

## Polyester (PET) Film and Foil Capacitors for Pulse Applications in PCM 5 mm

### Special Features

- Pulse duty construction
- According to RoHS 2002/95/EC

### Typical Applications

For general DC-applications e.g.

- Coupling
- Decoupling

### Construction

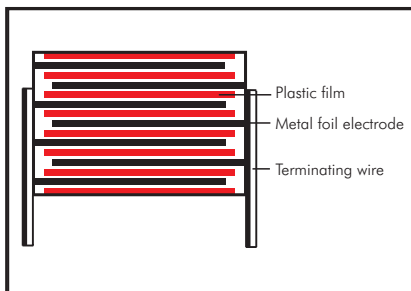
#### Dielectric:

Polyethylene-terephthalate (PET) film

#### Capacitor electrodes:

Metal foil

#### Internal construction:



#### Encapsulation:

Solvent-resistant, flame-retardent plastic case with epoxy resin seal, UL 94 V-0

#### Terminations:

Tinned wire.

#### Marking:

Colour: Red. Marking: Silver.

Epoxy resin seal: Yellow.

### Electrical Data

#### Capacitance range:

220 pF to 0.047  $\mu$ F (E12-values on request)

#### Rated voltages:

100 VDC, 250 VDC, 400 VDC

#### Capacitance tolerances:

$\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$

#### Operating temperature range:

$-55^{\circ}$  C to  $+100^{\circ}$  C

#### Test specifications:

In accordance with IEC 60384-11 and EN 130 100

#### Climatic test category:

55/100/56 in accordance with IEC

#### Insulation resistance at $+20^{\circ}$ C:

$\geq 3 \times 10^4$  M $\Omega$

(mean value:  $8 \times 10^5$  M $\Omega$ )

Measuring voltage: 100 V/1 min.

#### Test voltage: $2 U_r$ , 2 sec.

#### Maximum pulse rise time:

1000 V/ $\mu$ sec for pulses equal to the rated voltage

#### Dissipation factors at $+20^{\circ}$ C: $\tan \delta$

at f	$C \leq 0.047 \mu\text{F}$
1 kHz	$\leq 7 \times 10^{-3}$
10 kHz	$\leq 15 \times 10^{-3}$
100 kHz	$\leq 20 \times 10^{-3}$

#### Voltage derating:

A voltage derating factor of 1.25 % per K must be applied from  $+85^{\circ}$  C for DC voltages and from  $+75^{\circ}$  C for AC voltages.

#### Reliability:

Operational life > 300 000 hours

Failure rate < 5 fit ( $0.5 \times U_r$  and  $40^{\circ}$  C)

### Mechanical Tests

#### Pull test on leads:

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

#### Vibration:

6 hours at 10 ... 2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6

#### Low air density:

1 kPa = 10 mbar in accordance with IEC 60068-2-13

#### Bump test:

4000 bumps at 390 m/sec<sup>2</sup> in accordance with IEC 60068-2-29

### Packing

Available taped and reeled.

Detailed taping information and graphs at the end of the catalogue.

For further details and graphs please refer to Technical Information.

