ENGLISH

Datasheet

RS 22pF ±4.55% 160V dc Axial Through Hole Polystyrene Film Capacitor

RS Stock 113-229

Specifications

POLYSTRYRENE 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 stabilty

Low power factor

High Q

High insulation resistance

Small physical size

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LCR POLYSTRYRENE 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.

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.

CHARACTERISTICS

TYPE LCR (Standard Polystyrene)

Capacitance	25pF - 200,000pF
Capacitance Tolerance	+- 20%,10%,5% +- 2.5% or +- 1pF min
Tolerances closer than 2.5% are available	
Voltage (DC working)	30, 63, 160, 400, 630V
Temperature Range	-40C to +85C
Temperature Coefficient	N 150 +- 50 ppm/C
Power Factor	<0.0005
Insulation Resistance (dry)	>10,000,000 Mohm
Insulation Resistance (after humidity cycle)	50,000 Mohm
Test Voltage	All caps tested at 2.5 times working voltage

Capacitance Tolerance Code

1pF - F
2.5% - H
5% - J
10% - K
20% - M
20% - M

Voltage Letter Code

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

Terminations
Tinned copper wire

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

Capacitor Length (mm)	Wire Diameter (mm)
8 mm	0.3
10 mm	0.5
over 10 mm	0.6

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Voltage	Capacity	Length	Diameter
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	30.0	11.0
	100,001-200,000	30.0	15.0
63V	25-500	8.0	4.0
	501-750	8.0	5.0
	751-1,000	8.0	5.5
	1,001-2,200	10.0	6.0
	2,201-5,000	10.0	6.0
	5,001-6,800	10.0	7.0
	6,801-10,000	15.0	8.0
	10,001-15,000	15.0	10.0
	15,001-40,000	20.0	15.0
	40,001-100,000	30.0	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	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	40.0	30.0
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

Typical Capacitance Variation as a function of Temperature