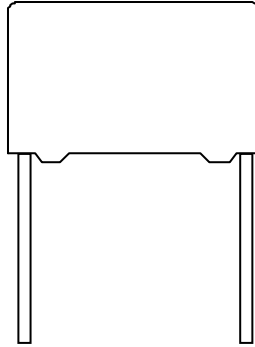


Metallized Polypropylene Film Capacitors (Switching Application)

PCPW 225



QUICK REFERENCE DATA

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

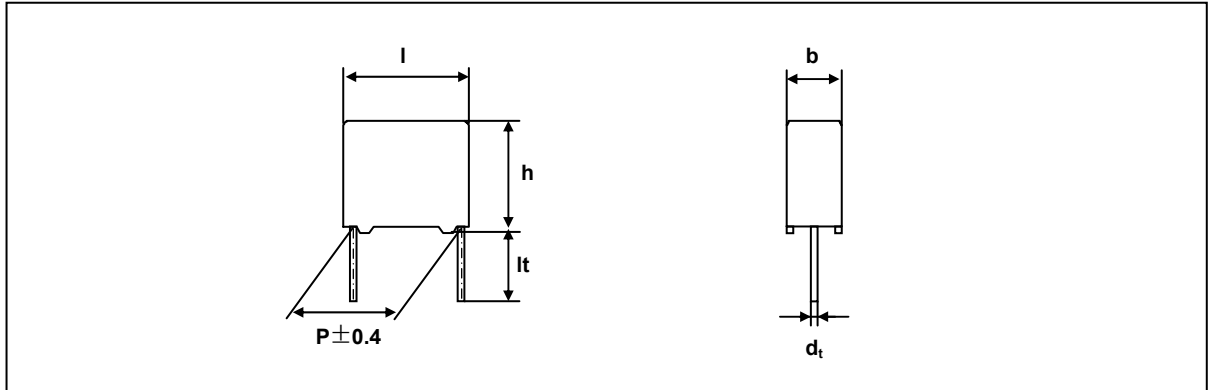
FEATURES	APPLICATIONS
<ul style="list-style-type: none"> . Self-Healing . Low contact resistance . Low loss dielectric . High ripple current 	<ul style="list-style-type: none"> . Switching applications. . High frequency, high current applications . Industrial and motor speed control . induction heater

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

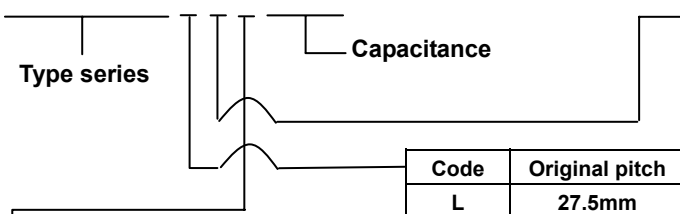
Metallized Polypropylene Film Capacitors (Switching Application)

PCPW 225

Ordering Information



PCPW 225 X X X X X X



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

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
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

Metallized Polypropylene Film Capacitors (Switching Application)

PCPW 225

 $V_{Rdc} = 250V$ mini $V_{Rac}^{(3)} = 160 V$ $V_{pk} = 400 V$

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

 $V_{Rdc} = 450V$ mini $V_{Rac}^{(3)} = 220 V$ $V_{pk} = 600 V$

Cap (μF)	b x h x l (mm)	d _t (mm)	P (mm)	dv/dt (V/us)	I _{pk} (A)	I _{rms} ⁽¹⁾ (A)	ESR ⁽²⁾ (m Ω)	Code
								Loose in box
								$\pm 10\%$, It = 5 ± 1 mm
1.0 2.2	11.0 X 21.0 X 31.0	0.8	27.5	70 70	70 154	5.5 6.6	10.1 7.1	PCPW 225LJ2105 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 5.6	18.0 X 28.0 X 31.0	1.0	27.5	70 70	329 392	9.6 10.4	4.6 4.1	PCPW 225LJ2475 PCPW 225LJ2565
6.8 8.0	21.0 X 31.0 X 31.0	1.0	27.5	70 70	476 560	11.1 11.5	3.4 2.9	PCPW 225LJ2685 PCPW 225LJ2805

⁽¹⁾ Max. at 100KHz, +70°C⁽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)	I _{pk} (A)	I _{rms} ⁽¹⁾ (A)	ESR ⁽²⁾ (m Ω)	Code
								Loose in box
								$\pm 10\%$, It = 5 \pm 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

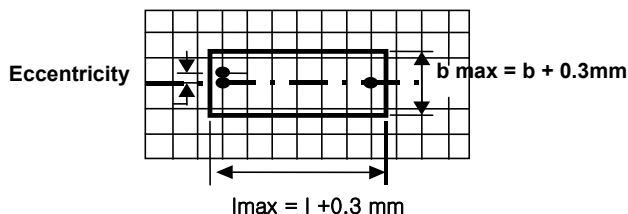
 $V_{Rdc} = 850V$ mini $V_{Rac}^{(3)} = 330 V$ $V_{pk} = 1200 V$

