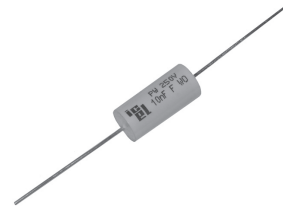


PW

Polypropylene film capacitor

KP - High pulse - Precision



Main applications

Blocking, bypassing, timing, LC/RC filters, high frequency coupling and decoupling, thermal compensation for ferrites

Dielectric

Polypropylene

Electrodes

Metal foils

Coating

UL 510 / CSA TIL I-26 polyester tape wrapping; UL 94V-0 resin end fill (flame retardant execution)

Construction

Extended foil (refer to general technical information)

Terminals

Tinned copper wire (lead free)

Reference standard

IEC 60384/13, IEC 60068, RoHS compliant

Climatic category

55/100/56 (IEC 60068/1), FMD (DIN 40040)

Operating temperature range

-55°...+105°C

Rated capacitance (Cr)

100pF to 0,022µF, In compliance with IEC 60063, E6 series. Refer to article table

Capacitance tolerance (at 1kHz)

±10% (code=K), ±5% (code=J), ±20% (code=M). Other tolerances up to ±1% (code=F) upon request

Capacitance temperature coefficient

Refer to graphs in general technical information; -250 (±120) p.p.m./°C (typical value)

Long term stability (at 1 kHz)

Capacitance variation ≤ ±0,5% after a period of 2 years at standard environmental conditions

Rated voltage (Ur)

160, 250, 400 Vdc
(permissible AC voltage at 60Hz: 90, 125, 160Vac)

Category voltage (Uc)

Uc=Ur at +85°C; Uc=0,8xUr at +100°C

Temperature derated voltage

For T > +85°C, Ur must be decreased 1,25% for every °C exceeding +85°C

Self inductance

≤ 1nH/mm of capacitor and leads length used for connection

Maximum pulse rise time

Refer to article table. The pulse characteristic Ko depends on the voltage waveform. In any case the value given in the article table must not be exceeded

Dissipation factor (DF), max.

tgδ x10⁻⁴, measured at 25±5°C

Freq.	Cr ≤ 1000pF	Cr > 1000pF
10kHz	-	5
100kHz	10	-

Insulation resistance (IR)

When measured between terminals, at 25±°C, after 1 minute of electrification at 100Vdc : IR ≥ 100GΩ

Test voltage between terminals (Ut)

2,0 xUr (DC) applied for 2s at 25±5°C (1 minute for type test)

Damp heat test (steady state)

Test conditions:
Temperature= +40±2°C
Relative humidity=93±2%
Test duration= 56 days

Performance:

Capacitance change ≤ ±2%
DF change ≤ 0.0005 at 10kHz
IR≥ 50% of initial limit value

Endurance test

Test conditions:
Temperature= +85±2°C
Test duration= 1000h
Voltage applied=1,5xUr(DC)

Performance:

Capacitance change ≤ ±1%
DF change ≤ 0.0005 at 10kHz
IR≥ 50% of initial limit value

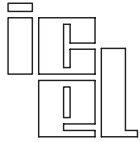
Resistance to soldering heat test

Test conditions:
Solder bath temperature= +260±5°C
Dipping time (with heat screen)= 10±1s

Performance:

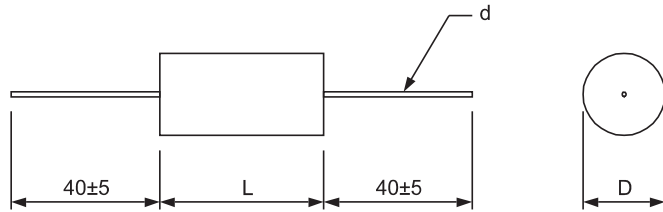
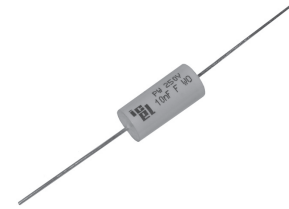
Capacitance change ≤ ±1%
DF change ≤ 0.0005 at 1kHz
IR≥ 50% of initial limit value

Warning: this specification must be completed with the data given in the "General technical information" chapter



PW

Polypropylene film capacitor KP - High pulse - Precision



Dimensional tolerances (mm)

L	L±	D±
10,5	1,0	1,0
13,0	1,5	1,0

PW article table (different values available upon request)

Rated voltage		Cap. value (µF)	Dimension in mm			du/dt V/µs	Ko V²/µs	ICEL ordering code ⁽¹⁾
Vdc	Vac		D	L	d			
160	90	0,0033	5	10,5	0,6	2500	800E03	PW_1161330*A
160	90	0,0047	5,5	10,5	0,6	2500	800E03	PW_1161470*A
160	90	0,0068	6	10,5	0,6	2500	800E03	PW_1161680*A
160	90	0,01	6	13	0,6	2200	704E03	PW_1162100*B
160	90	0,015	6,5	13	0,6	2200	704E03	PW_1162150*B
160	90	0,022	7,5	13	0,8	2200	704E03	PW_1162220*B
250	125	0,0015	4,5	10,5	0,6	5000	250E04	PW_1251150*A
250	125	0,0022	5	10,5	0,6	5000	250E04	PW_1251220*A
250	125	0,0033	6	10,5	0,6	5000	250E04	PW_1251330*A
250	125	0,0047	6	13	0,6	4500	225E04	PW_1251470*B
250	125	0,0068	6,5	13	0,6	4500	225E04	PW_1251680*B
250	125	0,01	7,5	13	0,8	4500	225E04	PW_1252100*B
250	125	0,015	8,5	13	0,8	4500	225E04	PW_1252150*B
400	160	0,0001	4,5	10,5	0,6	13000	104E05	PW_1400100*A
400	160	0,00015	4,5	10,5	0,6	13000	104E05	PW_1400150*A
400	160	0,00022	4,5	10,5	0,6	13000	104E05	PW_1400220*A
400	160	0,00033	4,5	10,5	0,6	13000	104E05	PW_1400330*A
400	160	0,00047	4,5	10,5	0,6	13000	104E05	PW_1400470*A
400	160	0,00068	4,5	10,5	0,6	13000	104E05	PW_1400680*A
400	160	0,001	4,5	10,5	0,6	13000	104E05	PW_1401100*A
400	160	0,0015	5	10,5	0,6	13000	104E05	PW_1401150*A
400	160	0,0022	5	13	0,6	6500	520E04	PW_1401220*B
400	160	0,0033	6	13	0,6	6500	520E04	PW_1401330*B
400	160	0,0047	6,5	13	0,6	6500	520E04	PW_1401470*B
400	160	0,0068	7,5	13	0,8	6500	520E04	PW_1401680*B
400	160	0,01	9	13	0,8	6500	520E04	PW_1402100*B

⁽¹⁾Change the * symbol with the needed capacitance tolerance code: F=±1%, G=±2%, H=±2.5%, J=±5%, K=±10%, M=±20%

Permissible AC voltage versus frequency (sinusoidal waveform) for ΔT=+10°C
Referred to the largest length execution among available ones

