

Polypropylene (PP) Capacitors for Pulse Applications with Metal Foil Electrodes, Schoopage Contacts and Self-Healing, Internal Series Connection for Increased Current Carrying Capability PCM 15 mm to 37.5 mm

Special Features

- High pulse duty
- Self-healing
- Internal series connection
- Very low dissipation factor
- Negative capacitance change versus temperature
- According to RoHS 2002/95/EC

Typical Applications

For high pulse and high frequency applications e.g.

- Switch mode power supplies
- Converter in drives and power electronics
- Deflection systems in monitors and TV-sets
- Electronic ballasts

Construction

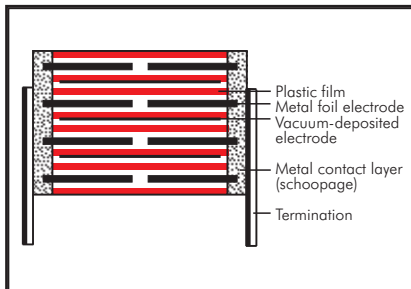
Dielectric:

Polypropylene (PP) film

Capacitor electrodes:

Aluminium foil and single-sided metallized plastic film

Internal construction:



Encapsulation:

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

Terminations:

Tinned wire.

Marking:

Colour: Red. Marking: Black.

Epoxy resin seal: Yellow

Electrical Data

Capacitance range:

100 pF to 1.5 μ F (E12-values on request)

Rated voltages:

400 VDC, 630 VDC, 1000 VDC, 1250 VDC, 1600 VDC, 2000 VDC

Capacitance tolerances:

$\pm 20\%$, $\pm 10\%$, $\pm 5\%$ (other tolerances are available subject to special enquiry)

Operating temperature range:

-55° C to $+100^{\circ}$ C

Climatic test category:

55/100/56 in accordance with IEC

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

$C \leq 0.1 \mu\text{F}$: $\geq 1 \times 10^5 \text{ M}\Omega$

(mean value: $5 \times 10^5 \text{ M}\Omega$)

$C > 0.1 \mu\text{F}$: $\geq 10\,000 \text{ sec (M}\Omega \times \mu\text{F)}$

(mean value: 100\,000 sec)

Measuring voltage: 100 V/1 min.

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

at f	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$
1 kHz	$\leq 3 \times 10^{-4}$	$\leq 3 \times 10^{-4}$	$\leq 3 \times 10^{-4}$
10 kHz	$\leq 4 \times 10^{-4}$	$\leq 6 \times 10^{-4}$	-
100 kHz	$\leq 10 \times 10^{-4}$	-	-

Maximum pulse rise time:

Capacitance pF/ μ F	max. pulse rise time V/ μ sec at $T_A < 40^{\circ}$ C					
	400 VDC	630 VDC	1000 VDC	1250 VDC	1600 VDC	2000 VDC
100 ... 220	27000	31000	33000	39000	39000	39000
330 ... 680	19000	21000	31000	34000	34000	39000
1000 ... 2200	13000	15000	27000	27000	27000	39000
3300 ... 6800	9000	14000	15000	17000	17000	21000
0.01 ... 0.022	7000	11000	11000	11000	11000	11000
0.033 ... 0.068	7000	9000	9000	9000	9000	9000
0.1 ... 0.22	7000	9000	9000	9000	9000	9000
0.33 ... 0.68	3000	5000	5000	5000	5000	-
1.0 ... 1.5	1000	1600	2000	-	-	-

for pulses equal to the rated voltage

Mechanical Tests

Pull test on leads:

$d \leq 0.8 \phi$: 10 N in direction of leads

$d > 0.8 \phi$: 20 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/sec²

in accordance with IEC 60068-2-29

Packing

Available taped and reeled up to and

including case size 15 x 26 x 31.5 /

PCM 27.5 mm.

Detailed taping information and graphs

at the end of the catalogue.

For further details and graphs please

refer to Technical Information.