \leq$ h+0.3mm

CHARACTERISTICS

● **Test Voltage**

. Test Voltage (between terminations) : 1.6 x V_{Rdc}, 10s (1 min for type test)

. Test Voltage (between leads and case) : 3KV- 50Hz(or 60Hz) for 60 seconds

● **Dissipation Factor**

Rated voltage	Capacitance	Dissipation factor (x 10^{-4})	
		1 kHz	10 kHz
250V mini	C ≤ 5.0 ㎌	≤ 5	
	5.0 ㎌ < C ≤ 25.0 ㎌	≤ 8	
	C >25.0 ㎌	≤ 10	
450V mini	C ≤ 5.0 ㎌	≤ 5	
	5.0 ㎌ < C ≤ 25.0 ㎌	≤ 8	
	C >25.0 ㎌	≤ 10	
630V mini	C ≤ 5.0 ㎌	≤ 5	
	5.0 ㎌ < C ≤ 25.0 ㎌	≤ 8	
	C >25.0 ㎌	≤ 10	
850V mini	C ≤ 5.0 ㎌	≤ 5	
	5.0 ㎌ < C ≤ 25.0 ㎌	≤ 8	

● **Insulation Resistance**

The insulation resistance is measured after a voltage has been applied for 1minute ±5 second.

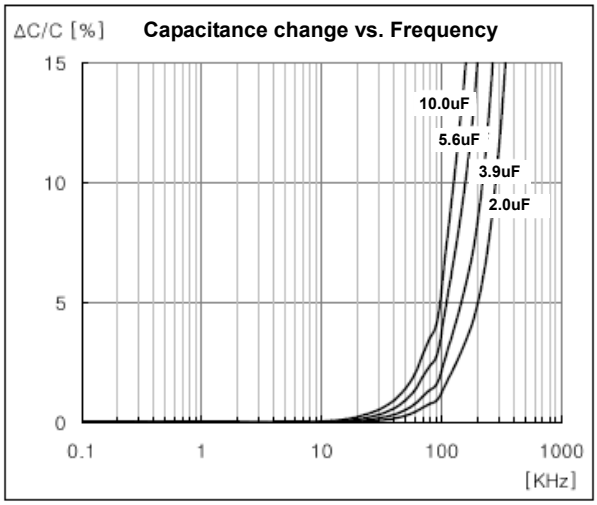
The voltage being 100±15V for the 250 / 450V versions and 500V±50V for the 630V / 850V versions

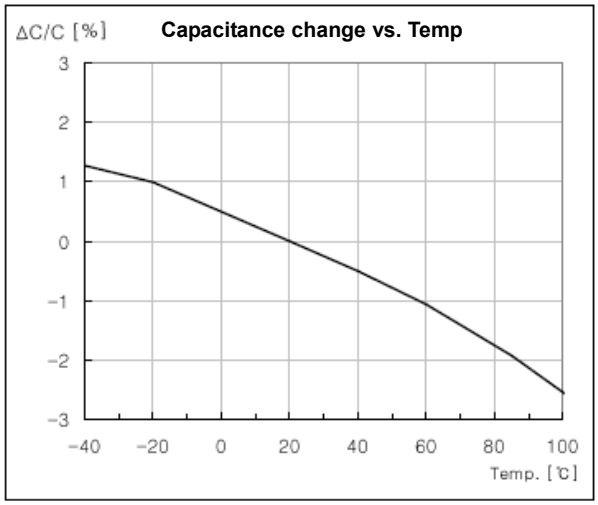
RC (Ω•F) > 30,000 s

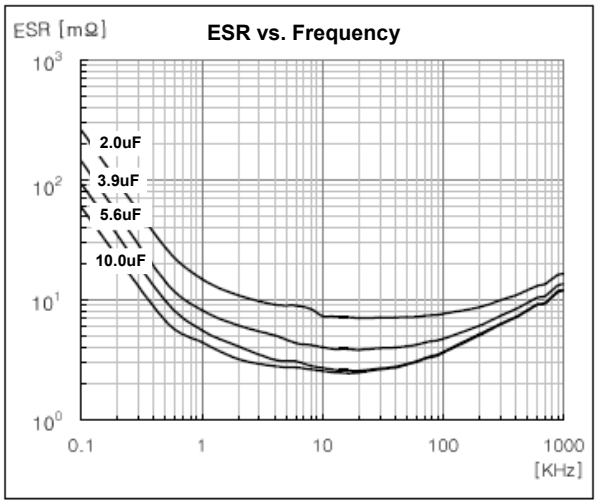
● **Self heating temperature ; Max 10℃**

