



Type 715P/717P, 800 VAC/900 VAC

High A-C Voltage Polypropylene Film/Foil Capacitors

Type 715P, 717P Orange Drop[®] High A-C Voltage Polypropylene Film/Foil Capacitors

Features

- Designed for high A-C voltage applications requiring corona free performance.
- Very low dissipation factor.
- Ideal in high frequency, high pulse current applications; high dV/dt rating.
- Excellent stability, virtually linear temperature coefficient.

Specifications

Capacitance Range:

470 pF to .015 μ F

Capacitance Tolerance:

$\pm 1\%$ to $\pm 10\%$

Voltage Ratings:

800 Volts A-C/1800 Volts D-C

900 Volts A-C/2000 Volts D-C

Operating Temperature Range:

-55°C to +85°C

(+105°C with proper voltage derating)

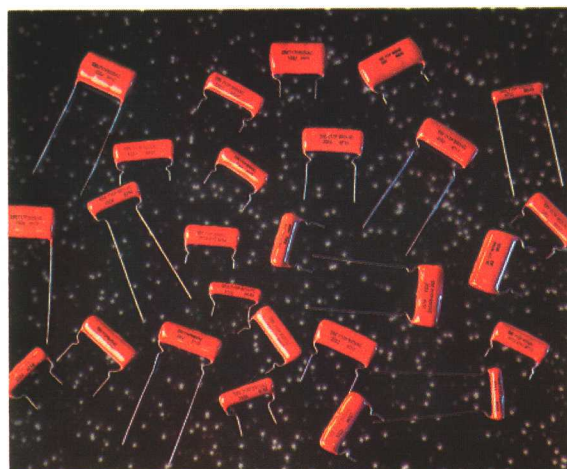
Lead Wire:

Tinned copper-clad steel,

.032" (0.8) diameter, #20 AWG

Dissipation Factor:

See standard ratings table.

**Insulation Resistance:**

400,000 M Ω minimum at +25°C

20,000 M Ω minimum at +85°C

2,000 M Ω minimum at +105°C

Pulse Rise Time, dV/dt:

See standard ratings table.

Corona Start Voltage (typical):

800 VAC units: 950 - 1000 Volts RMS

900 VAC units: 1050 - 1100 Volts RMS

Encapsulation:

Conformal coating of flame retardant orange epoxy (meets UL94V-2 specifications)

Dielectric:

Polypropylene film; utilizing a floating common of metallized polypropylene, which provides self-healing characteristics.

Construction:

Non-inductively wound with extended foil, internal series-section design.

Applications:

