SBE

Type 730P
High Frequency
Round Wrap-and-Fill
Metallized Polypropylene
Film Capacitors

Performance Characteristics

Capacitance Range:
0.022 to 10.0 µF

Capacitance Tolerance:
±20%, ±10%, ±5% standard

Voltage Rating:
100 to 630 VDC
70 to 275 VAC, 60Hz to 400Hz

Operating Temperature
Units may be operated at full rated voltage from -55°C to +85°C

ESR: 20 kHz to 100 kHz

Voltage De-rating above +85°C:
Units may be operated up to a maximum of +105°C provided the voltage is de-rated linearly to 50% of the +85°C rating.

Dissipation Factor: 0.1%maximum

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

AC Voltage Test: 130% of rated rms, 60Hz to 400Hz.

Insulation Resistance (measured at 100 VDC, 2 min charge):
At +25°C: 400,000 MΩ Minimum or 200,000 MΩ-µF
At +85°C: 20,000 MΩ Minimum or 10,000 MΩ-µF
At +105°C: 2000 MΩ Minimum or 1,000 MΩ-µF

RoHs Compliant:

Encapsulation:
Wrapped with flame retardant polyester tape (meets UL510 specifications) and potted with flame retardant epoxy (meets UL94V-0 specifications).

Dielectric/Construction:
Metallized Polypropylene film, single section design. Non-Inductively wound.

DC Life Test: 150% of rated voltage for 1000 hours @+85°C. No Open or short circuits & no visible Damage.
Maximum Δ Cap ± 1.0%
Minimum IR = 50% of Initial Limit
Maximum DF = 0.12%

AC Life Test: 110% of rated rms voltage @ 60 Hz for 1000 Hours @ +85°C.
Maximum Δ cap ±5%
Minimum IR = 50% of initial limit.
Maximum DF = 0.12%

Humidity Test: 95% RH @ 40°C for 250 hours. No visible Damage.
Maximum Δ Cap ± 1.0%
Minimum IR = 20% of initial limit
Maximum DF = 0.12%

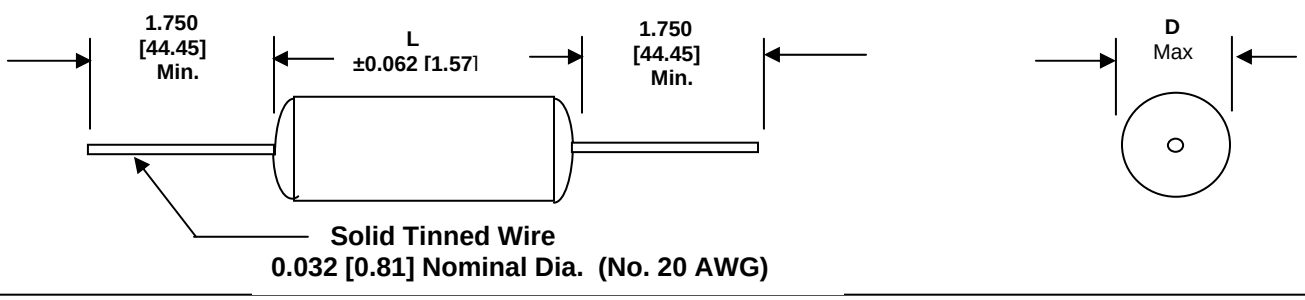
Vibration Test (Condition B: No mechanical damage, Short, open or intermittent circuits.

Lead Pull: 5 lbs (2.3Kg) for one minute. No physical Damage.

Lead Bend: After 3 complete consecutive bends. No Damage.

Marking: SBE, Type or Part number, Capacitance

DIMENSIONS in inches [millimeters]



- Leads to be within ±0.062" [1.57mm] of center line at egress but not less than 0.031" [0.79mm] from edge.

