



**FSC - POLYSTYRENE**

**APPLICATION**

LCR Polystyrene Capacitors are recommended for use in I.F transformers, tuned circuits, pulse networks, laboratory standards, timing circuits, analogue and digital computing circuits and many other applications where superior qualities are used to advantage.

**LCR Polystyrene Film Capacitors offer:**

- Low Temperature Coefficient
- Close capacitance tolerance
- Extreme capacitance stability
- Low power factor
- High Q
- High insulation resistance
- Small physical size

**DESCRIPTION**

Polystyrene is a superior dielectric material with exceptionally high insulation resistance and low loss.

Aluminium foil electrodes are used and terminal wires are welded to them to ensure satisfactory performance at low voltage and frequency.

**Marking**

Wherever possible capacitance, tolerance and working voltage are clearly indicated by black digital lettering, but on small components a letter code is used for tolerance and voltage (see overleaf)

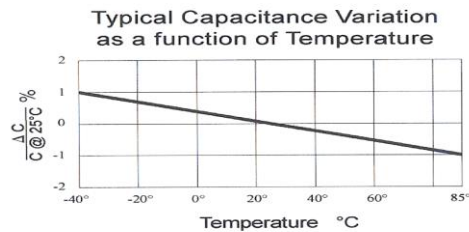
SPECIFICATION	
Capacitance Range	10pF - 200,00pF
Capacitance Tolerance	±20%, ± 10%, ± 5% ± 2.5%, or ± 1pF
Voltage (DC working)	30, 63, 160, 400, 630V
Operating temperature range	-40°C to +85°C
Temperature Coefficient	N 150 ± 50 ppm/°C
Power Factor	< 0.0005
Insulation Resistance (dry)	> 10 <sup>6</sup> MΩ
Insulation Resistance (after humidity cycle)	>50,000 MΩ
Test Voltage	All caps tested at 2.5 times working voltage
Approvals	BS, EN, ISO 9001-2008

Capacitance Tolerance Code	
1%	F
2.5%	H
5%	J
10%	K
20%	M

Voltage Letter code	
30 V	Z
160 V	X
400 V	V
630V	U

Capacitance Stability	
Capacitor Length	Long Term Stability
10 mm and over	± (0.2% + 0.4pF)
8 mm	± (0.5% + 0.4pF)

Terminations: Tinned copper Wire	
Capacitor Length (mm)	Wire Diameter (mm)
8 mm	0.3
10 mm	0.4
over 10 mm	0.6



Twin twisted 0.6 mm wires are used on capacitors above 50,000 pF.

## FSC SERIES STANDARD RANGE AND DIMENSIONS

Voltage	Capacitance pF	Length mm Nominal	Diameter mm Nominal
30 V	10 - 1,000	8.0	4.0
	1,001 - 2,000	8.0	4.5
	2,001 - 3,000	8.0	5.0
	3,001 - 5,000	10.0	5.5
	5,001 - 7,500	10.0	6.5
	7,501 - 30,000	15.0	9.0
	30,001 - 50,000	20.0	10.0
	50,001 - 100,000	30.0	11.0
100,001 - 200,000	30.0	15.0	
63 V	10 - 500	8.0	4.0
	501 - 750	8.0	5.0
	751 - 1,000	10.0	5.5
	1,001 - 2,200	10.0	6.0
	2,201 - 5,000	10.0	8.0
	5,001 - 6,800	15.0	8.0
	6,801 - 10,000	15.0	8.0
	10,001 - 15,000	15.0	10.0
	15,001 - 40,000	20.0	15.0
40,001 - 100,00	30.0	15.0	
160 V	10 - 250	8.0	4.0
	251 - 500	8.0	5.0
	501 - 1,000	10.0	6.0
	1,001 - 4,000	10.0	8.0
	4,001 - 7,500	15.0	9.5
	7,501 - 40,000	20.0	15.0
	40,001 - 100,000	30.0	18.0
400 V	10 - 100	8.0	4.0
	101 - 470	10.0	6.0
	471 - 1,000	10.0	8.0
	1,001 - 2,000	10.0	9.0
	2,201 - 5,000	15.0	12.0
	5,001 - 15,000	20.0	15.0
	15,001 - 50,000	30.0	20.0
	50,001 - 100,000	44.0	25.0
630 V	10 - 100	10.0	5.0
	101 - 250	10.0	6.0
	251 - 1,000	10.0	9.0
	1,001 - 3,000	15.0	10.0
	3,001 - 7,500	20.0	14.0
	7,501 - 40,000	30.0	23.0
	40,001 - 100,000	44.0	25.0

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