

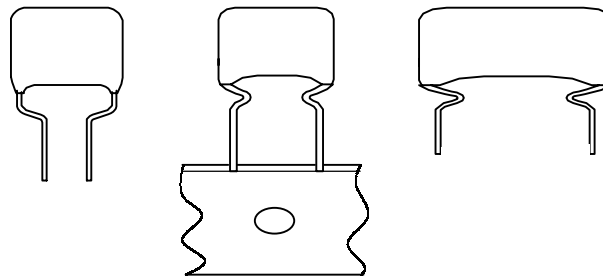
AC and Pulse Double Side Metallized Polypropylene film capacitors

PCMP 483

MMKP RADIAL LACQUERED CAPACITORS (Dipped Type)

Pitch 10.0/15.0 mm
(Reduced pitch 7.5mm)

NEW



QUICK REFERENCE DATA

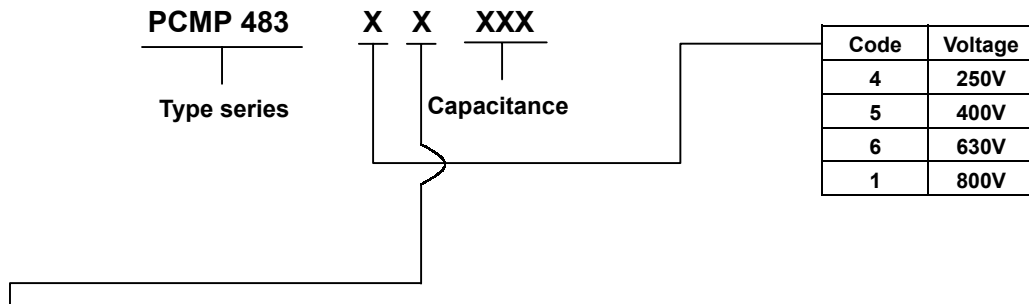
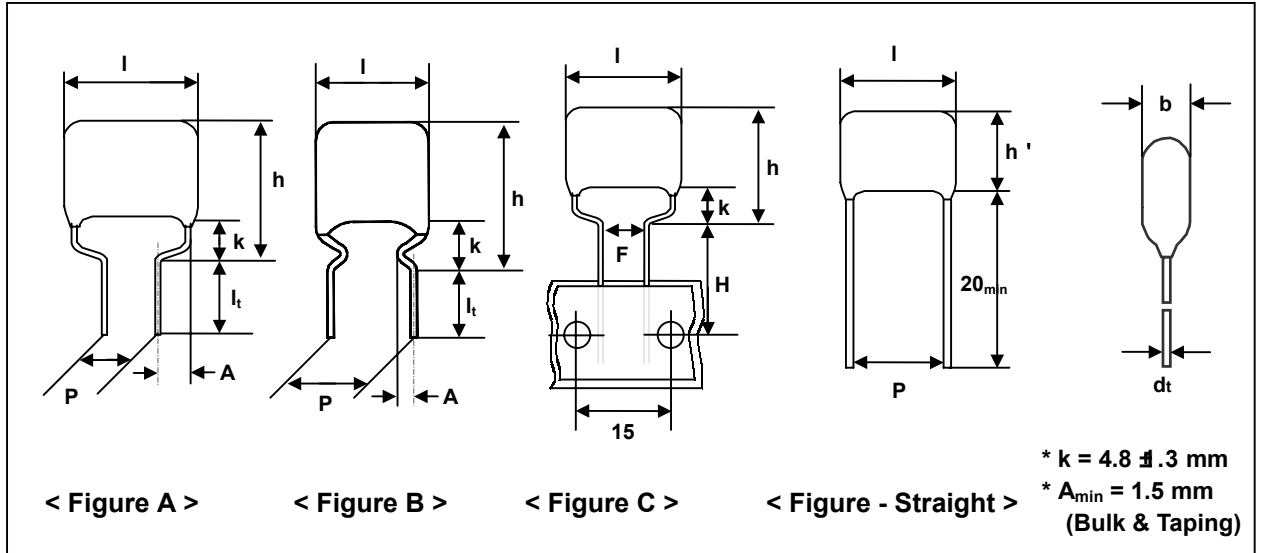
Capacitance range (E24 series)	0.001 to 0.39 μ F
Capacitance tolerance	\pm 5%
Rated voltage (DC)	250 V, 400 V, 630 V, 800 V
Rated voltage (AC)	125 V, 200 V, 220 V, 400 V
Climatic category	55/105/56
Rated temperature	85 °C
Reference specification	IEC 60384-17