SB Electronics, Inc.
131 South Main St. • Barre, VT 05641-4854 USA
Tel: 802-476-4146 • Fax: 802-476-4149
www.SBElectronics.com • Info@SBElectronics.com

STANDARD RATINGS in inches [millimeters]

Capacitance		CASE SIZE		ESR (Milliohms) 20kHz-	Maximum Ripple Current (Amps rms) @ 20 kHz Case Temperature*** @						
(uF)	**Part Number****	D	L	**100kHz**	+25°C	+35°C	+45°C	+55°C	+65°C	+75°C	+85°C
				100WVDC/70Vrms							
0.22	730P224X9100	0.275 [7.0]	0.75 [19.0]	-----							
0.27	730P274X9100	0.298 [7.6]	0.75 [19.0]	-----	Not applicable. These capacitance values are						
0.33	730P334X9100	0.324 [8.2]	0.75 [19.0]	-----	not customarily used in switched-mode power supplies						
0.39	730P394X9100	0.347 [8.8]	0.75 [19.0]	-----	-----	-----	-----	-----	-----	-----	-----
0.47	730P474X9100	0.376 [9.6]	0.75 [19.0]	37.0	3.7	3.4	3.1	2.8	2.5	2.0	1.4
0.56	730P564X9100	0.321 [8.2]	1.00 [25.4]	35.0	3.9	3.6	3.3	2.9	2.6	2.1	1.5
0.68	730P684X9100	0.348 [8.8]	1.00 [25.4]	33.0	4.1	3.8	3.5	3.1	2.8	2.2	1.6
0.82	730P824X9100	0.377 [9.6]	1.00 [25.4]	31.0	4.3	4.0	3.6	3.2	2.9	2.3	1.7
1.0	730P105X9100	0.421 [10.7]	1.00 [25.4]	26.0	5.5	5.1	4.7	4.2	3.6	2.8	2.6
1.2	730P125X9100	0.454 [11.5]	1.00 [25.4]	24.0	5.7	5.3	4.9	4.4	3.8	3.0	2.8
1.5	730P155X9100	0.500 [12.7]	1.00 [25.4]	20	6.1	5.5	5.1	4.6	4.0	3.2	3.1
1.8	730P185X9100	0.541 [13.7]	1.00 [25.4]	19	6.3	5.7	5.3	4.8	4.1	3.4	3.0
2.0	730P205X9100	0.486 [12.3]	1.25 [31.8]	18	6.5	6.0	5.5	4.9	4.2	3.5	3.2
2.2	730P225X9100	0.507 [12.9]	1.25 [31.8]	18	6.8	6.3	5.7	5.1	4.4	3.6	3.3
2.7	730P275X9100	0.554 [14.1]	1.25 [31.8]	17	7.1	6.5	6.0	5.3	4.6	3.7	3.4
3.0	730P305X9100	0.581 [14.8]	1.25 [31.8]	16	7.3	6.7	6.2	5.5	4.8	3.9	3.5
3.3	730P335X9100	0.606 [15.4]	1.25 [31.8]	16	7.4	6.8	6.4	5.6	4.9	4.0	3.6
3.9	730P395X9100	0.654 [16.6]	1.25 [31.8]	15	7.6	6.9	6.6	5.8	5.1	4.1	3.7
4.0	730P405X9100	0.537 [13.6]	1.75 [44.5]	15	7.8	7.0	6.7	5.9	5.2	4.2	3.8
4.7	730P475X9100	0.577 [14.7]	1.75 [44.5]	15	8.1	7.4	6.8	6.0	5.3	4.3	3.9
5.0	730P505X9100	0.593 [15.1]	1.75 [44.5]	14	8.3	7.6	7.0	6.2	5.4	4.4	4.0
5.6	730P565X9100	0.624 [15.8]	1.75 [44.5]	14	8.4	7.7	7.1	6.4	5.5	4.5	4.1
6.0	730P605X9100	0.644 [16.4]	1.75 [44.5]	14	8.5	7.8	7.2	6.5	5.6	4.6	4.2
6.8	730P685X9100	0.682 [17.3]	1.75 [44.5]	13	8.5	8.0	7.4	6.7	5.7	4.7	4.3
8.0	730P805X9100	0.735 [18.7]	1.75 [44.5]	13	8.6	8.3	7.7	6.8	6.0	4.8	4.4
8.2	730P825X9100	0.743 [18.9]	1.75 [44.5]	13	8.8	8.6	8.0	7.0	6.1	4.9	4.5
