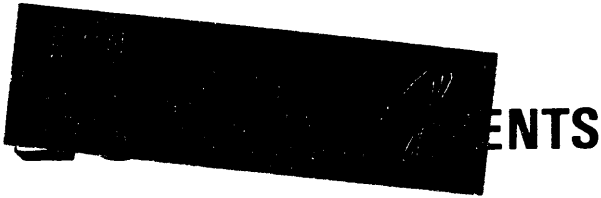


305-621 to 305 654

105-056



# LCR POLYSTYRENE CAPACITORS Type FSC

303 9869 · 304 0043

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 high frequency.

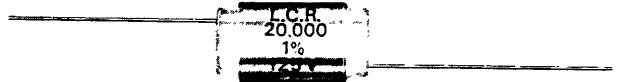
### LCR POLYSTYRENE FILM CAPACITORS offer:

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

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 their superior qualities are used to advantage.

### 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 over).



### DIMENSIONS

Vol- tage	Capacity (pF)	Length mm Nominal	Diameter mm Nominal
30V	25-1,000	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	4.5
	5,001-7,500	10.0	6.5
	7,501-30,000	15.0	9.0
	30,001-50,000	20.0	10.0
	50,001-100,000 100,001-200,000	30.0 30.0	11.0 15.0
63V	25-500	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 40,001-100,000	20.0 30.0	15.0 15.0
160V	25-250	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
400V	25-100	8.0	4.0
	101-470	10.0	6.0
	471-1,000	10.0	8.0
	1,001-2,200	10.0	12.0
	2,201-5,000	15.0	12.0
	5,001-15,000	20.0	15.0
	15,001-50,000 50,001-100,000	30.0 44.0	20.0 25.0
630V	25-100	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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# CHARACTERISTICS

## TYPE LCR (Standard Polystyrene)

Capacitance range 25pF–200,000pF  
 Tolerances  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$ ,  $\pm 2\frac{1}{2}\%$  or  $\pm 1\text{pF}$  min.

*Tolerances closer than 2½% are available.*

Voltages (DC working) 30, 63, 160, 400, 630V

Operating temperature range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

Temperature coefficient N  $150 \pm 50$  ppm/ $^{\circ}\text{C}$

Insulation resistance (dry) greater than  $10^6$  megohms

Insulation resistance (after humidity cycle) greater than 50,000 megohms

Power factor less than 0.0005

Test voltage all capacitors tested at 2.5 times working voltage

### Capacitance Tolerance Code

1pF – F  
 2½% – H  
 5% – J  
 10% – K  
 20% – M

### Voltage Letter Code

30V – Z  
 160V – X  
 400V – V  
 630V – U

### 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

### Capacitance Stability

Capacitor length	Long Term Stability
10mm and over	$\pm(0.2\% + 0.4\text{pF})$
8 mm	$\pm(0.5\% + 0.4\text{pF})$

Typical Capacitance Variation as a function of Temperature