Cap (μF)	b x h x l (mm)	d _t (mm)	P (mm)	dv/dt (V/us)	I _{pk} (A)	I _{rms} ⁽¹⁾ (A)	ESR ⁽²⁾ (m Ω)	Code
								Loose in box
								$\pm 10\%$, It = 5 \pm 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°C⁽²⁾ Typical values at 100KHz⁽³⁾ Not suitable for across the line application

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 : $h_{\max} \leq h + 0.3\text{mm}$

CHARACTERISTICS

● Test Voltage

. Test Voltage (between terminations) : $1.6 \times V_{Rdc}$, 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 ($\times 10^{-4}$)	
		1 kHz	10 kHz
250V mini	$C \leq 5.0 \mu\text{F}$	≤ 5	
	$5.0 \mu\text{F} < C \leq 25.0 \mu\text{F}$	≤ 8	
	$C > 25.0 \mu\text{F}$	≤ 10	
450V mini	$C \leq 5.0 \mu\text{F}$	≤ 5	
	$5.0 \mu\text{F} < C \leq 25.0 \mu\text{F}$	≤ 8	
	$C > 25.0 \mu\text{F}$	≤ 10	
630V mini	$C \leq 5.0 \mu\text{F}$	≤ 5	
	$5.0 \mu\text{F} < C \leq 25.0 \mu\text{F}$	≤ 8	
	$C > 25.0 \mu\text{F}$	≤ 10	
850V mini	$C \leq 5.0 \mu\text{F}$	≤ 5	
	$5.0 \mu\text{F} < C \leq 25.0 \mu\text{F}$	≤ 8	