10.0	730P106X9100	0.815 [20.7]	1.75 [44.5]	12	9.0	9.0	8.5	7.6	6.6	5.4	4.9
				250WVDC/175Vrms							
0.1	730P104X9250	0.279 [7.1]	0.75 [19.0]	-----							
0.12	730P124X9250	0.300 [7.6]	0.75 [19.0]	-----							
0.15	730P154X9250	0.327 [8.3]	.075 [19.0]	-----	Not applicable. These capacitance values are						
0.18	730P184X9250	0.353 [9.0]	.075 [19.0]	-----	not customarily used in switched-mode power supplies						
0.22	730P224X9250	0.306 [7.8]	1.00 [25.4]	-----							
0.27	730P274X9250	0.333 [8.5]	1.00 [25.4]	-----							
0.33	730P334X9250	0.362 [9.2]	1.00 [25.4]	-----							
0.39	730P394X9250	0.389 [9.9]	1.00 [25.4]	-----	-----	-----	-----	-----	-----	-----	-----
0.47	730P474X9250	0.422 [10.7]	1.00 [25.4]	35	3.8	3.7	3.6	3.4	2.9	2.4	1.7
0.56	730P564X9250	0.464 [11.8]	1.00 [25.4]	33	3.9	3.8	3.7	3.5	3.1	2.5	1.8
0.68	730P684X9250	0.425 [10.8]	1.25 [31.8]	32	4.0	3.9	3.8	3.7	3.2	2.6	1.9
0.82	730P824X9250	0.471 [12.0]	1.25 [31.8]	31	4.2	4.1	4.0	3.9	3.4	2.8	2.0
1.0	730P105X9250	0.513 [13.0]	1.25 [31.8]	28	4.4	4.4	4.4	4.4	4.3	3.5	3.2
1.2	730P125X9250	0.554 [14.1]	1.25 [31.8]	27	4.7	4.6	4.5	5.0	4.5	3.7	3.3
1.5	730P155X9250	0.613 [15.6]	1.25 [31.8]	26	5.1	5.0	4.9	5.4	4.7	3.9	3.5
1.8	730P185X9250	0.667 [17.0]	1.25 [31.8]	25	5.9	5.8	5.7	5.7	5.0	4.1	3.7
2.0	730P205X9250	0.700 [17.8]	1.25 [31.8]	21	7.2	7.2	6.8	6.0	5.2	4.3	3.9
2.2	730P225X9250	0.610 [15.5]	1.75 [44.5]	20	8.4	7.5	7.0	6.3	5.4	4.5	4.1
2.7	730P275X9250	0.669 [17.0]	1.75 [44.5]	19	8.6	7.8	7.3	6.6	5.7	4.7	4.3
3.0	730P305X9250	0.703 [17.9]	1.75 [44.5]	18	9.0	8.3	7.6	6.8	5.9	4.8	4.4
3.3	730P335X9250	0.734 [18.6]	1.75 [44.5]	18	9.0	8.4	7.8	7.0	6.0	4.9	4.5
3.9	730P395X9250	0.794 [20.2]	1.75 [44.5]	17	9.0	8.5	8.0	7.2	6.2	5.0	4.6
4.0	730P405X9250	0.803 [20.4]	1.75 [44.5]	16	9.0	8.6	8.2	7.4	6.3	5.1	4.7
4.7	730P475X9250	0.866 [22.0]	1.75 [44.5]	16	9.0	8.8	8.5	7.7	6.6	5.3	4.9
5.0	730P505X9250	0.892 [22.7]	1.75 [44.5]	15	9.0	9.0	8.8	7.9	6.8	5.6	5.1
5.6	730P565X9250	0.941 [23.9]	1.75 [44.5]	15	9.0	9.0	8.9	8.0	7.0	5.8	5.3
6.0	730P605X9250	0.972 [24.7]	1.75 [44.5]	15	9.0	9.0	9.0	8.2	7.2	5.9	5.5
6.8	730P685X9250	0.882 [22.4]	2.25 [57.2]	15	9.0	9.0	9.0	8.4	7.4	6.0	5.6
8.0	730P805X9250	0.953 [24.2]	2.25 [57.2]	14	9.0	9.0	9.0	8.7	7.8	6.3	5.8
8.2	730P825X9250	0.964 [24.5]	2.25 [57.2]	14	9.0	9.0	9.0	8.8	7.9	6.4	5.9
10.0	730P106X9250	1.060 [26.9]	2.25 [57.2]	13	9.0	9.0	9.0	8.9	8.3	6.8	6.2

