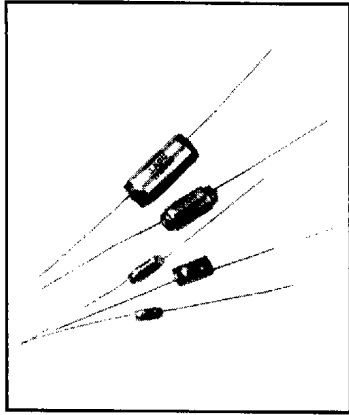


# SX Series Polystyrene-Foil / Axial Leads

**MALLORY**


- Axial Leads
- High Q and Excellent Stability
- High Insulation, Low Absorption
- Low Dissipation Factor, Tight Temperature Coefficient
- Lead Material Solder Coated or Tinned Solid Wire

The colored band at one side of the body serves as a color guide for rated voltage, and indicates the lead attached to the outside foil.

## GENERAL SPECIFICATIONS

Operating Temperature:  
-40°C to +70°C (Derate 0.67% per °C above 40°C)

Voltage Range:  
40°C - 33 VDC to 630 VDC  
70°C - 25 VDC to 500 VDC

Capacitance Range:  
20 pF to 0.1 μF

Capacitance Tolerance:  
±2.5% (SXK, SXL, SXM)  
±5.0% (SX)

Total Self Inductance:  
Body: 10 to 30 nH, function of the body length  
Leads: 10 nH/cm of length

Dielectric Withstand:  
2.5 x V rated for 5 seconds  
Charge and discharge current ≤ 50 mA

Dissipation Factor (DF):  
Shall not be > .05%

Ideally suited for precision circuits such as sample and hold, dual Slope Integration and Temperature Compensation

## Temperature Coefficient

For 33 VDC:

-125 ± 75 PPM/°C

For 63, 160, 630 VDC

Capacitance Values ≤ 500 pF -175 ± 75 PPM/°C  
Capacitance Values > 500 PF -125 ± 75 PPM/°C

## Specifications

### Insulation Resistance (IR)

Shall be less than:

50,000 MΩ or 1000/C (MΩ) (C in MFD) whichever is lower for 33 VDC at 10 VDC

100,000 MΩ or 2000/C (MΩ) (C in MFD) whichever is lower for 63 VDC at 10 VDC

500,000 MΩ or 10,000/C (MΩ) (C in MFD) whichever is lower for 160 to 630 VDC at 100 VDC

### Dielectric Absorption:

Equal to or less than .02%

### Capacitance Drift:

Equal to or less than ± 0.3% + 0.4 pF after thermal cycle from +25°C to -25°C to +70°C and back to +25°C

### Storage:

ΔC/C ≤ ± 0.5% +.4pF for SXK, SXL

ΔC/C ≤ ± 0.2% +.4PF for SXM, SX

When stored in constant climate ≤ 70% RH within operating temperature range and stabilized at 40% RH 25°C ± 5°C for 24 hours before measurements

### Life Test:

125% of rated voltage for 250 hrs at 70°C

### Soldering Conditions:

Not recommended for wave soldering

For manual soldering:

Solder Temperature: 270°C

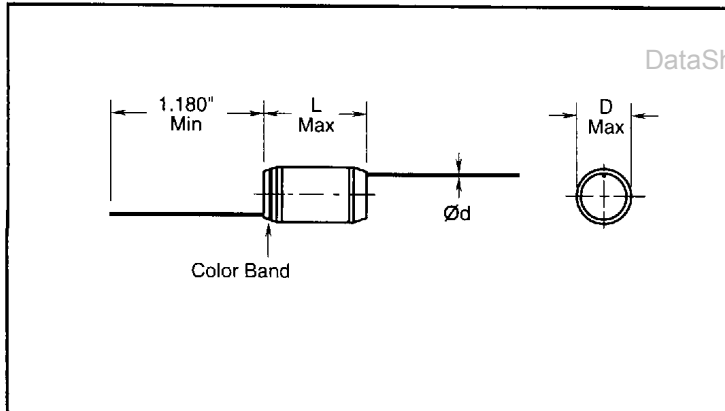
Time: 4 seconds maximum

Distance from body: .236 inches minimum

### Caution:

Exposure to temperatures > 70°C will result in serious degradation  
Clean with de-ionized water only. Do not expose to solvents.