<h3>FEATURES</h3> <ul style="list-style-type: none"> . 7.5 mm to 15 mm lead pitch . Cell protected by epoxy lacquer . Low loss dielectric . Low contact resistance . Supplied loose in box, in ammopack and taped on reel 	<h3>APPLICATIONS</h3> <ul style="list-style-type: none"> . Where high current and steep pulses occur e.g. SMPS (Switching Mode Power Supply) . Electronic ballast, Motor control . TV set and Monitor application
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Ordering Information



Available versions						Product (l_{max})	
Code	Packing method	C-tol.	Lead Figure	Lead length & Height	Hole to hole (P_o)	12.5	18.0
						Pitch (P)	
3	Loose in box	$\pm 5\%$	B	$l_t = 3.5 \pm 0.5 \text{ mm}$	-	10.0	15.0
4	Loose in box	$\pm 5\%$	B	$l_t = 5.0 \pm 1.0 \text{ mm}$	-	10.0	15.0
5	Loose in box	$\pm 5\%$	B	$l_t = 4.5 \pm 0.5 \text{ mm}$	-	10.0	15.0
1	Loose in box	$\pm 5\%$	Straight	$l_t = 20 \text{ mm (min)}$	-	10.0	15.0
G	Loose in box	$\pm 5\%$	A	$l_t = 4.5 \pm 0.5 \text{ mm}$	-	7.5(*)	7.5(*)
6	Ammopack	$\pm 5\%$	D(**)	H=16.0mm	12.7mm	10.0	15.0
Q	Ammopack	$\pm 5\%$	C	H=16.0mm	15.0mm	7.5(*)	7.5(*)
L	Taped on reel	$\pm 5\%$	D(**)	H=16.0mm	12.7mm	10.0	15.0
N	Taped on reel	$\pm 5\%$	C	H=16.0mm	15.0mm	7.5(*)	7.5(*)

* Reduced pitch (Reduced lead spacings)

** Lead figure D: Taping type of Lead figure B

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Packaging Information

SMALLEST PACKING QUANTITIES (SPQ)	LOOSE IN BOX
DIMENSIONS	It = 5.0 ±1.0mm
5.0 x 15.5 x 12.5	1000
5.5 x 16.0 x 12.5	1000
6.0 x 16.5 x 12.5	1000
6.5 x 17.0 x 12.5	1000
7.0 x 17.5 x 12.5	1000
5.0 x 15.5 x 18.0	1000
5.5 x 16.0 x 18.0	1000
6.0 x 16.0 x 18.0	1000
6.0 x 16.5 x 18.0	1000
6.5 x 17.0 x 18.0	1000
7.0 x 17.5 x 18.0	1000
7.5 x 18.0 x 18.0	1000
8.0 x 18.5 x 18.0	1000
8.5 x 19.0 x 18.0	1000
9.0 x 19.5 x 18.0	1000
9.5 x 20.0 x 18.0	1000
10.0 x 20.5 x 18.0	1000
10.5 x 21.0 x 18.0	1000
11.0 x 21.5 x 18.0	1000

