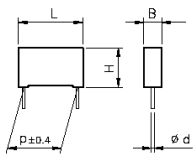
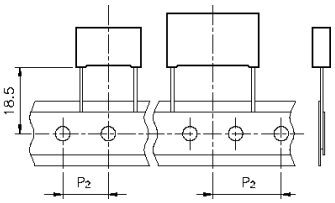
# R.41

Loose Taped Fig.1 Fig.2




| ∅ d ±0.05 | p =10 | p ≥15 |
|---|---|---|
| | 0.6 | 0.8 |

All dimensions are in mm.

## Y2 / X1 CLASS (EN132400) - MKT Series

**METALLIZED POLYESTER FILM CAPACITOR**

SELF-HEALING PROPERTIES

**Typical applications**: Interference suppression and «across-the-line» and «line to ground» applications. Suitable for use in situations where failure of the capacitor could lead to danger of electric shock.

PRODUCT CODE: **R41**

## GENERAL TECHNICAL DATA

**Dielectric:** polyester film (polyethylene terephthalate).
**Plates:** metal layer deposited by evaporation under vacuum.
**Winding:** non-inductive type.
**Leads:** tinned wire.
**Protection:** plastic case, epoxy resin filled. Box material is solvent resistant and flame retardant according to UL94 V0.
**Marking :** Manufacturer's logo, series, capacitance, tolerance, rated voltage, capacitor class, dielectric code, climatic category, passive flammability category, manufacturing date code, approvals, manufacturing plant.
**Climatic category:** 40/110/56 IEC 60068-1
**Operating temperature range:** -40 to+110°C
**Related documents:** IEC 60384-14 2nd edition 1993, + amendment A1: 1995; EN132400.

## ELECTRICAL CHARACTERISTICS

**Rated voltage ($V_R$):** 250Vac; 50/60Hz
**Capacitance range:** 0.001µF to 0.1µF
**Capacitance values:** E6 series (IEC 60063 Norm).
**Capacitance tolerances** (measured at 1 kHz)**:**
±10% (K); ±20% (M).
**Dissipation factor (DF):**
tgδ × $10^{-4}$ at +25°C ±5°C: ≤100 (60)* at 1kHz
* Typical value
**Insulation resistance:**
**Test conditions**
Temperature: +25°C±5°C
Voltage charge time: 1 min
Voltage charge: 100 Vdc
**Performance**
≥3 × $10^4$ MΩ (5 × $10^4$ MΩ)*
* Typical value
**Test voltage between terminations** (on all pieces)**:**
2500Vac for 1 s + 5000Vdc for 1 s at +25°C±5°C

| Rated Cap. | 250 Vac B | H | L | p | Max dv/dt at 350Vdc (V/µs) | Part Number |
|---|---|---|---|---|---|---|
| 1000 pF | 4.0 | 9.0 | 13.0 | 10.0 | 500 | R41.LF.1100.- -.00.- |
| 1500 pF | 4.0 | 9.0 | 13.0 | 10.0 | 500 | R41.LF.1150.- -.00.- |
| 2200 pF | 4.0 | 9.0 | 13.0 | 10.0 | 500 | R41.LF.1220.- -.00.- |
| 3300 pF | 5.0 | 11.0 | 13.0 | 10.0 | 500 | R41.LF.1330.- -.00.- |
| 4700 pF | 5.0 | 11.0 | 13.0 | 10.0 | 500 | R41.LF.1470.- -.00.- |
| 6800 pF | 6.0 | 12.0 | 13.0 | 10.0 | 500 | R41.LF.1680.- -.00.- |
| 0.010 µF | 5.0 | 11.0 | 18.0 | 15.0 | 500 | R41.LI. 2100 - -.00.- |
| 0.015 µF | 6.0 | 12.0 | 18.0 | 15.0 | 500 | R41.LI. 2150 - -.00.- |
| 0.022 µF | 7.5 | 13.5 | 18.0 | 15.0 | 500 | R41.LI. 2220.- -.00.- |
| 0.033 µF | 8.5 | 14.5 | 18.0 | 15.0 | 500 | R41.LI. 2330.- -.00.- |
| 0.047 µF | 6.0 | 15.0 | 26.5 | 22.5 | 500 | R41.LN.2470.- -.00.- |
| 0.068 µF | 7.0 | 16.0 | 26.5 | 22.5 | 500 | R41.LN.2680.- -.00.- |
| 0.10 µF | 10.0 | 18.5 | 26.5 | 22.5 | 500 | R41.LN.3100.- -.00.- |

Mechanical version and packaging (Table 1)
Tolerance: K (±10%); M (±20%)

All dimensions are in mm

## TEST METHOD AND PERFORMANCE

**Damp heat, steady state:**
**Test conditions**
Temperature: +40 ±2°C
Relative humidity (RH): 93 ±2%
Test duration: 56 days
**Performance**
Dielectric strength: no dielectric breakdown or flashover at 1500Vac/1 min
Capacitance change |ΔC/C|: ≤5%
Insulation resistance: ≥50% of initial limit.

**Endurance:**
**Test conditions**
Temperature: 110°C±2°C
Test duration: 1000 h
Voltage applied: 1.7 × $V_R$ + 1000Vac 0.1 s/h
**Performance**
Dielectric strength: no dielectric breakdown or flashover at 1500Vac/1 min
Capacitance change |ΔC/C|: ≤10%
Insulation resistance: ≥50% of initial limit.

**Resistance to soldering heat:**
**Test conditions**
Solder bath temperature: +260°C±5°C
Dipping time (with heat screen):10 s±1 s
**Performance**
Capacitance change |ΔC/C|: ≤2%

## APPROVALS

| | | | |
|---|---|---|---|
| | IMQ EN 132400<br>CB | Class Y2 / X1 | File No. V4160<br>File No. IT-1409 |
| | VDE EN132400 | Class Y2 | File No.119626 |
| | CSA C22.2 N°1 | Across-the-line or line-to-ground | File No. LR83890 |
| | UL 1414 | Across-the-line or line-to-ground | File No. E 97797 |
| | CCEE IEC60384-14 | Class Y2 | File No. |

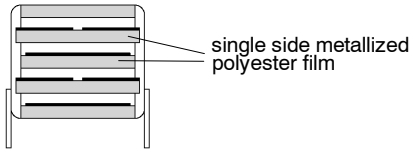
Approved according to EN132400 (IEC 60384-14 2nd ed. 1993 plus Amendment A1: 1995).
According to IEC 60065.

Table 1 ( for more detailed information, please refer to page 15).

| Standard packaging style | Lead length (mm) | Taping style $P_2$ (mm) | Fig. (No.) | Pitch (mm) | Ordering code (Digit 10 to 11) |
|---|---|---|---|---|---|
| AMMO-PACK | | 12.70 | 1 | 10.0/15.0 | DQ |
| AMMO-PACK | | 19.05 | 2 | 22.5 | DQ |
| Loose, short leads | $4^{+2}$ | | | | 00 |
| Loose, long leads | $30^{+5}$ | | | | 50 |

Note: Reel packaging available upon request.

**Winding scheme**






Last revised in March 2000