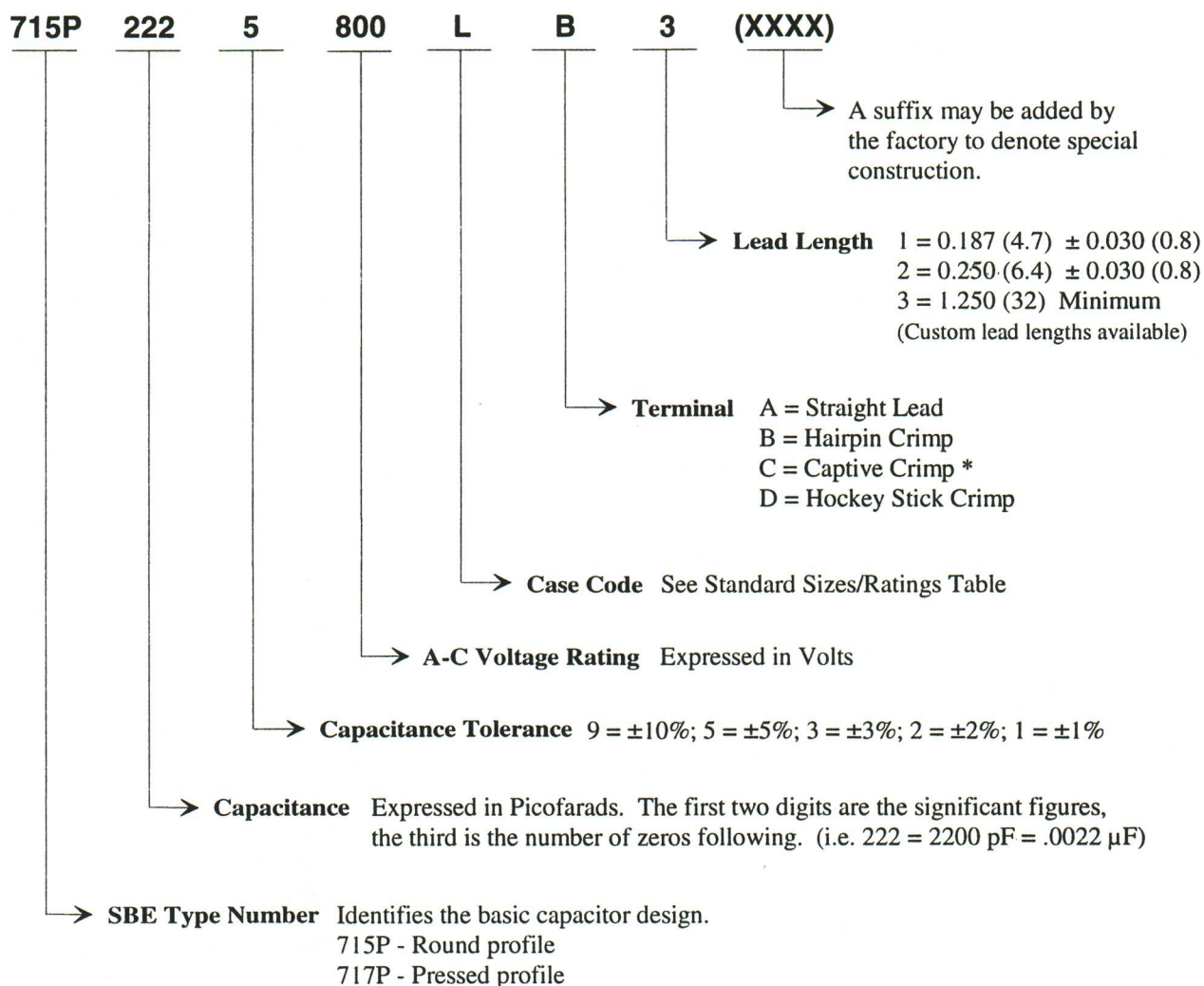
Electronic Lighting Ballasts, Switching and high voltage power supplies, and other demanding applications.

Dimensions in inches, metric (mm) in parenthesis.





Ordering/Part Number Information



* Terminal C has a lead length of 0.156 (4.0) ± 0.020 (0.5) therefore it is not necessary to indicate the lead length digit. The Captive Crimp is designed for circuit boards with hole sizes of .044 (1.1) to .048 (1.2) in diameter. Please consult us if you have a specific requirement.

Dimensions in inches, metric (mm) in parenthesis.

