

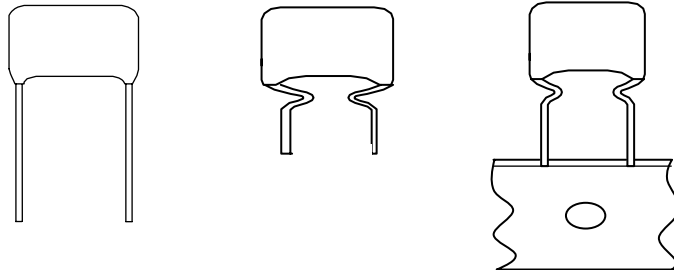
# PFC Input Capacitors

## Metallized Polyester film capacitors

PCMT 362

MKT RADIAL LACQUERED CAPACITORS(Dipped Type)-Brown

Pitch 10.0/15.0 mm



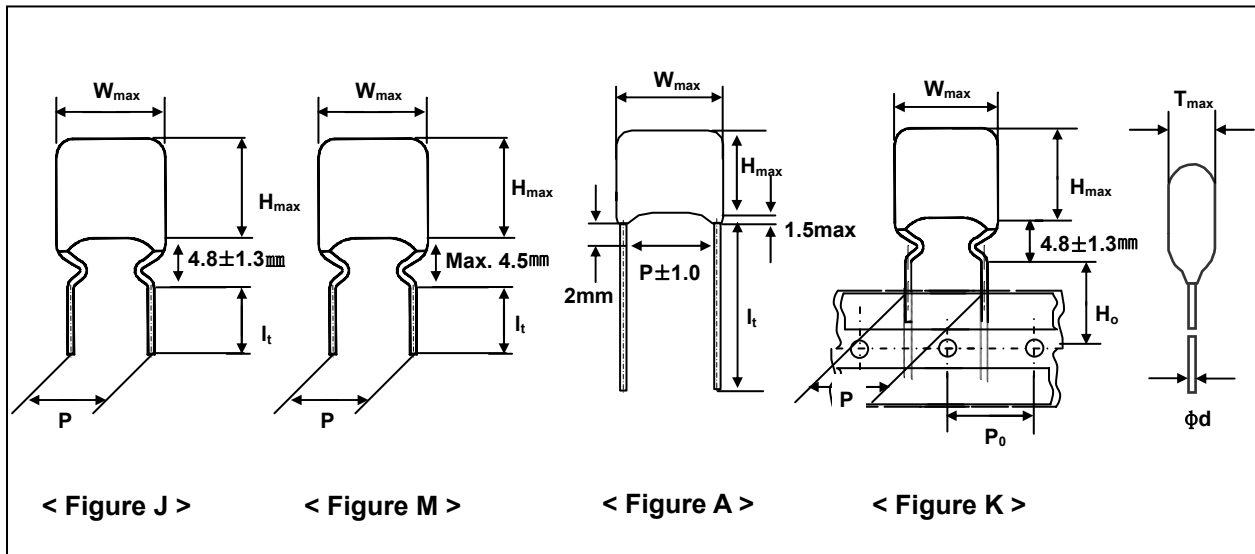
### QUICK REFERENCE DATA

Capacitance range (E12 series)	0.18 to 1.0 $\mu$ F
Capacitance tolerance	$\pm 10\%$
Rated voltage (DC)	450V ( 160Vac / 200Vac )
Climatic category (IEC 60068-1)	40/110/21 (Derate the operating voltage when operating temperature is higher than +85 $^{\circ}$ C)
Reference specification	IEC 60384-2
Coating material	Qualified in accordance with UL94V-0

<b>FEATURES</b> <ul style="list-style-type: none"> <li>. Self-healing properties</li> <li>. Flame retardant epoxy resin (UL 94V-0) coating type</li> <li>. Supplied loose in box &amp; ammo packing</li> </ul>	<b>APPLICATIONS</b> <ul style="list-style-type: none"> <li>. PFC Input Capacitor for LCD/PDP power</li> <li>. Suitable for absorbing noise of active filter</li> </ul>
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- Please refer to caution and warning at <http://www.pilkor.co.kr/download/Introductions.pdf> before using these products.