## Outline Dimensions



# SX Series

## Polystyrene-Foil / Axial Leads

**MALLORY**

Catalog Number	Cap pF	Inches			Millimeters		
		D Max	L Max	Ød	D Max	L Max	Ød
<b>33 WVDC @ +40°C</b>							
<b>25 WVDC @ +85°C</b>							
<b>(Blue Color Band)</b>							

Catalog Number	Cap pF	D Max	L Max	Ød	D Max	L Max	Ød
SXK310	100	.180	.315	.012	4.6	8.0	.3
SXK312	120	.180	.315	.012	4.6	8.0	.3
SXK315	150	.180	.315	.012	4.6	8.0	.3
SXK318	180	.180	.315	.012	4.6	8.0	.3
SXK322	220	.180	.315	.012	4.6	8.0	.3
SXK327	270	.180	.315	.012	4.6	8.0	.3
SXK333	330	.180	.315	.012	4.6	8.0	.3
SXK339	390	.180	.315	.012	4.6	8.0	.3
SXK347	470	.180	.315	.012	4.6	8.0	.3
SXK356	560	.180	.315	.012	4.6	8.0	.3
SXK368	680	.180	.315	.012	4.6	8.0	.3
SXK382	820	.180	.315	.012	4.6	8.0	.3
SXK210	1,000	.180	.315	.012	4.6	8.0	.3
SXK212	1,200	.260	.473	.016	6.6	12.0	.4
SXK215	1,500	.260	.473	.016	6.6	12.0	.4
SXK218	1,800	.260	.473	.016	6.6	12.0	.4
SXK222	2,200	.260	.473	.016	6.6	12.0	.4
SXK227	2,700	.260	.473	.016	6.6	12.0	.4
SXK233	3,300	.260	.473	.016	6.6	12.0	.4
SXK239	3,900	.260	.473	.016	6.6	12.0	.4
SXK247	4,700	.260	.473	.016	6.6	12.0	.4
SXK256	5,600	.470	.670	.020	11.9	17.0	.5
SXK268	6,800	.470	.670	.020	11.9	17.0	.5
SXK282	8,200	.470	.670	.020	11.9	17.0	.5
SXK110	10,000	.470	.670	.020	11.9	17.0	.5
SXK112	12,000	.470	.670	.020	11.9	17.0	.5
SXK115	15,000	.470	.670	.020	11.9	17.0	.5
SXK118	18,000	.470	.670	.020	11.9	17.0	.5
SXK122	22,000	.470	.670	.020	11.9	17.0	.5
SXK125	25,000	.470	.670	.020	11.9	17.0	.5
SXK127	27,000	.470	.670	.020	11.9	17.0	.5
SXK133	33,000	.709	.867	.020	18.0	22.0	.5
SXK139	39,000	.709	.867	.020	18.0	22.0	.5
SXK147	47,000	.709	.867	.020	18.0	22.0	.5
SXK156	56,000	.709	.867	.020	18.0	22.0	.5
SXK168	68,000	.709	.867	.020	18.0	22.0	.5
SXK182	82,000	.709	.867	.020	18.0	22.0	.5
SXK010	100,000	.709	.867	.020	18.0	22.0	.5

Catalog Number	Cap pF	Inches			Millimeters		
		D Max	L Max	Ød	D Max	L Max	Ød
<b>63 WVDC @ +40°C</b>							
<b>50 WVDC @ +85°C</b>							
<b>(Yellow Color Band)</b>							

Catalog Number	Cap pF	D Max	L Max	Ød	D Max	L Max	Ød
SXL482	82	.190	.315	.012	4.8	8.0	.3
SXL310	100	.190	.315	.012	4.8	8.0	.3
SXL315	150	.190	.315	.012	4.8	8.0	.3
SXL318	180	.190	.315	.012	4.8	8.0	.3
SXL322	220	.190	.315	.012	4.8	8.0	.3
SXL327	270	.190	.315	.012	4.8	8.0	.3
SXL333	330	.190	.315	.012	4.8	8.0	.3
SXL347	470	.190	.315	.012	4.8	8.0	.3
SXL356	560	.190	.315	.012	4.8	8.0	.3
SXL368	680	.190	.315	.012	4.8	8.0	.3
SXL210	1,000	.330	.473	.016	8.4	12.0	.4
SXL212	1,200	.330	.473	.016	8.4	12.0	.4
SXL215	1,500	.330	.473	.016	8.4	12.0	.4
SXL218	1,800	.330	.473	.016	8.4	12.0	.4
SXL222	2,200	.330	.473	.016	8.4	12.0	.4
SXL227	2,700	.330	.473	.016	8.4	12.0	.4
SXL233	3,300	.330	.473	.016	8.4	12.0	.4
SXL239	3,900	.330	.473	.016	8.4	12.0	.4
SXL247	4,700	.330	.473	.016	8.4	12.0	.4
SXL256	5,600	.340	.670	.020	8.6	17.0	.5
SXL268	6,800	.340	.670	.020	8.6	17.0	.5
SXL282	8,200	.340	.670	.020	8.6	17.0	.5
SXL110	10,000	.340	.670	.020	8.6	17.0	.5
SXL112	12,000	.430	.867	.020	10.9	22.0	.5
SXL115	15,000	.430	.867	.020	10.9	22.0	.5
SXL116	16,000	.430	.867	.020	10.9	22.0	.5
SXL118	18,000	.430	.867	.020	10.9	22.0	.5
SXL120	20,000	.430	.867	.020	10.9	22.0	.5
SXL122	22,000	.430	.867	.020	10.9	22.0	.5
SXL125	25,000	.430	.867	.020	10.9	22.0	.5