

## Film Snubber Capacitors

### Metal-Case, Paper/Polyester, Dielectric

### Extended Foil Electrodes



#### PERFORMANCE CHARACTERISTICS

**Operating Temperature:** - 65°C to + 125°C.

**Capacitance Range:** 0.01μF to 0.47μF.

**Capacitance Tolerance:** ± 20%, ± 10%, ± 5%, ± 2%.

**Voltage Rating:** 600 WVDC to 1000 WVDC.

**Dissipation Factor:** 1.0% maximum.

**Voltage Test:** 200% of rated DC voltage for 2 minutes.

**Insulation Resistance:** At + 25°C: 20,000 Megohm - Microfarads or 30,000 Megohm minimum. At + 125°C: 20 Megohm - Microfarads or 250 Megohm minimum.

**Capacitance Change with Temperature:** At - 65°C, - 10% typical. At + 125°C, + 10% typical.

#### ENVIRONMENTAL CHARACTERISTICS

**Vibration Test (Condition B):** No mechanical damage, short, open or intermittent circuits.

#### FEATURES

- Suggested replacement for Type 196P
- Moderate cost
- Small size
- High peak current ratings
- High corona starting voltage

**DC Life Test:** 140% of rated voltage for 250 hours @ + 125°C. No open or short circuits. No visible damage. Maximum Capacitance Change: ± 5%. Minimum IR = 60% of initial limit. Maximum DF = 1.0%.

**Moisture Resistance:** MIL-STD-202, Method 106E, 10 cycles. No visible damage. Maximum Capacitance Change: ± 3%. Minimum IR = 60% of initial limit. Maximum DF = 1.2%.

**Thermal Shock and Immersion Cycling:** No visible damage. Maximum Capacitance Change: ± 1%. Minimum IR = 50% of initial limit. Maximum DF = 1.2%.

#### PHYSICAL CHARACTERISTICS

**Lead Pull:** 5 pounds (2.3 kilograms) for one minute. No physical damage.

**Lead Bend:** After three complete consecutive bends, no damage.

**Lead Wire:** Bare, solid tinned wire. Case Diameters: .312" [7.92mm], No. 22 AWG; .400" [10.16mm] and over, No. 20 AWG.

**Marking:** Sprague® trademark, type or part number, capacitance and voltage.

#### STANDARD RATINGS in inches [millimeters]

CAPACITANCE (μF)	PART NUMBER ± 10% TOLERANCE	NOMINAL CASE SIZE D x L	Max. rms CURRENT @ + 85°C	Max. PEAK CURRENT @ + 85°C	Max. rms CURRENT @ + 125°C	Max. PEAK CURRENT @ + 125°C
<b>600 WVDC / 370 VAC</b>						
0.010	131P103X9600S02*	0.312 x 0.875 [7.92 x 22.23]	0.037	1.5	0.025	1.0
0.022	131P223X9600S02*	0.400 x 0.875 [10.16 x 22.23]	0.058	3.3	0.041	2.3
0.047	131P473X9600S02*	0.400 x 1.375 [10.16 x 34.93]	0.085	7.0	0.059	4.9
0.10	131P104X9600S02	0.562 x 1.375 [14.27 x 34.93]	0.149	15.0	0.104	10.5
0.22	131P224X9600S02	0.670 x 1.625 [17.02 x 41.28]	0.354	33.0	0.247	23.1
0.47	131P474X9600S02	0.750 x 2.375 [19.05 x 60.33]	0.656	70.0	0.459	49.0
<b>1000 WVDC / 500 VAC</b>						
0.010	131P103X91K0S02*	0.400 x 0.875 [10.16 x 22.23]	0.039	2.5	0.027	1.7
0.022	131P223X91K0S02*	0.400 x 1.375 [10.16 x 34.93]	0.079	5.5	0.055	3.8
0.047	131P473X91K0S02*	0.562 x 1.375 [14.27 x 34.93]	0.133	11.0	0.093	7.7
0.10	131P104X91K0S02*	0.670 x 1.625 [17.02 x 41.28]	0.241	25.0	0.168	17.5
0.22	131P224X91K0S02*	0.750 x 2.125 [19.05 x 53.98]	0.427	55.0	0.298	38.5
0.47	131P474X91K0S02*	1.000 x 2.375 [25.40 x 60.33]	0.772	117.0	0.540	81.9

\* All standard inventoried Part Numbers will be stocked in terminal and case style number S04.

#### ORDERING INFORMATION

131P TYPE	103 CAPACITANCE	X9 CAPACITANCE TOLERANCE	600 DC VOLTAGE RATING	S TERMINAL	04 CASE STYLE
<div> <div> <p>This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. Values must conform to the decade rating for the tolerance specified.</p> </div> <div> <p>X0 = ± 20% X9 = ± 10% (Inventoried) X5 = ± 5% X2 = ± 2%</p> </div> <div> <p>This is expressed in volts. (1000 WVDC coded as 1K0)</p> </div> <div> <p>S = Wire leads T = Soldering tab*</p> </div> <div> <p>Note: Inventoried items are all S04.</p> </div> </div>					
* Soldering tabs are available only on case diameters equal to or greater than 0.400" [10.16mm]. Consult the factory for special case styles and terminal configurations.					



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