



FILM CAPACITORS FOR POWER ELECTRONICS

MKP 1848 DC-Link



Metallized Polypropylene Film Capacitors

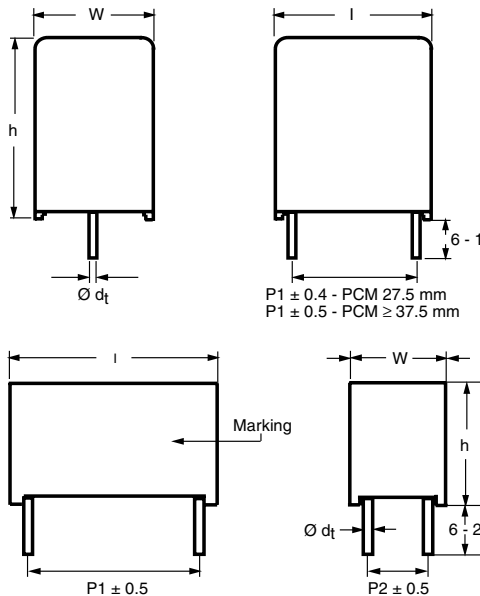
KEY BENEFITS

- Rated capacitance: 1 μF to 400 μF ; 2 or 4 pins for PCB mounting
- Rated capacitance: 500 μF to 6000 μF ; bus bar for direct IGBT mounting (customized)
- DC voltage rating: 450 V_{DC} to 1200 V_{DC} @ 85 °C
- IEC 61071 standard
- Compliant to RoHS directive 2002/95/EC

APPLICATIONS

- Hybrid electric vehicles (HEV)
- Power supplies: UPS, battery chargers
- Power generators: wind energy, solar inverters
- Motor drives: pumps, forklifts
- Welding equipment
- X-ray equipment

Metallized Polypropylene Film Capacitor DC Capacitor MKP Type



Dimensions in millimeters
 $\varnothing d_t \pm 10\%$ of standard diameter specified

APPLICATIONS

High performance DC filtering applications

REFERENCE STANDARDS

IEC 61071
 IEC 60068

MARKING

C-value; tolerance; rated voltage; code for dielectric material; code for manufacturing origin; manufacturer's type designation; manufacturer's logo; year and week of manufacture

DIELECTRIC

Polypropylene film

ELECTRODES

Metallized dielectric capacitor

CONSTRUCTION

Mono construction

ENCAPSULATION

Plastic case, sealed with resin
 Flame retardant

TERMINALS

Tinned wires

FEATURES

Lead (Pb)-free product
 RoHS compliant product

RATED CAPACITANCE

1 μ F to 400 μ F

CAPACITANCE TOLERANCE

$\pm 5\%$

DC VOLTAGE RATING

85 °C	450 V	700 V	900 V	1100 V	1200 V
70 °C	500 V	800 V	1100 V	1350 V	1500 V
105 °C	300 V	500 V	650 V	800 V	850 V

INSULATION RESISTANCE

RC between leads, after 1 min > 10 000 s
 For $U_{Ndc} \leq 500$ V measuring voltage 100 V
 For $U_{Ndc} > 500$ V measuring voltage 500 V

SELF INDUCTANCE (L_s)

< 1 nH per mm of lead spacing

TEST VOLTAGE BETWEEN TERMINALS

1.5 U_{Ndc} for 10 s

CLIMATIC TESTING CLASS

40/85/56

MAXIMUM APPLICATION TEMPERATURE

85 °C

MAXIMUM OPERATING TEMPERATURE (CASE)

105 °C

LIFETIME EXPECTANCY

Operation life time > 100 000 h
 FIT: < 10×10^{-9} /h (10 per 10^9 component h) at $0.5 \times U_{Ndc}$;
 40 °C

DETAIL SPECIFICATION

For more detailed data and test requirements, contact:
dc-film@vishay.com



**RoHS
COMPLIANT**