Ordering Information



PCMT 362 X X X X X

Type series

Capacitance

Code	Voltage
L	450V

Code	Pitch
D	10.0 mm
F	15.0 mm

Available versions						Product ( $W_{max}$ )	
Code	Packing method	C-tol.	Lead Figure	Lead length & Height	Hole to hole ( $P_0$ )	12.5mm	18.0mm
						Pitch(P)	
1	Loose in box	$\pm 10\%$	M	$l_t = 3.5 \pm 0.5 \text{ mm}$	-	$10.0 \pm 0.8$	$15.0 \pm 0.8$
2	Loose in box	$\pm 10\%$	A	$l_t = 20.0 \text{ mm (min.)}$	-	$10.0 \pm 1.0$	$15.0 \pm 1.0$
3	Ammo packing	$\pm 10\%$	K	$H_0 = 16.0 \text{ mm}$	$12.7 \pm 0.5$	$10.0 \pm 0.8$	$15.0 \pm 0.8$
4	Loose in box	$\pm 10\%$	J	$l_t = 4.5 \pm 0.5 \text{ mm}$	-	$10.0 \pm 0.8$	$15.0 \pm 0.8$

## Metallized Polyester film capacitors

 $V_{Rdc} = 450 \text{ V}$ 

Cap. ( $\mu\text{F}$ )	$W_{\max} \times H_{\max} \times T_{\max}$ (mm)	Mass (g)	CATALOGUE NUMBER
			PCMT 362.....
			loose in box
			lt= $4.5 \pm 0.5 \text{ mm}$
			C – tol. $\pm 10\%$
Pitch = $10.0 \pm 0.8 \text{ mm}$		dt = $0.6 + 0.06 / -0.05 \text{ mm}$	
0.18	12.5 x 10.5 x 5.5	-	PCMT 362DL4184
0.22	12.5 x 11.5 x 6.0	0.9	PCMT 362DL4224
0.33	12.5 x 12.0 x 7.0	-	PCMT 362DL4334
0.47	12.5 x 14.9 x 6.6	1.5	PCMT 362DL4474
0.68	12.5 x 16.1 x 7.8	1.9	PCMT 362DL4684
1.0	12.5 x 17.8 x 9.4	2.4	PCMT 362DL4105
Pitch = $15.0 \pm 0.8 \text{ mm}$		dt = $0.8 + 0.08 / -0.05 \text{ mm}$	
0.47	18.0 x 11.9 x 6.7	1.7	PCMT 362FL4474
0.68	18.0 x 15.0 x 6.7	2.2	PCMT 362FL4684
1.0	18.0 x 16.0 x 7.5	2.7	PCMT 362FL4105

**Metallized Polyester film capacitors****MOUNTING****NORMAL USE**

The capacitors are designed for mounting on printed-circuit boards. The capacitors packed in bandoliers are designed for mounting on printed-circuit boards by means of automatic insertion machines.

**SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK**

- . For pitches of 15 mm the capacitors shall be mechanically fixed by the leads
- . For larger pitches the capacitors shall be mounted in the same way and the body clamped.

**STORAGE TEMPERATURE**

- . Storage temperature :  $T_{stg} = -25$  to  $+40$  °C with RH maximum 80% without condensation.

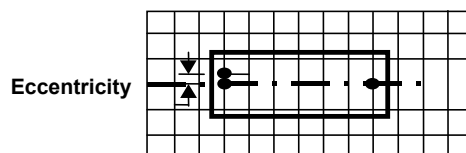
**RATINGS AND CHARACTERISTICS**

Unless otherwise specified all electrical values apply at an ambient temperature of  $23 \pm 5$  °C, an atmospheric pressure of 86 to 106kPa and a relative humidity of  $50 \pm 20$ %.

For reference testing a conditioning period shall be applied of  $96 \pm 4$  hours by heating the products in a circulating air oven at the rated temperature and a relative humidity not exceeding 20%.

**ECCENTRICITY REQUIREMENTS ON PRINTED-CIRCUIT BOARD**

- Eccentricity as in drawing.



- . The maximum eccentricity is smaller than 0.8mm from center of the product concerned.