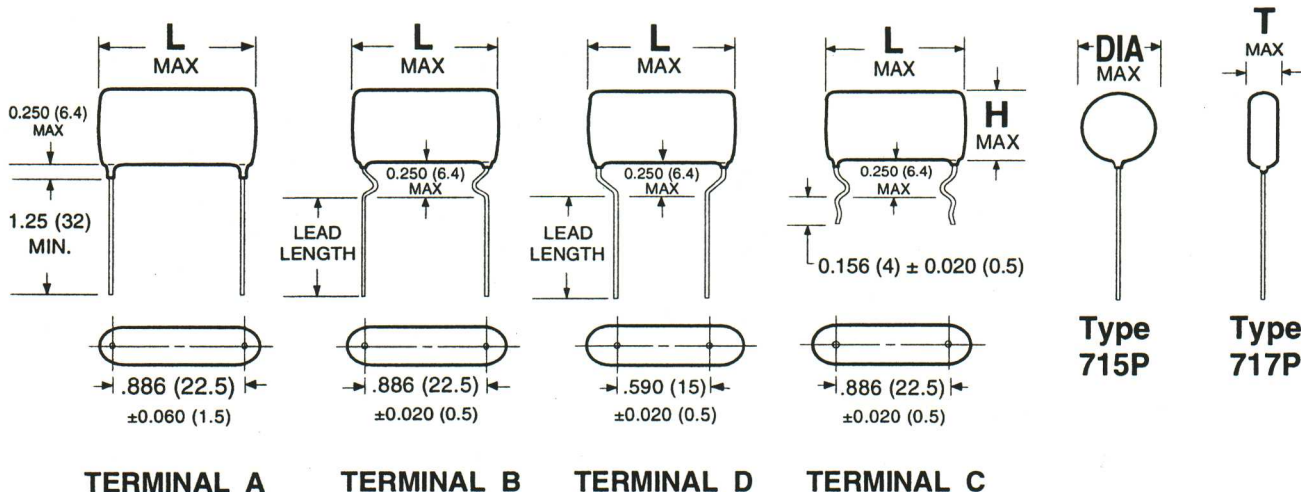




Type 715P/717P, 800 VAC

High A-C Voltage Polypropylene Film/Foil Capacitors

Standard Lead Styles/Lead Spacings



Standard Marking Format

Sample Marking on unit

SBE715P800VAC
222J 9810

Description

SBE SB Electronics identification
715P Type number
800VAC A-C Voltage rating, Volts
222J Capacitance and tolerance code
9810 Weekly date code
(i.e. 10th week of 1998)

Tolerance codes per EIA Standards

F ±1%
G ±2%
H ±3%
J ±5%
K ±10%

Dimensions in inches, metric (mm) in parenthesis.





Type 715P, 800 VAC Standard Sizes/Ratings

Value (μF)	Part Number*	L MAX	DIA MAX	H MAX	Seated Height	Max dV/dt (Volts/μsec)	Max % D.F. @	
							20KHz	100KHz
.00047	715P4715800L	1.125 (28.5)	.29 (7.4)	.35 (8.9)	.60 (15.3)	95000	.029	.039
.00056	715P5615800L	1.125 (28.5)	.30 (7.6)	.36 (9.2)	.61 (15.5)	87000	.029	.040
.00068	715P6815800L	1.125 (28.5)	.32 (8.1)	.37 (9.4)	.62 (15.8)	79000	.029	.040
.00082	715P8215800L	1.125 (28.5)	.28 (7.1)	.33 (8.4)	.58 (14.7)	72000	.030	.043
.001	715P1025800L	1.125 (28.5)	.28 (7.1)	.33 (8.4)	.58 (14.7)	65000	.030	.043
.0012	715P1225800L	1.125 (28.5)	.29 (7.4)	.35 (8.9)	.60 (15.3)	60000	.030	.044
.0015	715P1525800L	1.125 (28.5)	.31 (7.9)	.36 (9.2)	.61 (15.5)	53000	.030	.044
.0018	715P1825800L	1.125 (28.5)	.32 (8.1)	.38 (9.7)	.63 (16.0)	49000	.030	.044
.0022	715P2225800L	1.125 (28.5)	.34 (8.6)	.40 (10.2)	.65 (16.5)	44000	.030	.045
.0027	715P2725800L	1.125 (28.5)	.36 (9.2)	.42 (10.7)	.67 (17.0)	40000	.030	.045
.0033	715P3325800L	1.125 (28.5)	.38 (9.7)	.44 (11.2)	.69 (17.5)	36000	.031	.046
.0039	715P3925800L	1.125 (28.5)	.41 (10.4)	.46 (11.7)	.71 (18.0)	33000	.031	.046
.0047	715P4725800L	1.125 (28.5)	.43 (10.9)	.49 (12.5)	.74 (18.8)	30000	.031	.047
.0056	715P5625800L	1.125 (28.5)	.46 (11.7)	.52 (13.2)	.77 (19.6)	28000	.031	.048
.0068	715P6825800L	1.125 (28.5)	.49 (12.5)	.55 (14.0)	.80 (20.3)	25000	.031	.049
.0082	715P8225800L	1.125 (28.5)	.53 (13.5)	.58 (14.7)	.83 (21.2)	23000	.031	.051
.01	715P1035800L	1.125 (28.5)	.57 (14.5)	.63 (16.0)	.88 (22.4)	21000	.032	.053
.012	715P1235800L	1.125 (28.5)	.61 (15.5)	.67 (17.0)	.92 (23.4)	19000	.032	.055
.015	715P1535800L	1.125 (28.5)	.67 (17.0)	.72 (18.3)	.97 (24.6)	17000	.033	.058

