

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

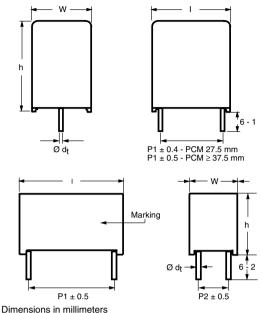
APPLICATIONS

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



Vishay Roederstein

Metallized Polypropylene Film Capacitor DC Capacitor MKP Type



Ø d_t ± 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 μF to 400 μF

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CAPACITANCE TOLERANCE

+ 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 $U_{Ndc} \le 500$ V measuring voltage 100 V For $U_{Ndc} > 500$ V measuring voltage 500 V

SELF INDUCTANCE (Ls)

< 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 x 10^{-9} /h (10 per 10^9 component h) at 0.5 x U_{Ndc} ; 40° C:

DETAIL SPECIFICATION

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

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