

Metallized Polypropylene Film Capacitor Related Document: IEC 60384-16



MAIN APPLICATIONS

Oscillator, timing and LC/RC filter circuits, high frequency coupling/decoupling, sample and hold circuits.

MARKING

Manufacturer's logo/type/C-value/rated voltage/tolerance/date of manufacture

DIELECTRIC

Polypropylene film

ELECTRODES

Vacuum deposited aluminum

COATING

Flame retardant plastic case (UL-class 94 V-0), blue, epoxy resin sealed

CONSTRUCTION

Extended metallized film (refer to general information)

LEADS

Tinned wire

IEC TEST CLASSIFICATION

55/100/56, according to IEC 60068

OPERATING TEMPERATURE RANGE

-55°C to +100°C

CAPACITANCE RANGE

0.01µF to 0.1µF

CAPACITANCE DRIFT

Up to +40°C, < 0.5% for a period of two years

DISSIPATION FACTOR TAN δ

| MEASURED AT | C ≤ 0.1µF |
|----------------|------------------------|
| 1kHz | 0.4 x 10 ⁻³ |
| 10kHz | 0.6 x 10 ⁻³ |
| 100kHz | 4 x 10 ⁻³ |
| Maximum values | |

FEATURES

Product is completely lead (Pb)-free
Product is RoHS-compliant



CAPACITANCE TOLERANCES

± 10% (K), ± 5% (J), ± 2.5% (H), ± 1% (F)



RATED VOLTAGES (U_R)

160 VDC

RoHS
COMPLIANT

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ

100 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE)

1.6 x U_R for 2 s

INSULATION RESISTANCE

Measured at 100 VDC after one minute
100,000 MΩ minimum value

TEMPERATURE COEFFICIENT

-250°C x 10⁻⁶/°C (typical value)

MAXIMUM PULSE RISE TIME

dv/dt = 390 V/µs

If the maximum pulse voltage is less than the rated voltage, higher dv/dt values can be permitted.

DERATING FOR DC AND AC CATEGORY VOLTAGE U_C

At +85°C: U_C = 1.0 U_R

At +100°C: U_C = 0.7 U_R

SELF INDUCTANCE

~ 6 nH measured with 2mm long leads

PULL TEST ON LEADS

≥ 30 N in direction of leads according to IEC 60068-2-21

DIELECTRIC ABSORPTION

0.05% (typical value) acc. to IEC 60384-1

RELIABILITY

Operational life > 300,000 h

Failure rate < 5 FIT (40°C and 0.5 x U_R)

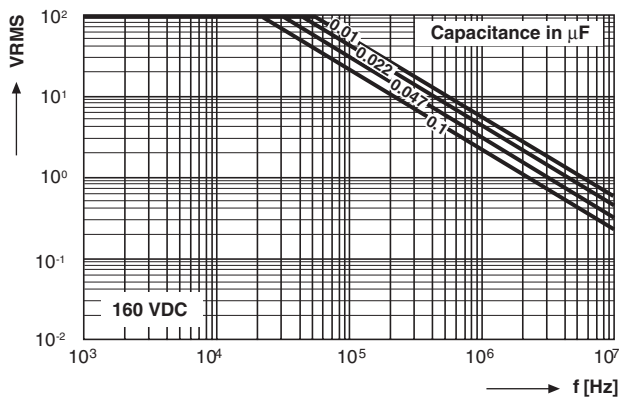
For further details, please refer to the general information available at www.vishay.com/doc?26033.

| CAPACITANCE | CAPACITANCE CODE | VOLTAGE CODE 16 160 VDC/100 VAC | | |
|---------------|------------------|------------------------------------|------|-----|
| | | W | H | L |
| 0.01 μ F | - 310 | 5.5 | 7.0 | 7.5 |
| 0.015 μ F | - 315 | 5.5 | 7.0 | 7.5 |
| 0.022 μ F | - 322 | 5.5 | 7.0 | 7.5 |
| 0.033 μ F | - 333 | 7.5 | 9.0 | 7.5 |
| 0.047 μ F | - 347 | 7.5 | 9.0 | 7.5 |
| 0.068 μ F | - 368 | 7.5 | 9.0 | 7.5 |
| 0.1 μ F | - 410 | 9.0 | 11.0 | 7.5 |

Further C-values upon request

RECOMMENDED PACKAGING

| LETTER CODE | TYPE OF PACKAGING | HEIGHT (H) (mm) | REEL DIAMETER (mm) | ORDERING CODE EXAMPLES | PCM 5 |
|-------------|-------------------|-----------------|--------------------|------------------------|-------|
| D | AMMO | 16.5 | S* | MKP 1837-322-162-D | X |
| G | AMMO | 18.5 | S* | MKP 1837-322-162-G | X |
| F | REEL | 16.5 | 350 | MKP 1837-322-162-F | X |
| W | REEL | 18.5 | 350 | MKP 1837-322-162-W | X |
| — | BULK | — | — | MKP 1837-322-162 | X |





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