## Metallized Polyester film capacitors

**CHARACTERISTICS**● **Test voltage** ( Cut-off current 10mA ). Test Voltage (between leads) :  $1.6 \times V_{Rdc}$  for 1min.

$$1.75 \times V_{Rdc} \text{ for 5s.}$$

. Test Voltage (between lead to case ) :  $2.0 \times V_{Rdc}$  for 5s.● **Capacitance**

. Capacitance : Within specified tolerance range when sine wave AC is applied

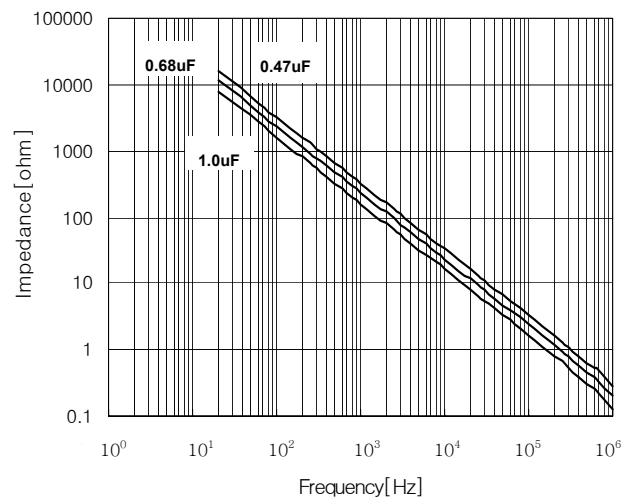
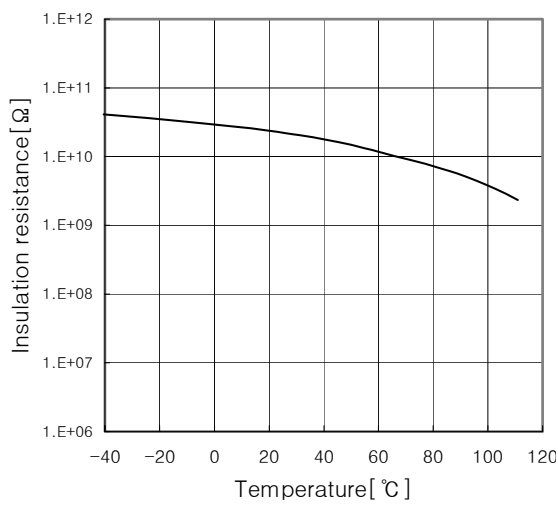
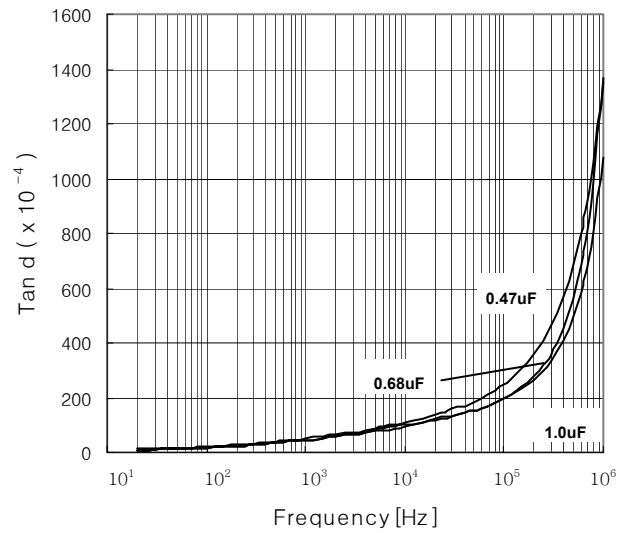
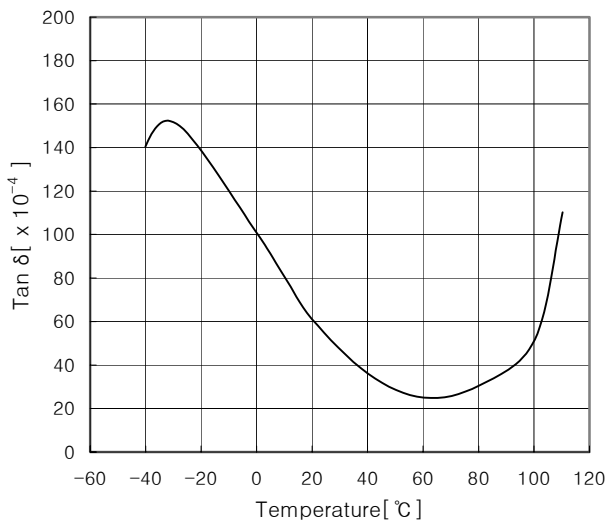
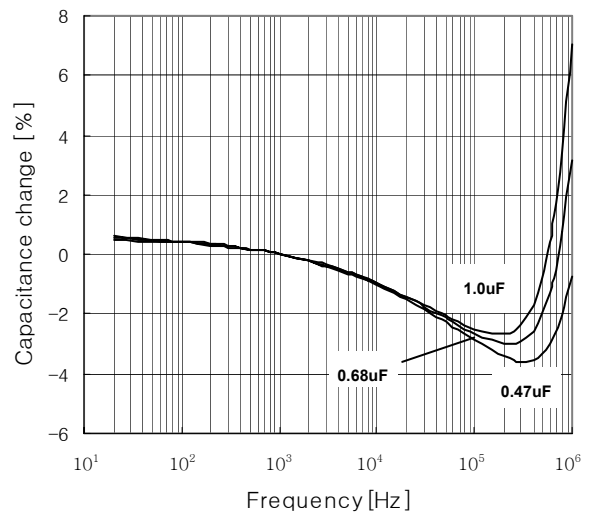
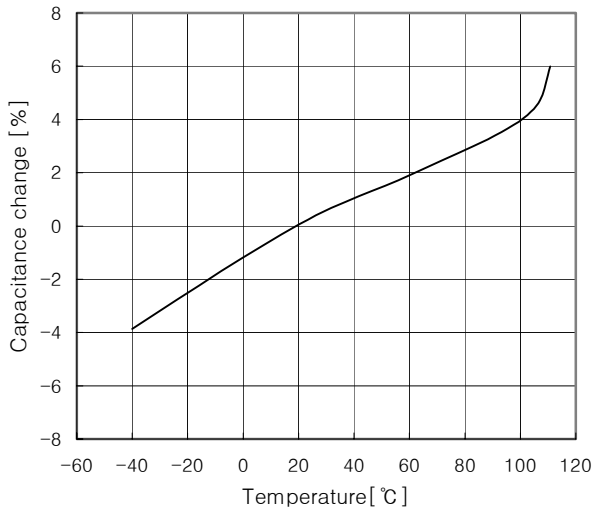
at 1kHz  $\pm 200$ Hz and  $5V_{rms}$ ● **Dissipation factor(DF)**. Dissipation factor: when sine wave AC is applied at 1kHz, 10kHz and  $\leq 1 V_{rms}$ ,