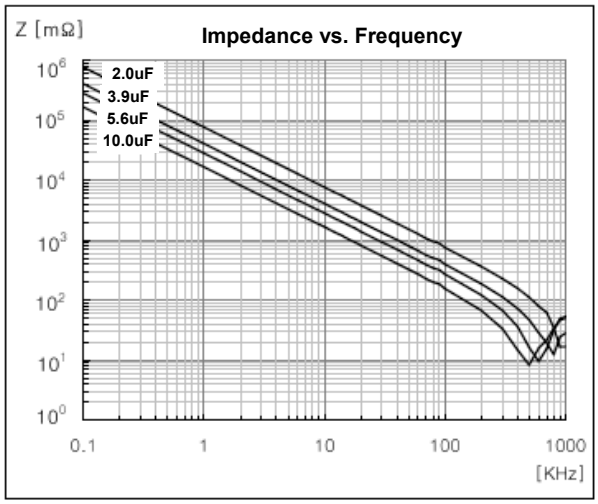
Metallized Polypropylene Film Capacitors (Switching Application) PCPW 225

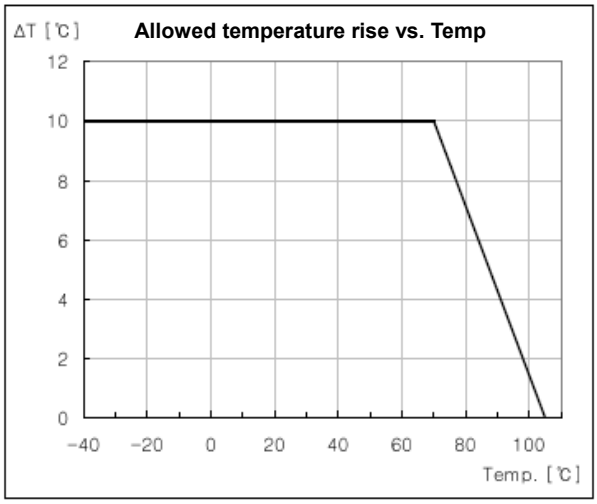
THE GRAPHS OF CHARACTERISTICS

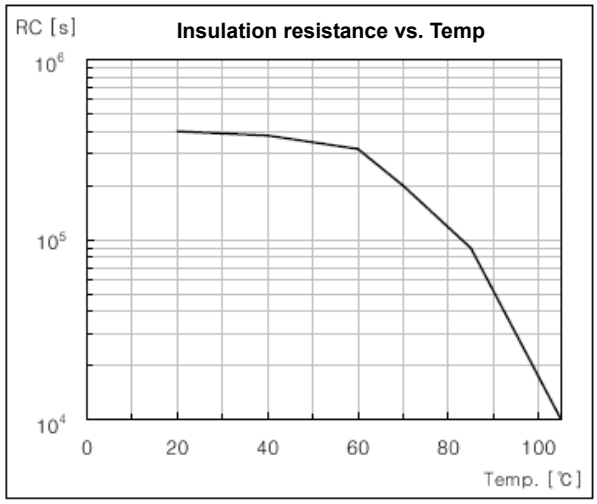












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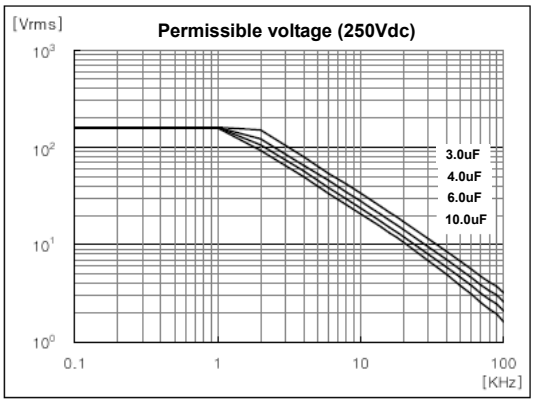
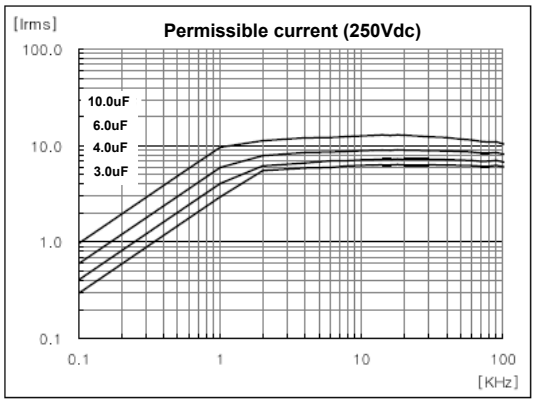
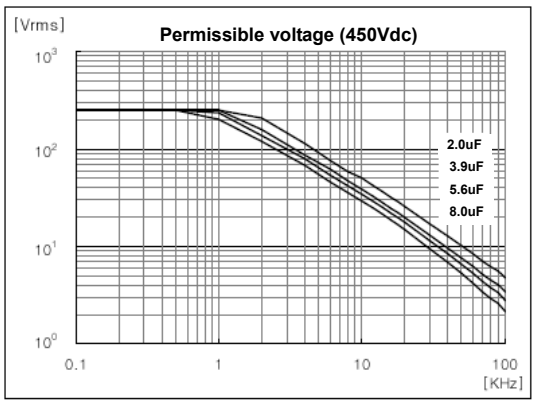
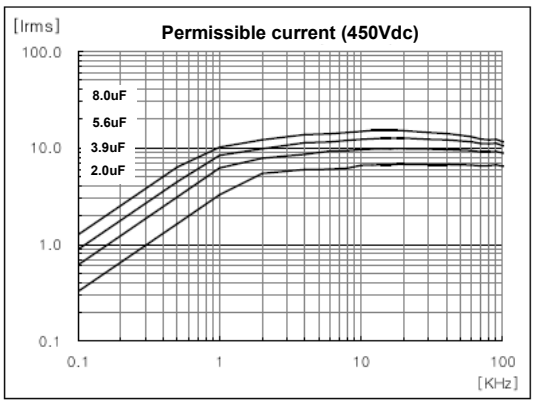
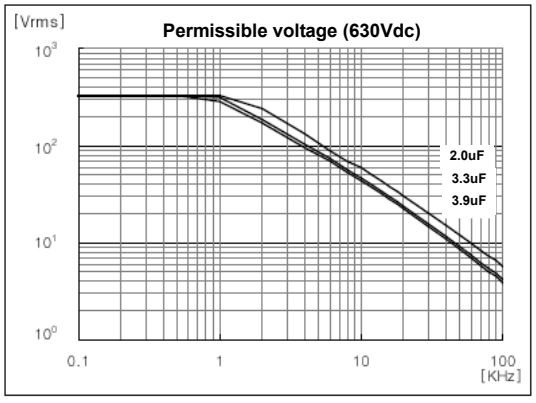
PERMISSIBLE VOLTAGE AND CURRENT AS A FUNCTION OF FREQUENCY