Part Numbers listed are for a capacitance tolerance of ±10%. To Specify ± 5% change the “X9” to “X5”. The maximum dv/dt is 10 V/u sec

SB Electronics, Inc.
131 South Main St. • Barre, VT 05641-4854 USA
Tel: 802-476-4146 • Fax: 802-476-4149
www.SBElectronics.com • Info@SBElectronics.com

STANDARD RATINGS in inches [millimeters]

Capacitance		CASE SIZE		ESR (Milliohms) 20kHz-	Maximum Ripple Current (Amps rms) @ 20 kHz Case Temperature*** @						
(uF)	Part Number**	D	L	100kHz	+25°C	+35°C	+45°C	+55°C	+65°C	+75°C	+85°C
400WVDC/275Vrms											
0.047	730P473X9400	0.258 [6.6]	0.75 [19.0]	-----							
0.056	730P563X9400	0.275 [7.0]	0.75 [19.0]	-----							
0.068	730P683X9400	0.297 [7.5]	0.75 [19.0]	-----		Not applicable. These capacitance values are					
0.082	730P823X9400	0.320 [8.1]	0.75 [19.0]	-----		not customarily used in switched-mode power supplies					
0.1	730P104X9400	0.348 [8.8]	0.75 [19.0]	-----							
0.12	730P124X9400	0.299 [7.6]	1.00 [25.4]	-----							
0.15	730P154X9400	0.328 [8.3]	1.00 [25.4]	-----							
0.18	730P184X9400	0.353 [9.0]	1.00 [25.4]	-----							
0.22	730P224X9400	0.385 [9.8]	1.00 [25.4]	-----							
0.27	730P274X9400	0.421 [10.7]	1.00 [25.4]	-----							
0.33	730P334X9400	0.469 [11.9]	1.00 [25.4]	-----							
0.39	730P394X9400	0.503 [12.8]	1.00 [25.4]	-----	-----	-----	-----	-----	-----	-----	-----
0.47	730P474X9400	0.545 [13.8]	1.00 [25.4]	32.0	5.7	5.5	5.0	4.4	3.8	3.2	2.2
0.56	730P564X9400	0.506 [12.9]	1.25 [31.8]	31.0	5.7	5.7	5.3	4.4	4.1	3.3	2.3
0.68	730P684X9400	0.551 [14.0]	1.25 [31.8]	30.0	5.7	5.7	5.5	4.8	4.3	3.5	2.4
0.82	730P824X9400	0.599 [15.2]	1.25 [31.8]	28.0	5.7	5.7	5.6	5.3	4.5	3.7	2.6
1.0	730P105X9400	0.655 [16.6]	1.25 [31.8]	27.0	5.7	5.7	5.7	5.7	5.7	4.7	4.3
1.2	730P125X9400	0.712 [18.1]	1.25 [31.8]	26.0	6.3	6.2	6.0	5.9	5.8	4.9	4.5
1.5	730P155X9400	0.658 [16.7]	1.75 [44.5]	25.0	7.0	6.9	6.7	6.6	6.5	5.2	4.7
1.8	730P185X9400	0.716 [18.2]	1.75 [44.5]	23.0	8.0	7.9	7.8	7.7	6.8	5.5	5.0
2	730P205X9400	0.752 [19.1]	1.75 [44.5]	21.0	9.0	9.0	9.0	8.0	7.0	5.7	5.2
2.2	730P225X9400	0.786 [20.0]	1.75 [44.5]	20.0	9.0	9.0	9.0	8.3	7.4	5.9	5.4
2.7	730P275X9400	0.865 [22.0]	1.75 [44.5]	19.0	9.0	9.0	9.0	8.6	7.6	6.0	5.6