AC and Pulse Double Side Metallized Polypropylene film capacitors

PCMP 483

 $V_{Rdc} = 250 V$ $V_{Rac} = 125 V$

Cap. (μF)	$b_{max} \times h_{max} \times l_{max}$ (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMP 483	
			loose in box	Ammopack
			It= 4.5 \pm 0.5 mm	Reduced pitch(7.5mm)
			C - tol. \pm 5%	C - tol. \pm 5%
Pitch = 10 \pm 0.4 mm		dt = 0.6+0.06/-0.05 mm		
0.033 0.036 0.039 0.043	5.5 x 16.0 x 12.5		PCMP 483 45333 PCMP 483 45363 PCMP 483 45393 PCMP 483 45433	PCMP 483 4Q333 PCMP 483 4Q363 PCMP 483 4Q393 PCMP 483 4Q433
0.047 0.051 0.056	6.0 x 16.5 x 12.5		PCMP 483 45473 PCMP 483 45513 PCMP 483 45563	PCMP 483 4Q473 PCMP 483 4Q513 PCMP 483 4Q563
0.062 0.068	6.5 x 17.0 x 12.5		PCMP 483 45623 -	PCMP 483 4Q623 -
Pitch = 15.0 \pm 0.4 mm		dt = 0.8 + 0.08 / -0.05 mm		
0.068 0.082 0.091 0.1	6.0 x 16.5 x 18.0		PCMP 483 45683 PCMP 483 45823 PCMP 483 45913 PCMP 483 45104	PCMP 483 4Q683 PCMP 483 4Q823 PCMP 483 4Q913 PCMP 483 4Q104
0.11 0.12 0.13	6.5 x 17.0 x 18.0		PCMP 483 45114 PCMP 483 45124 PCMP 483 45134	PCMP 483 4Q114 PCMP 483 4Q124 PCMP 483 4Q134
0.15 0.16	7.0 x 17.5 x 18.0		PCMP 483 45154 PCMP 483 45164	PCMP 483 4Q154 PCMP 483 4Q164
0.18	7.5 x 18.0 x 18.0		PCMP 483 45184	PCMP 483 4Q184
0.2 0.22	8.0 x 18.5 x 18.0		PCMP 483 45204 PCMP 483 45224	PCMP 483 4Q204 PCMP 483 4Q224
0.24	8.5 x 19.0 x 18.0		PCMP 483 45244	PCMP 483 4Q244
0.27	9.0 x 19.5 x 18.0		PCMP 483 45274	PCMP 483 4Q274
0.3	9.5 x 20.0 x 18.0		PCMP 483 45304	PCMP 483 4Q304
0.33 0.36	10.0 x 20.5 x 18.0		PCMP 483 45334 PCMP 483 45364	PCMP 483 4Q334 PCMP 483 4Q364
0.39	10.5 x 21.0 x 18.0		PCMP 483 45394	PCMP 483 4Q394

AC and Pulse Double Side Metallized Polypropylene film capacitors

PCMP 483 $V_{Rdc} = 400 V$ $V_{Rac} = 200 V$

Cap. (μF)	$b_{max} \times h_{max} \times l_{max}$ (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMP 483	
			loose in box	Ammopack
			It= 4.5 \pm 0.5 mm	Reduced pitch(7.5mm)
C - tol. \pm 5%		C - tol. \pm 5%		
Pitch = 10.0 \pm 0.4 mm		dt = 0.6 + 0.06 / -0.05 mm		
0.015 0.016 0.018 0.02 0.022 0.024	5.5 x 16.0 x 12.5		PCMP 483 55153 PCMP 483 55163 PCMP 483 55183 PCMP 483 55203 PCMP 483 55223 PCMP 483 55243	PCMP 483 5Q153 PCMP 483 5Q163 PCMP 483 5Q183 PCMP 483 5Q203 PCMP 483 5Q223 PCMP 483 5Q243
0.027 0.03	6.0 x 16.5 x 12.5		PCMP 483 55273 PCMP 483 55303	PCMP 483 5Q273 PCMP 483 5Q303
0.033 0.036 0.039	6.5 x 17.0 x 12.5		PCMP 483 55333 PCMP 483 55363 -	PCMP 483 5Q333 PCMP 483 5Q363 -
0.043 0.047	7.0 x 17.5 x 12.5		- -	- -
Pitch = 15.0 \pm 0.4 mm		dt = 0.8 + 0.08 / -0.05 mm		
0.039 0.043	6.0 x 16.0 x 18.0		PCMP 483 55393 PCMP 483 55433	PCMP 483 5Q393 PCMP 483 5Q433
0.047 0.051 0.056	6.0 x 16.5 x 18.0		PCMP 483 55473 PCMP 483 55513 PCMP 483 55563	PCMP 483 5Q473 PCMP 483 5Q513 PCMP 483 5Q563
0.062 0.068	6.5 x 17.0 x 18.0		PCMP 483 55623 PCMP 483 55683	PCMP 483 5Q623 PCMP 483 5Q683
0.075 0.082	7.0 x 17.5 x 18.0		PCMP 483 55753 PCMP 483 55823	PCMP 483 5Q753 PCMP 483 5Q823
0.091 0.1	7.5 x 18.0 x 18.0		PCMP 483 55913 PCMP 483 55104	PCMP 483 5Q913 PCMP 483 5Q104
0.11	8.0 x 18.5 x 18.0		PCMP 483 55114	PCMP 483 5Q114
0.12 0.13	8.5 x 19.0 x 18.0		PCMP 483 55124 PCMP 483 55134	PCMP 483 5Q124 PCMP 483 5Q134
0.15	9.0 x 19.5 x 18.0		PCMP 483 55154	PCMP 483 5Q154
0.16	9.5 x 20.0 x 18.0		PCMP 483 55164	PCMP 483 5Q164
0.18	10.0 x 20.5 x 18.0		PCMP 483 55184	PCMP 483 5Q184
0.2 0.22	10.5 x 21.0 x 18.0		PCMP 483 55204 PCMP 483 55224	PCMP 483 5Q204 PCMP 483 5Q224

