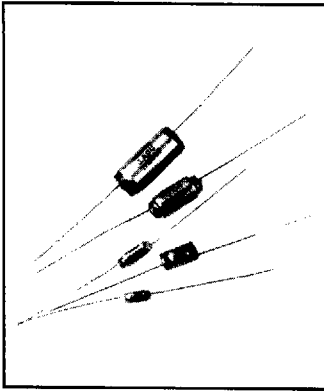


SX Series Polystyrene-Foil / Axial Leads

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:

$\Delta C/C \leq \pm 0.5\% + 4\text{pF}$ for SXK, SXL
 $\Delta C/C \leq \pm 0.2\% + 4\text{PF}$ 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

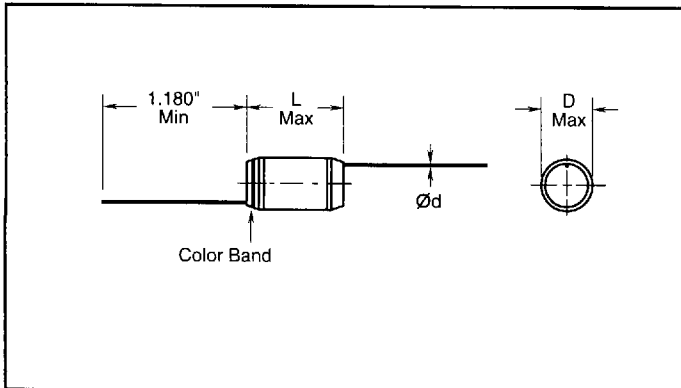
Time: 4 seconds maximum

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



Precision Film

Catalog Number	Cap pF	Inches			Millimeters		
		D Max	L Max	Ød	D Max	L Max	Ød

**33 WVDC @ +40°C
25 WVDC @ +85°C
(Blue Color Band)**

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
SXK362	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

**63 WVDC @ +40°C
50 WVDC @ +85°C
(Yellow Color Band)**

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

SX Series Polystyrene-Foil / Axial Leads

MALLORY

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

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
SXM468	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
SXM318	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
630 WVDC @ +40°C 500 WVDC @ +85°C (Black Color Band)							

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
SX356	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	1.260	.020	18.0	32.0	.5

Precision Film