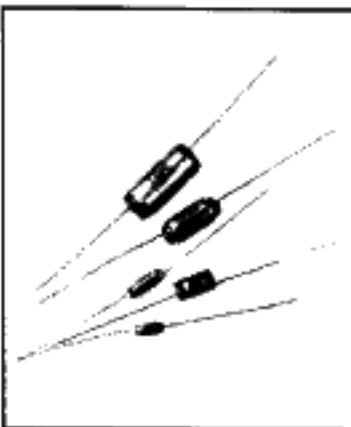


# SX Series Polystyrene-Foil / Axial Leads



- 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% (SXX, 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

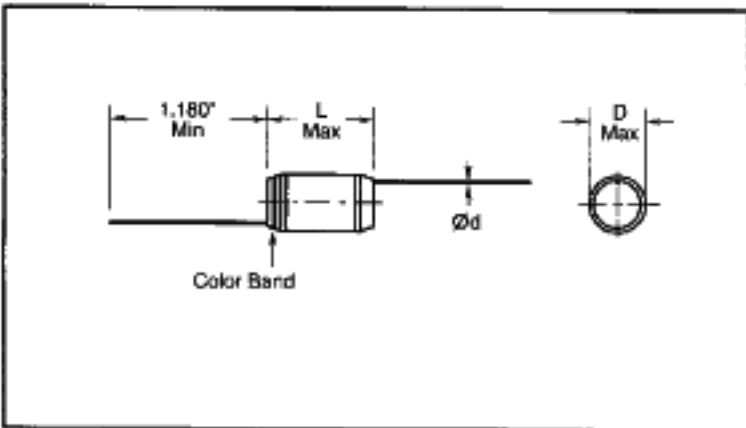
## Temperature Coefficient

<b>For 33 VDC:</b>	
-125 ± 75 PPM/°C	
<b>For 63, 160, 630 VDC</b>	
Capacitance Values ≤ 500 pF	-175 ± 75 PPM/°C
Capacitance Values > 500 pF	-125 ± 75 PPM/°C

## Specifications

<p><b>Insulation Resistance (IR)</b> 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</p>
<p><b>Dielectric Absorption:</b> Equal to or less than .02%</p>
<p><b>Capacitance Drift:</b> 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</p>
<p><b>Storage:</b> ΔC/C ≤ ± 0.5% + 4pF for SXX, 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</p>
<p><b>Life Test:</b> 125% of rated voltage for 250 hrs at 70°C</p>
<p><b>Soldering Conditions:</b> Not recommended for wave soldering For manual soldering: Solder Temperature: 270°C Time: 4 seconds maximum Distance from body: .236 inches minimum</p>
<p><b>Caution:</b> Exposure to temperatures &gt; 70°C will result in serious degradation Clean with de-ionized water only. Do not expose to solvents.</p>

## Outline Dimensions



Precision Film

# 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 25 WVDC @ +85°C (Blue Color Band)</b>							

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
SXK366	660	.180	.315	.012	4.6	8.0	.3
SXK382	820	.180	.315	.012	4.6	8.0	.3
SXK210	1,000	.260	.473	.016	6.6	12.0	.4
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	.340	.670	.020	8.6	17.0	.5
SXK266	6,600	.340	.670	.020	8.6	17.0	.5
SXK282	8,200	.340	.670	.020	8.6	17.0	.5
SXK110	10,000	.430	.867	.020	10.9	22.0	.5
SXK112	12,000	.430	.867	.020	10.9	22.0	.5
SXK115	15,000	.430	.867	.020	10.9	22.0	.5
SXK118	18,000	.430	.867	.020	10.9	22.0	.5
SXK122	22,000	.430	.867	.020	10.9	22.0	.5
SXK125	25,000	.430	.867	.020	10.9	22.0	.5
SXK127	27,000	.430	.867	.020	10.9	22.0	.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
SXK166	66,000	.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 50 WVDC @ +85°C (Yellow Color Band)</b>							

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
SXL366	660	.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
SXL266	6,600	.340	.670	.020	8.6	17.0	.5
SXL282	8,200	.340	.670	.020	8.6	17.0	.5
SXL110	10,000	.430	.867	.020	10.9	22.0	.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

Precision Film

# SX Series Polystyrene-Foil / Axial Leads

**MALLORY**

Catalog Number	Cap pF	Inches			Millimeters		
		D Max	L Max	Ød	D Max	L Max	Ød
<b>160 WVDC @ +40°C 125 WVDC @ +85°C (Red Color Band)</b>							