AC and Pulse Double Side Metallized Polypropylene film capacitors

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 $V_{Rdc} = 630 V$ $V_{Rac} = 220 V$

Cap. (μF)	$b_{max} \times h_{max} \times l_{max}$ (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMP 483	
			loose in box	Ammopack
			lt= 4.5 ± 0.5 mm	Reduced pitch(7.5mm)
			C - tol. $\pm 5\%$	C - tol. $\pm 5\%$
Pitch = 10.0 ± 0.4 mm			dt = 0.6+0.06/-0.05 mm	
0.0062 0.0068 0.0075	5.5 x 16.0 x 12.5		PCMP 483 65622 PCMP 483 65682 PCMP 483 65752	PCMP 483 6Q622 PCMP 483 6Q682 PCMP 483 6Q752
0.0082 0.0091	6.0 x 16.5 x 12.5		PCMP 483 65822 PCMP 483 65912	PCMP 483 6Q822 PCMP 483 6Q912
0.01	6.5 x 17.0 x 12.5		-	-
Pitch = 15.0 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.01 0.011 0.012 0.013 0.015 0.016 0.018 0.02 0.022 0.024 0.027 0.03 0.033	6.0 x 16.5 x 18.0		PCMP 483 65103 PCMP 483 65113 PCMP 483 65123 PCMP 483 65133 PCMP 483 65153 PCMP 483 65163 PCMP 483 65183 PCMP 483 65203 PCMP 483 65223 PCMP 483 65243 PCMP 483 65273 PCMP 483 65303 PCMP 483 65333	PCMP 483 6Q103 PCMP 483 6Q113 PCMP 483 6Q123 PCMP 483 6Q133 PCMP 483 6Q153 PCMP 483 6Q163 PCMP 483 6Q183 PCMP 483 6Q203 PCMP 483 6Q223 PCMP 483 6Q243 PCMP 483 6Q273 PCMP 483 6Q303 PCMP 483 6Q333
0.036 0.039 0.043	6.5 x 17.0 x 18.0		PCMP 483 65363 PCMP 483 65393 PCMP 483 65433	PCMP 483 6Q363 PCMP 483 6Q393 PCMP 483 6Q433
0.047 0.051	7.0 x 17.5 x 18.0		PCMP 483 65473 PCMP 483 65513	PCMP 483 6Q473 PCMP 483 6Q513
0.056 0.062	7.5 x 18.0 x 18.0		PCMP 483 65563 PCMP 483 65623	PCMP 483 6Q563 PCMP 483 6Q623
0.068 0.075	8.0 x 18.5 x 18.0		PCMP 483 65683 PCMP 483 65753	PCMP 483 6Q683 PCMP 483 6Q753
0.082	8.5 x 19.0 x 18.0		PCMP 483 65823	PCMP 483 6Q823
0.091	9.0 x 19.5 x 18.0		PCMP 483 65913	PCMP 483 6Q913
0.1 0.11	9.5 x 20.0 x 18.0		PCMP 483 65104 PCMP 483 65114	PCMP 483 6Q104 PCMP 483 6Q114
0.12	10.0 x 20.5 x 18.0		PCMP 483 65124	PCMP 483 6Q124
0.13	10.5 x 21.0 x 18.0		PCMP 483 65134	PCMP 483 6Q134
0.15	11.0 x 21.5 x 18.0		PCMP 483 65154	PCMP 483 6Q154