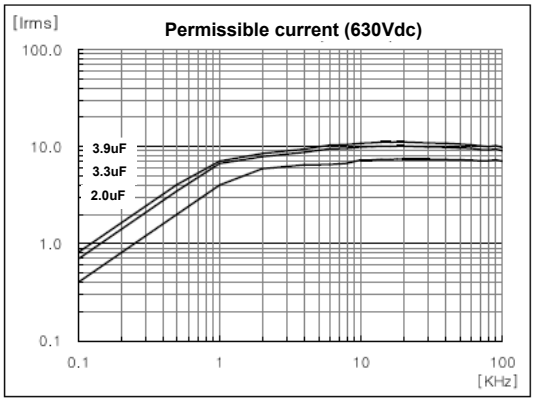


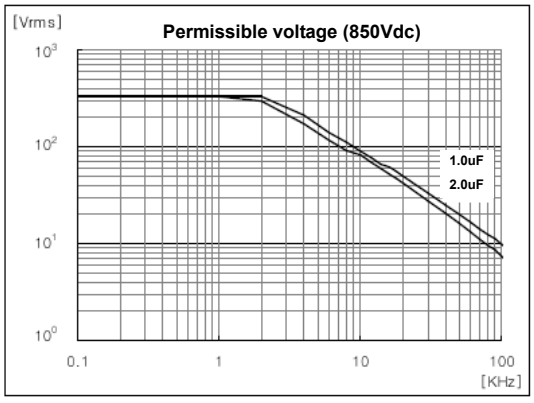


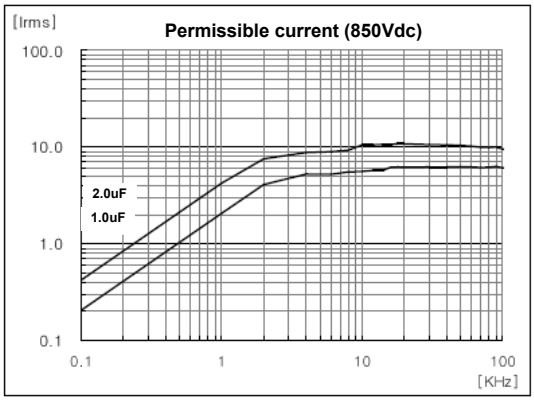












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(Switching Application)

PRODUCT MARKING

Capacitors are marked on the top or on the top and one side with the following information :

. Rated capacitance code in accordance with IEC 60062

. Tolerance on rated capacitance : J : ± 5 % K : ± 10 %

. Rated (DC) Voltage (e.g. 400 V)

. Code for dielectric material (MKP)

. Manufacturer's type designation (PCPW 225)

. Manufacturer's name (PILKOR)

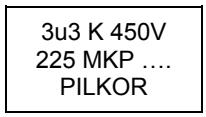
Example of marking

Pitch = 22.5mm or 27.5mm

3u3	K	450V	PILKOR
PCPW225		MKP	WK....

Marking on the top or side

Pitch = 27.5 mm



Marking on the top