SXM420	20	.240	.315	.012	6.1	8.0	.3
SXM427	27	.240	.315	.012	6.1	8.0	.3
SXM433	33	.240	.315	.012	6.1	8.0	.3
SXM439	39	.240	.315	.012	6.1	8.0	.3
SXM447	47	.240	.315	.012	6.1	8.0	.3
SXM456	56	.240	.315	.012	6.1	8.0	.3
SXM466	68	.240	.315	.012	6.1	8.0	.3
SXM482	82	.240	.315	.012	6.1	8.0	.3
SXM310	100	.240	.315	.012	6.1	8.0	.3
SXM312	120	.240	.315	.012	6.1	8.0	.3
SXM315	150	.240	.315	.012	6.1	8.0	.3
SXM316	180	.240	.315	.012	6.1	8.0	.3
SXM322	220	.240	.315	.012	6.1	8.0	.3
SXM327	270	.240	.315	.012	6.1	8.0	.3
SXM330	300	.240	.315	.012	6.1	8.0	.3
SXM333	330	.240	.315	.012	6.1	8.0	.3
SXM336	360	.240	.315	.012	6.1	8.0	.3
SXM339	390	.240	.315	.012	6.1	8.0	.3
SXM343	430	.240	.315	.012	6.1	8.0	.3
SXM347	470	.240	.315	.012	6.1	8.0	.3
SXM350	500	.240	.315	.012	6.1	8.0	.3
SXM351	510	.240	.315	.012	6.1	8.0	.3
SXM356	560	.240	.315	.012	6.1	8.0	.3
SXM360	600	.240	.315	.012	6.1	8.0	.3
SXM362	620	.300	.473	.016	7.6	12.0	.4
SXM368	680	.300	.473	.016	7.6	12.0	.4
SXM375	750	.300	.473	.016	7.6	12.0	.4
SXM382	820	.300	.473	.016	7.6	12.0	.4
SXM391	910	.300	.473	.016	7.6	12.0	.4
SXM210	1,000	.300	.473	.016	7.6	12.0	.4
SXM211	1,100	.300	.473	.016	7.6	12.0	.4
SXM212	1,200	.300	.473	.016	7.6	12.0	.4
SXM213	1,300	.300	.473	.016	7.6	12.0	.4
SXM215	1,500	.300	.473	.016	7.6	12.0	.4
SXM216	1,600	.300	.473	.016	7.6	12.0	.4
SXM218	1,800	.300	.473	.016	7.6	12.0	.4
SXM220	2,000	.300	.473	.016	7.6	12.0	.4
SXM222	2,200	.370	.670	.020	9.4	17.0	.5
SXM224	2,400	.370	.670	.020	9.4	17.0	.5
SXM227	2,700	.370	.670	.020	9.4	17.0	.5
SXM230	3,000	.370	.670	.020	9.4	17.0	.5
SXM233	3,300	.370	.670	.020	9.4	17.0	.5
SXM236	3,600	.370	.670	.020	9.4	17.0	.5
SXM239	3,900	.370	.670	.020	9.4	17.0	.5
SXM243	4,300	.370	.670	.020	9.4	17.0	.5
SXM247	4,700	.370	.670	.020	9.4	17.0	.5
SXM250	5,000	.370	.670	.020	9.4	17.0	.5
SXM251	5,100	.470	.867	.020	11.9	22.0	.5
SXM256	5,600	.470	.867	.020	11.9	22.0	.5
SXM262	6,200	.470	.867	.020	11.9	22.0	.5
SXM268	6,800	.470	.867	.020	11.9	22.0	.5
SXM275	7,500	.470	.867	.020	11.9	22.0	.5
SXM282	8,200	.470	.867	.020	11.9	22.0	.5
SXM110	10,000	.470	.867	.020	11.9	22.0	.5
SXM112	12,000	.470	.867	.020	11.9	22.0	.5
SXM113	13,000	.470	.867	.020	11.9	22.0	.5
SXM115	15,000	.470	.867	.020	11.9	22.0	.5
SXM118	18,000	.530	1.260	.020	13.5	32.0	.5
SXM122	22,000	.530	1.260	.020	13.5	32.0	.5
SXM124	24,000	.530	1.260	.020	13.5	32.0	.5

Catalog Number	Cap pF	Inches			Millimeters		
		D Max	L Max	Ød	D Max	L Max	Ød
<b>630 WVDC @ +40°C 500 WVDC @ +85°C (Black Color Band)</b>							