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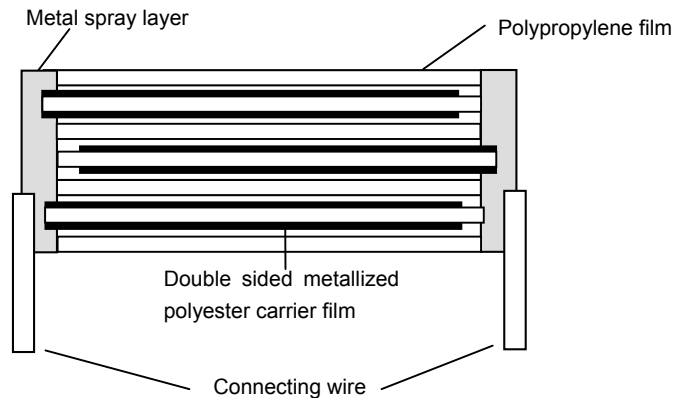
PCMP 483

 $V_{Rdc} = 800 V$ $V_{Rac} = 400 V$

Cap. (μF)	$b_{max} \times h_{max} \times l_{max}$ (mm)	Mass (g)	CATALOGUE NUMBER			
			PCMP 483			
			loose in box	Ammopack		
			It= 4.5 \pm 0.5 mm	Reduced pitch(7.5mm)		
			C – tol. \pm 5%	C – tol. \pm 5%		
Pitch = 10.0 \pm 0.4 mm			dt = 0.6+0.06/-0.05 mm			
0.001	5.5 x 16.0 x 12.5		PCMP 483 15102	PCMP 483 1Q102		
0.0011			PCMP 483 15112	PCMP 483 1Q112		
0.0012			PCMP 483 15122	PCMP 483 1Q122		
0.0013			PCMP 483 15132	PCMP 483 1Q132		
0.0015			PCMP 483 15152	PCMP 483 1Q152		
0.0016			PCMP 483 15162	PCMP 483 1Q162		
0.0018			PCMP 483 15182	PCMP 483 1Q182		
0.002			PCMP 483 15202	PCMP 483 1Q202		
0.0022			PCMP 483 15222	PCMP 483 1Q222		
0.0024			PCMP 483 15242	PCMP 483 1Q242		
0.0027			PCMP 483 15272	PCMP 483 1Q272		
0.003			PCMP 483 15302	PCMP 483 1Q302		
0.0033			PCMP 483 15332	PCMP 483 1Q332		
0.0036			PCMP 483 15362	PCMP 483 1Q362		
0.0039			PCMP 483 15392	PCMP 483 1Q392		
0.0043			6.0 x 16.5 x 12.5		PCMP 483 15432	PCMP 483 1Q432
0.0047					PCMP 483 15472	PCMP 483 1Q472
0.0051	6.5 x 17.0 x 12.5		PCMP 483 15512	PCMP 483 1Q512		
0.0056			PCMP 483 15562	PCMP 483 1Q562		

AC and Pulse Double Side Metallized Polypropylene film capacitors

CONSTRUCTION



Description ;

- . Low-inductive wound cell of double sided metallized polyester carrier film and polypropylene(PP) film.
- . Protected by a hard, water repellent, solvent resistant epoxy lacquer.
- . Radial leads, tin-coated.

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 ± 1 °C, an atmospheric pressure of 86 to 106 kPa and a relative humidity of 50 ± 2 %.

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

AC and Pulse Double Side Metallized Polypropylene film capacitors

PCMP 483

CHARACTERISTICS

- **Test Voltage**

- . Test Voltage (between leads) : $1.6 \times V_{Rdc}$, 1 min or $1.75 \times V_{Rdc}$, 5s
(cut off current 10mA, rise time 100V/s)
- . Test Voltage (between leads and case) : $2840V_{dc}$, 1min

- **Dissipation Factor**

Rated Voltage	Capacitance	DF (X 10 ⁻⁴)	
		10 KHz	100 KHz
250 V	$C \leq 0.068 \mu F$	≤ 5	≤ 10
	$0.068 \mu F < C \leq 0.15 \mu F$	≤ 5	≤ 20
	$0.15 \mu F < C \leq 0.39 \mu F$	≤ 5	≤ 25
400 V	$C \leq 0.047 \mu F$	≤ 5	≤ 15
	$0.047 \mu F < C \leq 0.22 \mu F$	≤ 5	≤ 20
630 V	$C \leq 0.01 \mu F$	≤ 5	≤ 10
	$0.01 \mu F < C \leq 0.15 \mu F$	≤ 5	≤ 15
800 V	$C \leq 0.0056 \mu F$	≤ 5	≤ 10