Rated voltage	Capacitance	Tangent of loss angle ( $\times 10^{-4}$ )	
	1kHz	1kHz	10kHz
450 V (P=10.0mm)	$0.18\mu F \sim 1.0\mu F$	$\leq 75$	$\leq 160$
450V (P=15.0mm)	$0.47\mu F \sim 1.0\mu F$	$\leq 80$	$\leq 170$

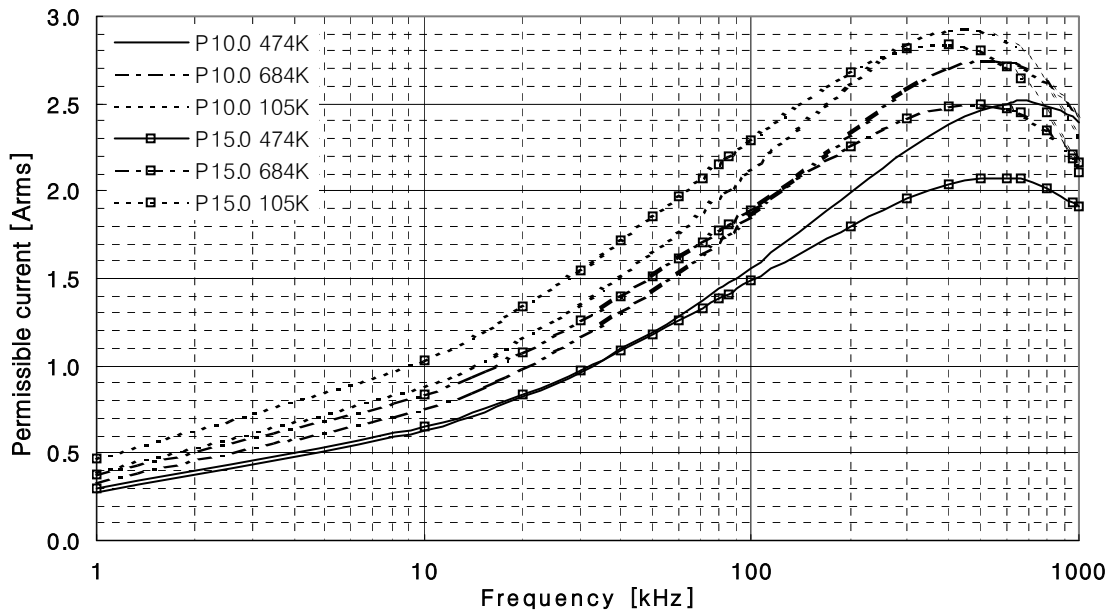
● **Insulation resistance**. The insulation resistance is measured for 1min.  $\pm 5$ s, at 100V for  $V_{Rdc} < 500$ VMinimum RC product  $> 7,500$ s when  $C > 0.33\mu F$ Minimum R  $> 20,000M\Omega$  when  $C \leq 0.33\mu F$ (R = insulation resistance between the terminations[ $\Omega$ ], C= capacitance[Farad])● **Rated voltage pulse load slope(dV/dt)<sub>R</sub>**. For values see specific reference data. IF the pulse voltage is lower than the rated voltage, the values of the specific reference data must be multiplied by  $V_{Rdc}$  and divided by the applied voltage

Rated voltage	MAXIMUM RATED VOLTAGE PULSE SLOPE (V/ $\mu$ S)	
	$l_{max} = 12.5$ mm	$l_{max} = 18.0$ mm
450 V	200	150

**THE GRAPHS OF CHARACTERISTICS**



**Characteristics of permissible current [Arms] to frequency [kHz] ( at Tamb. ≤ 85°C )**



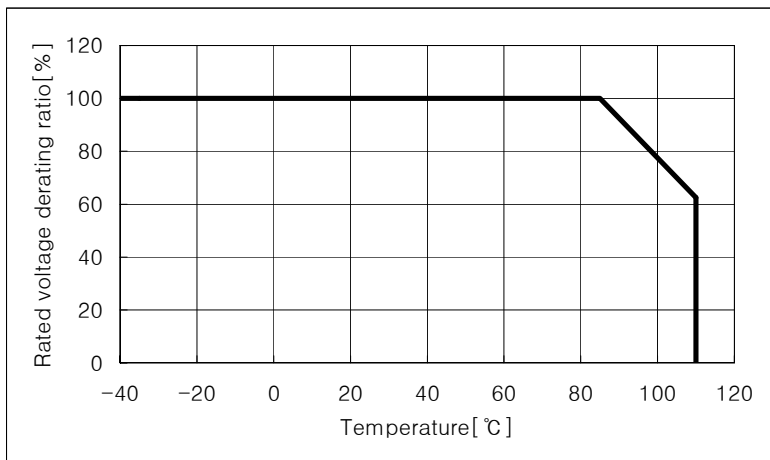
● **Permissible current to temperature**

When operating in the range of Tamb. (85°C ~ 110°C) with waveform, the value for characteristic of permissible current to frequency shown in Fig. shall be derated 1.5% at each 1°C.

● **Self heating temperature**

. Maximum allowable rise is 7°C under 85°C.

● **Maximum permissible continuous voltage vs temperature [°C]**



The rated voltage should be derated 1.5% at each 1°C in the range of +85°C ~ +110°C for liability as shown in the Fig. above.

**PRODUCT MARKING**

The capacitors are marked on the side in black ink with the following informations :

- . Rated capacitance in code according to IEC 60062(474)
- . Tolerance on rated capacitance(K :  $\pm 10\%$ )
- . Rated DC voltage(450)
- . Manufacturer's type designation(P362)
- . Code for dielectric material( MKT )
- . Batch number code (1343072)

**Example of marking**

474 K 450
P362 MKT
1343072