SX420	20	.280	.473	.016	7.1	12.0	.4
SX422	22	.280	.473	.016	7.1	12.0	.4
SX424	24	.280	.473	.016	7.1	12.0	.4
SX330	30	.280	.473	.016	7.1	12.0	.4
SX430	30	.280	.473	.016	7.1	12.0	.4
SX433	33	.280	.473	.016	7.1	12.0	.4
SX436	36	.280	.473	.016	7.1	12.0	.4
SX439	39	.280	.473	.016	7.1	12.0	.4
SX443	43	.280	.473	.016	7.1	12.0	.4
SX447	47	.280	.473	.016	7.1	12.0	.4
SX456	56	.280	.473	.016	7.1	12.0	.4
SX462	62	.280	.473	.016	7.1	12.0	.4
SX468	68	.280	.473	.016	7.1	12.0	.4
SX475	75	.280	.473	.016	7.1	12.0	.4
SX482	82	.280	.473	.016	7.1	12.0	.4
SX491	91	.280	.473	.016	7.1	12.0	.4
SX310	100	.280	.473	.016	7.1	12.0	.4
SX311	110	.280	.473	.016	7.1	12.0	.4
SX312	120	.280	.473	.016	7.1	12.0	.4
SX313	130	.280	.473	.016	7.1	12.0	.4
SX315	150	.280	.473	.016	7.1	12.0	.4
SX316	160	.280	.473	.016	7.1	12.0	.4
SX318	180	.280	.473	.016	7.1	12.0	.4
SX320	200	.280	.473	.016	7.1	12.0	.4
SX322	220	.280	.473	.016	7.1	12.0	.4
SX324	240	.280	.473	.016	7.1	12.0	.4
SX327	270	.280	.473	.016	7.1	12.0	.4
SX333	330	.280	.473	.016	7.1	12.0	.4
SX336	360	.280	.473	.016	7.1	12.0	.4
SX339	390	.280	.473	.016	7.1	12.0	.4
SX343	430	.280	.473	.016	7.1	12.0	.4
SX347	470	.280	.473	.016	7.1	12.0	.4
SX351	510	.400	.670	.020	10.2	17.0	.5
SX366	560	.400	.670	.020	10.2	17.0	.5
SX362	620	.400	.670	.020	10.2	17.0	.5
SX368	680	.400	.670	.020	10.2	17.0	.5
SX375	750	.400	.670	.020	10.2	17.0	.5
SX382	820	.400	.670	.020	10.2	17.0	.5
SX210	1,000	.400	.670	.020	10.2	17.0	.5
SX211	1,100	.400	.670	.020	10.2	17.0	.5
SX212	1,200	.400	.670	.020	10.2	17.0	.5
SX213	1,300	.400	.670	.020	10.2	17.0	.5
SX215	1,500	.400	.670	.020	10.2	17.0	.5
SX218	1,800	.400	.670	.020	10.2	17.0	.5
SX220	2,000	.400	.670	.020	10.2	17.0	.5
SX222	2,200	.400	.670	.020	10.2	17.0	.5
SX224	2,400	.400	.670	.020	10.2	17.0	.5
SX225	2,500	.400	.670	.020	10.2	17.0	.5
SX227	2,700	.400	.670	.020	10.2	17.0	.5
SX230	3,000	.400	.670	.020	10.2	17.0	.5
SX233	3,300	.590	.867	.020	15.0	22.0	.5
SX236	3,600	.590	.867	.020	15.0	22.0	.5
SX239	3,900	.590	.867	.020	15.0	22.0	.5
SX243	4,300	.590	.867	.020	15.0	22.0	.5
SX247	4,700	.590	.867	.020	15.0	22.0	.5
SX250	5,000	.590	.867	.020	15.0	22.0	.5
SX251	5,100	.590	.867	.020	15.0	22.0	.5
SX256	5,600	.590	.867	.020	15.0	22.0	.5
SX262	6,200	.590	.867	.020	15.0	22.0	.5
SX268	6,800	.590	.867	.020	15.0	22.0	.5
SX275	7,500	.590	.867	.020	15.0	22.0	.5
SX282	8,200	.590	.867	.020	15.0	22.0	.5
SX291	9,100	.590	.867	.020	15.0	22.0	.5
SX110	10,000	.590	.867	.020	15.0	22.0	.5
SX122	22,000	.710	1.290	.020	18.0	32.0	.5

Precision Film