- **Insulation Resistance**

The insulation resistance is measured for 1min $\pm 5s$, at 100V for $V_{Rdc} < 630V$, at 500V for $V_{Rdc} \geq 630V$

R between leads ; $> 100\ 000\ M\Omega$

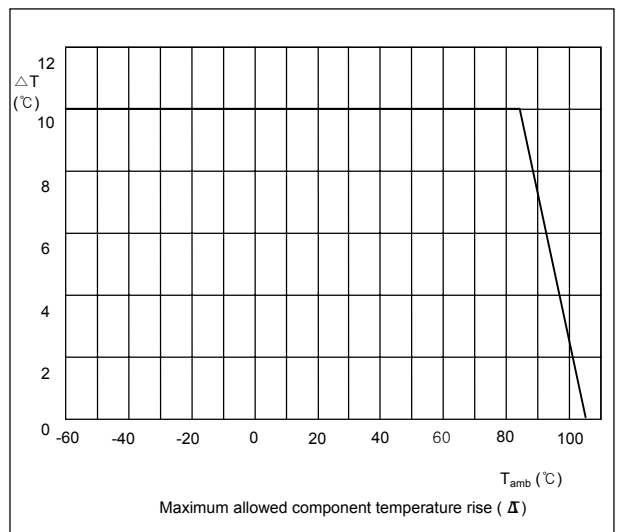
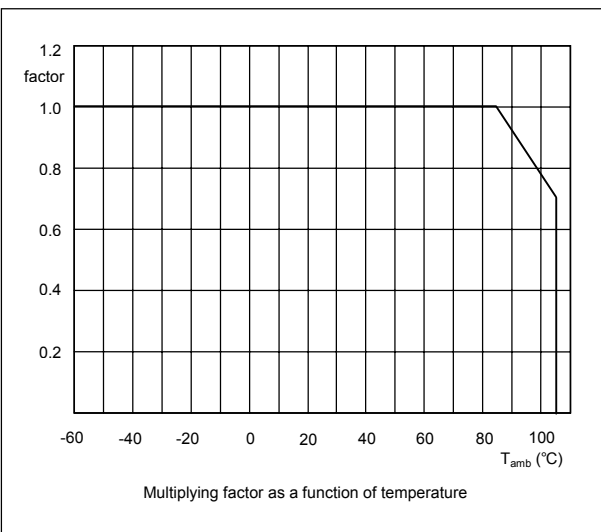
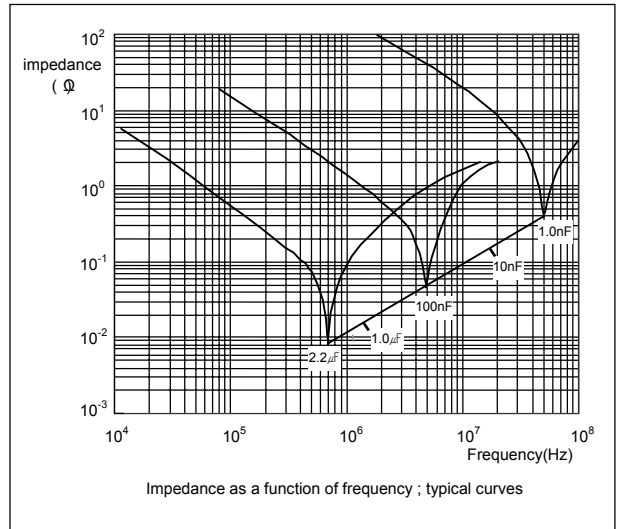
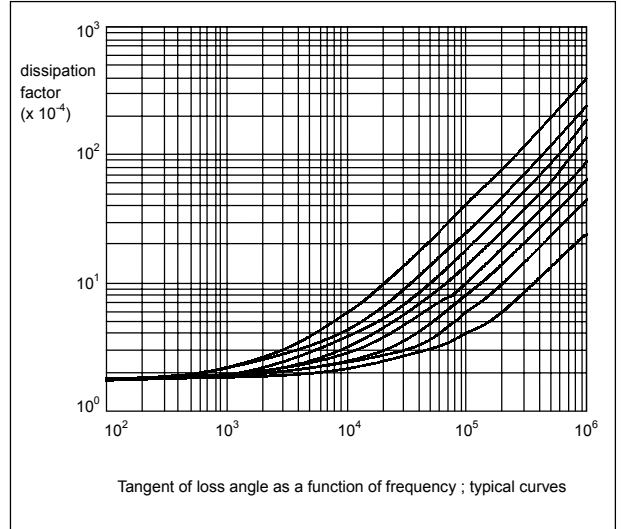
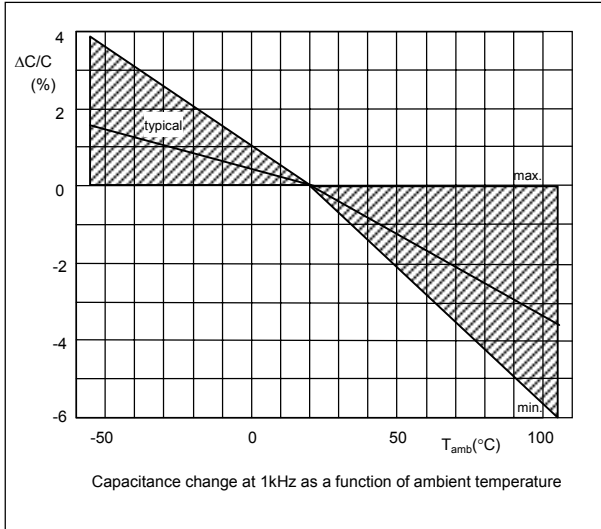
- **Rated Voltage Pulse Load Slope (dV/dt)_R**