3.0	730P305X9400	0.909 [23.1]	1.75 [44.5]	17.0	9.0	9.0	9.0	9.0	7.9	6.4	5.9
3.3	730P335X9400	0.951 [24.2]	1.75 [44.5]	16.0	9.0	9.0	9.0	9.0	8.1	6.6	6.3
3.9	730P395X9400	1.031 [26.2]	1.75 [44.5]	15.0	9.0	9.0	9.0	9.0	8.3	6.8	6.5
630WVDC/275Vrms											
0.022	730P223X9630	0.283 [7.2]	0.75 [19.0]	-----							
0.027	730P273X9630	0.307 [7.8]	0.75 [19.0]	-----							
0.033	730P333X9630	0.334 [8.5]	0.75 [19.0]	-----							
0.039	730P393X9630	0.358 [9.1]	0.75 [19.0]	-----							
0.047	730P473X9630	0.388 [9.9]	0.75 [19.0]	-----		Not applicable. These capacitance values are					
0.056	730P563X9630	0.418 [10.6]	0.75 [19.0]	-----		not customarily used in switched-mode power supplies					
0.068	730P683X9630	0.346 [8.8]	1.00 [25.4]	-----							
0.082	730P823X9630	0.374 [9.5]	1.00 [25.4]	-----							
0.1	730P104X9630	0.408 [10.4]	1.00 [25.4]	-----							
0.12	730P124X9630	0.443 [11.3]	1.00 [25.4]	-----							
0.15	730P154X9630	0.496 [12.6]	1.00 [25.4]	-----							
0.18	730P184X9630	0.538 [13.7]	1.00 [25.4]	-----							
0.22	730P224X9630	0.496 [12.6]	1.25 [31.8]	-----							
0.27	730P274X9630	0.542 [13.8]	1.25 [31.8]	-----							
0.33	730P334X9630	0.593 [15.1]	1.25 [31.8]	-----							
0.39	730P394X9630	0.639 [16.2]	1.25 [31.8]	-----	-----	-----	-----	-----	-----	-----	-----
0.47	730P474X9630	0.696 [17.7]	1.25 [31.8]	28.0	6.8	6.3	5.8	5.2	4.5	3.6	2.6
0.56	730P564X9630	0.608 [15.4]	1.75 [44.5]	26.0	7.4	6.9	6.3	5.6	4.8	4.0	2.8
0.68	730P684X9630	0.664 [16.9]	1.75 [44.5]	25.0	7.8	7.2	6.6	5.9	5.1	4.2	2.9
0.82	730P824X9630	0.724 [18.4]	1.75 [44.5]	22.0	8.1	7.5	6.9	6.2	5.3	4.3	3.1
1.0	730P105X9630	0.794 [20.2]	1.75 [44.5]	18.0	8.6	7.9	7.3	6.5	5.6	4.6	3.6

Part Numbers listed are for a capacitance tolerance of ±10%. To Specify ± 5% change the “X9” to “X5”. The maximum dv/dt is 10 V/u sec

Ordering Information

730P
Type

224
CAPACITANCE

This is expressed in picofarads. The first two digits are the significant figures. The third is the number of Zeros to follow.

X9
CAPACITANCE TOLERANCE

X0 = ± 20%
X9 = ± 10%
X5 = ± 5%

100
DC VOLTAGE RATING*

This is expressed in volts.

* At + 85°C, AC rms ratings for frequencies up and including 400Hz are as indicated

#SBE730P 11/08