● Insulation Resistance

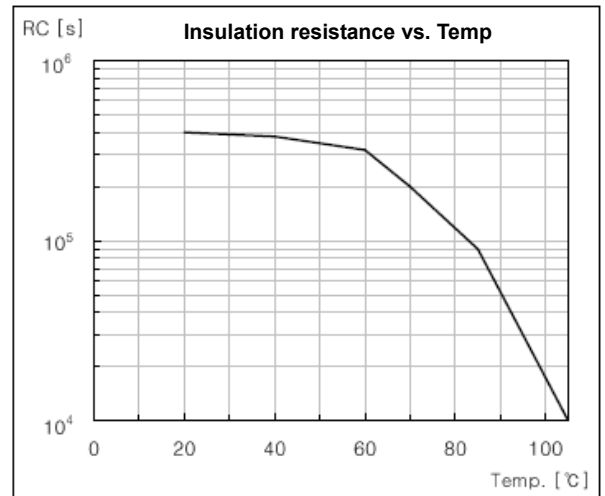
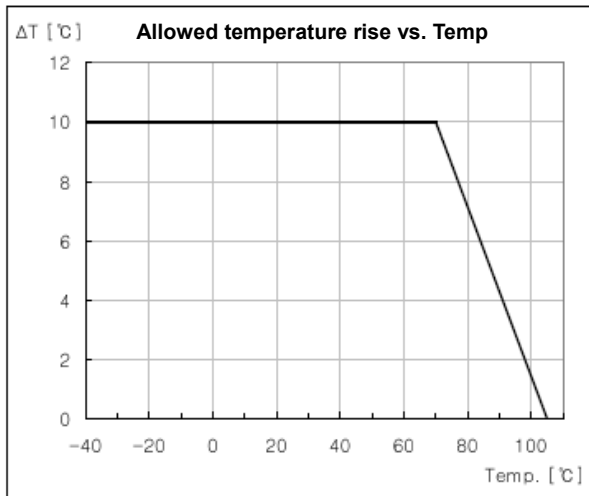
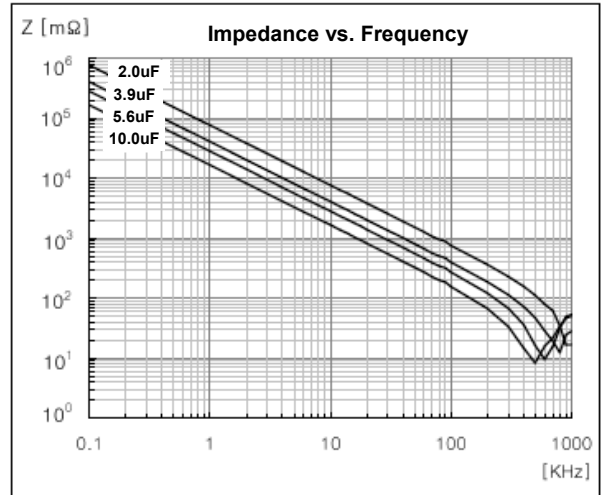
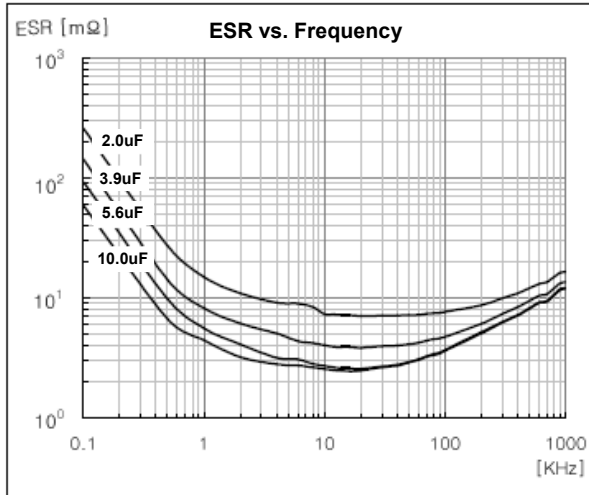
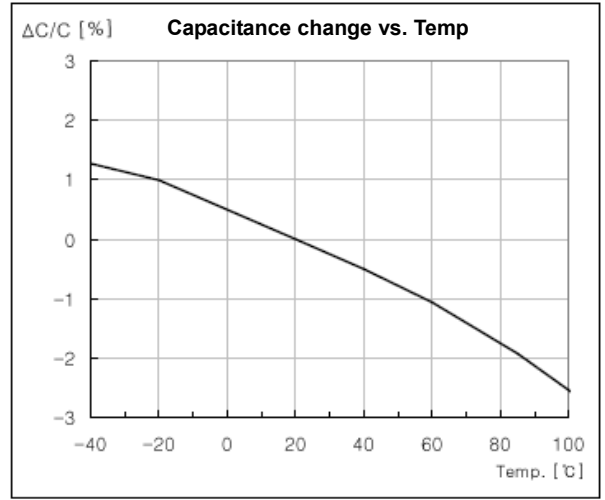
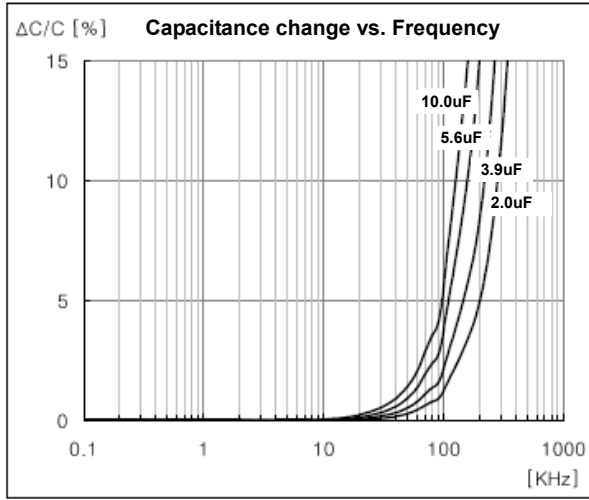
The insulation resistance is measured after a voltage has been applied for 1minute ± 5 second.

The voltage being $100 \pm 15\text{V}$ for the 250 / 450V versions and $500\text{V} \pm 50\text{V}$ for the 630V / 850V versions