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	Rated voltage pulse slope(V/ μs)	
	lmax=12.5mm	lmax=18.0mm
250 V	1000	550
400 V	1200	700
630 V	1400	900
800 V	2800	1800

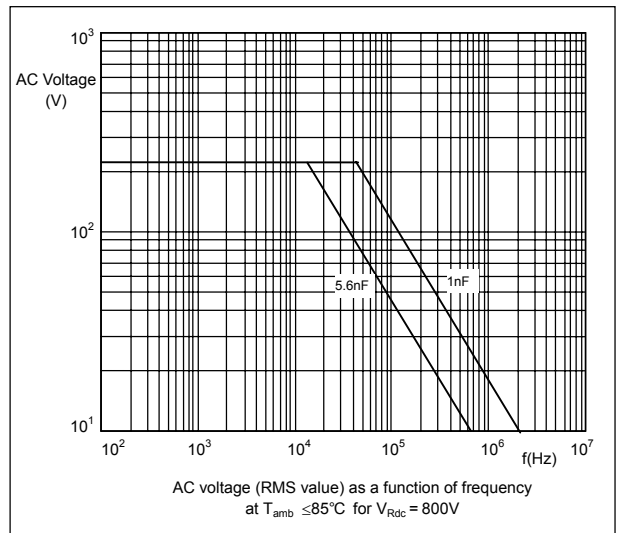
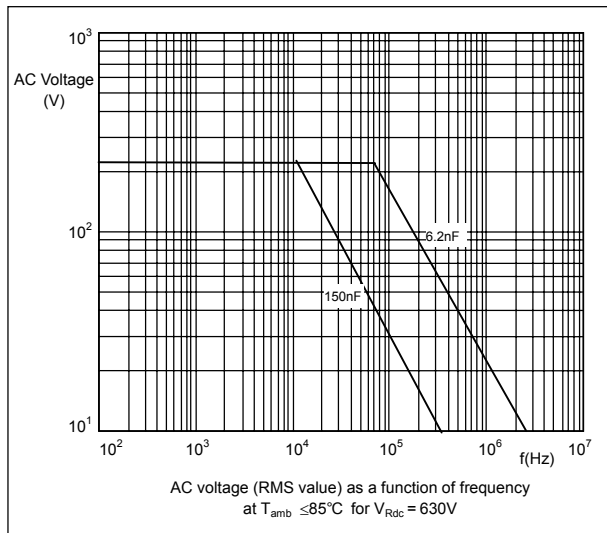
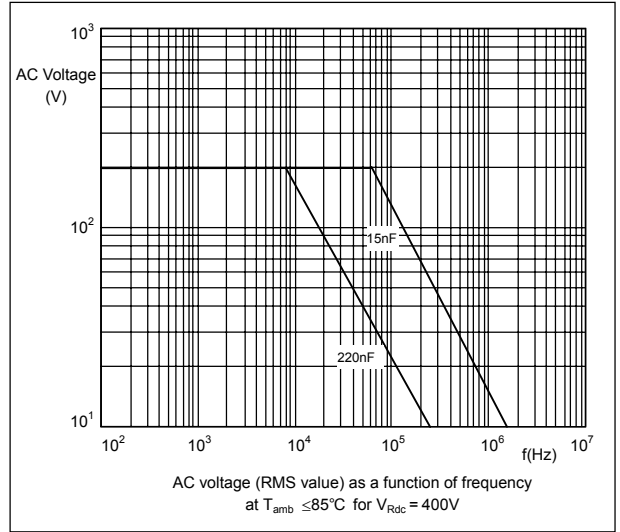
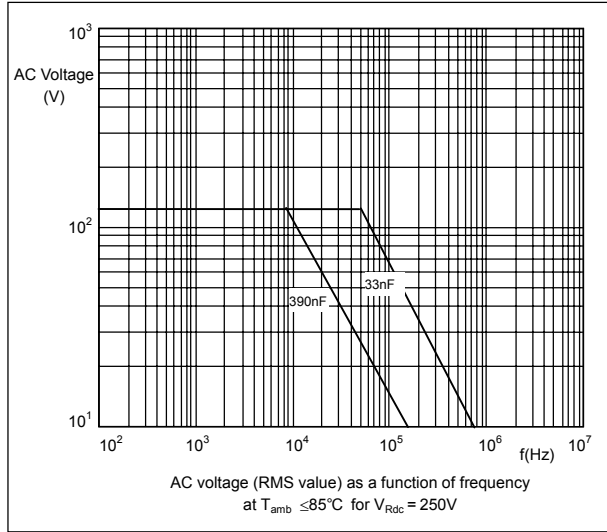
AC and Pulse Double Side Metallized Polypropylene film capacitors

THE GRAPHS OF CHARACTERISTICS



AC and Pulse Double Side Metallized Polypropylene film capacitors

MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY



AC and Pulse Double Side Metallized Polypropylene film capacitors

APPLICATION NOTE AND LIMITING CONDITIONS

These capacitors are not suitable for mains application as across-the-line capacitors without additional protection.

To select the capacitor for a certain application, the following conditions must be checked :

1. The peak voltage (V_p) shall not be greater than the rated DC voltage (V_{Rdc}).
2. The peak-to-peak voltage (V_{p-p}) shall not be greater than the maximum V_{p-p} to avoid the ionisation inception level.
3. The voltage pulse slope (dV/dt) shall not exceed the rated voltage pulse slope in an RC-circuit at rated voltage and without ringing. If the pulse voltage is lower than the rated DC voltage, the rated voltage pulse slope may be multiplied by V_{Rdc} and divided by the applied voltage.

For all other pulses following equation must be fulfilled :

$$2 \times \int_0^T \left(\frac{dU}{dt} \right) \times dt < U_{Rdc} \times \left(\frac{dU}{dt} \right)_{rated}$$

T is the pulse duration.

4. The maximum component surface temperature rise must be lower than the limits.

Voltage conditions for aboves.

ALLOWED VOLTAGES	$T_{amb} \leq 85^{\circ}C$	$85^{\circ}C < T_{amb} \leq 105^{\circ}C$
Maximum continuous RMS voltage	V_{Rac}	$0.75 \times V_{Rac}$
Maximum temporary RMS overvoltage (<24 hrs)	$1.25 \times V_{Rac}$	$1.0 \times V_{Rac}$
Maximum peak voltage (V_{o-p}) (<2s)	$1.6 \times V_{Rdc}$	$1.1 \times V_{Rdc}$

AC and Pulse Double Side Metallized Polypropylene film capacitors

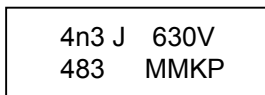
PRODUCT MARKING

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

- . Rated capacitance in code according to IEC 60062
- . Tolerance on rated capacitance J : $\pm 5\%$
- . Rated DC voltage (e.g. 630 V)
- . Manufacturer's type designation (483)
- . Code for dielectric material (MMKP)

Example of marking

$l_{\max} \geq 12.5\text{mm}$



Marking on the side