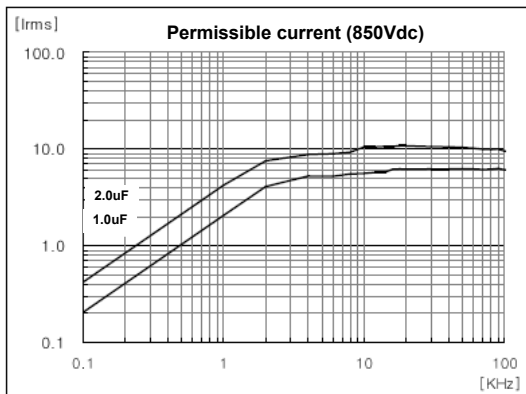
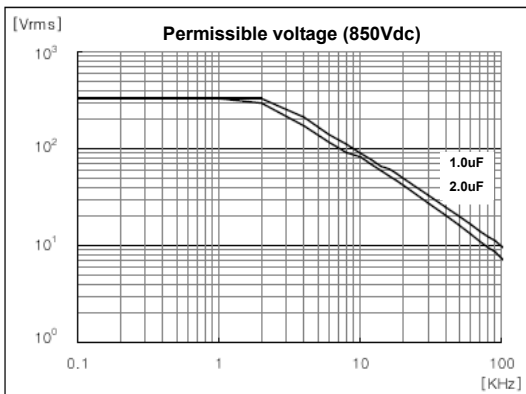
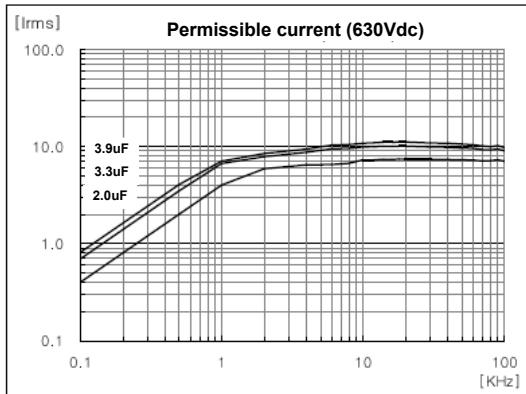
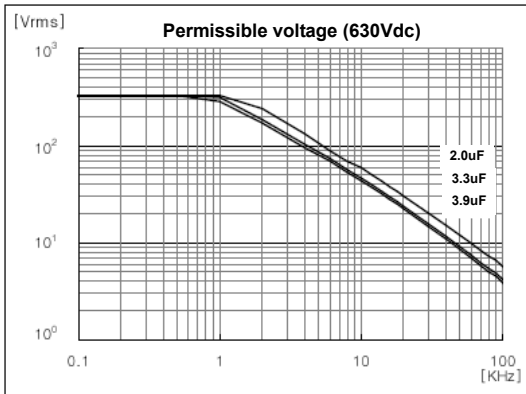
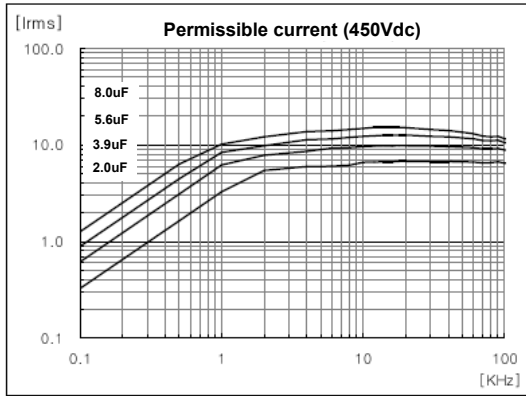
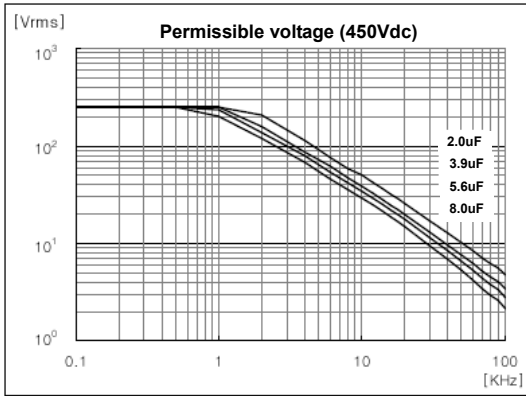
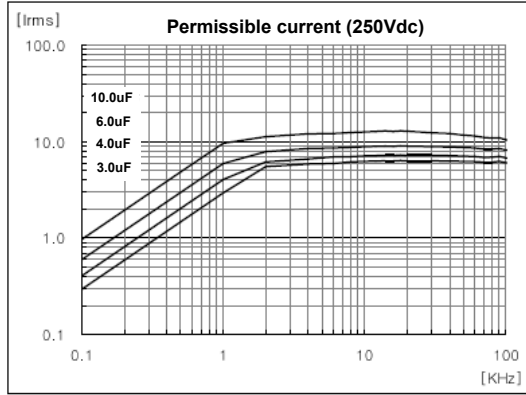
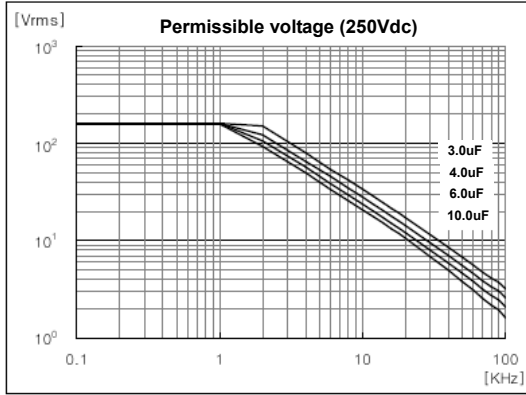
$$RC (\Omega \cdot \text{F}) > 30,000 \text{ s}$$

● Self heating temperature ; Max 10°C

THE GRAPHS OF CHARACTERISTICS



PERMISSIBLE VOLTAGE AND CURRENT AS A FUNCTION OF FREQUENCY



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 : $\pm 5\%$ K : $\pm 10\%$
- . 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

3u3 K 450V
225 MKP
PILKOR

Marking on the top