Type 717P, 800 VAC Standard Sizes/Ratings

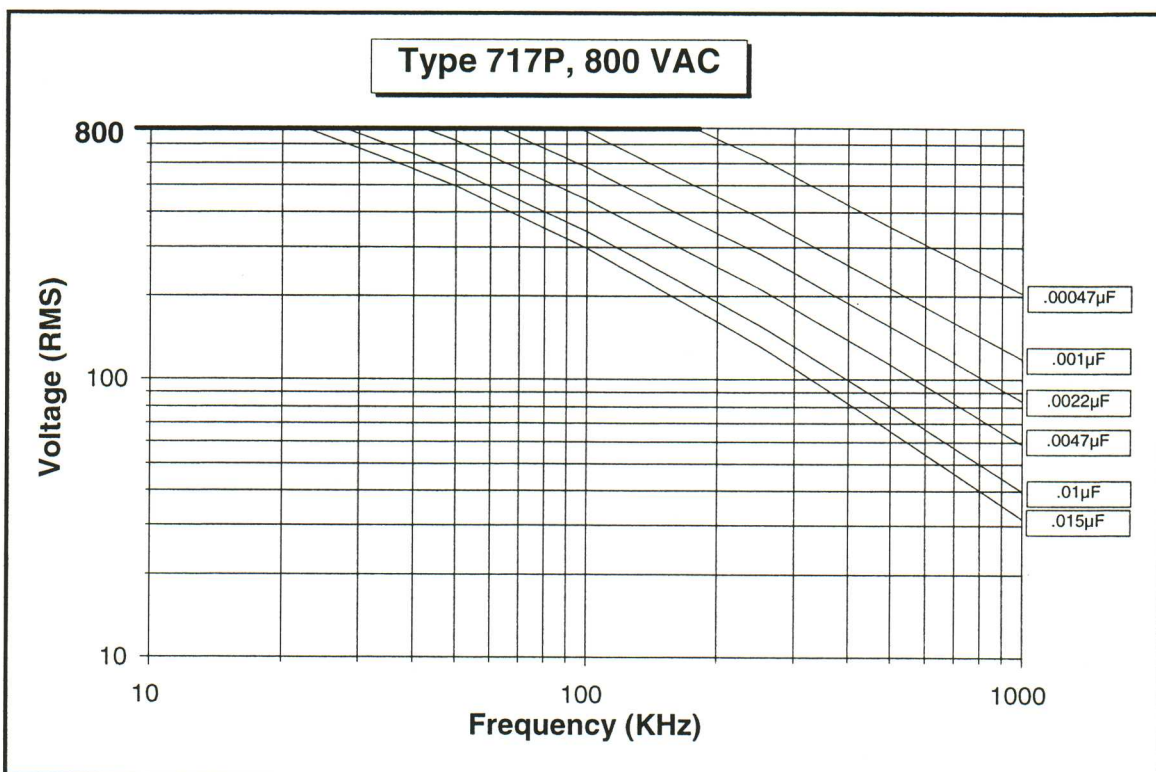
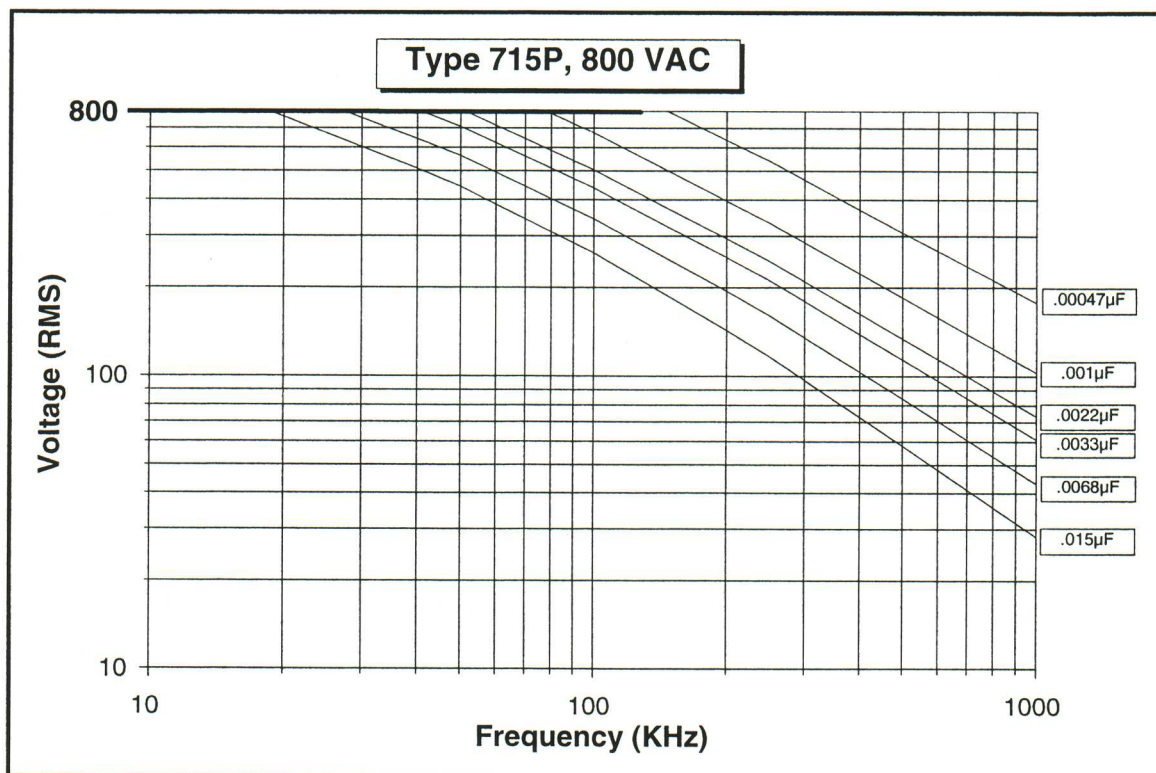
Value (μF)	Part Number*	L MAX	T MAX	H MAX	Seated Height	Max dV/dt (Volts/μsec)	Max % D.F. @	
							20KHz	100KHz
.00047	717P4715800L	1.125 (28.5)	.21 (5.4)	.39 (9.9)	.64 (16.3)	95000	.029	.039
.00056	717P5615800L	1.125 (28.5)	.22 (5.6)	.40 (10.2)	.65 (16.5)	87000	.029	.040
.00068	717P6815800L	1.125 (28.5)	.24 (6.1)	.42 (10.7)	.67 (17.0)	79000	.029	.040
.00082	717P8215800L	1.125 (28.5)	.20 (5.1)	.38 (9.7)	.63 (16.0)	72000	.030	.043
.001	717P1025800L	1.125 (28.5)	.20 (5.1)	.38 (9.7)	.63 (16.0)	65000	.030	.043
.0012	717P1225800L	1.125 (28.5)	.21 (5.3)	.39 (9.9)	.64 (16.3)	60000	.030	.044
.0015	717P1525800L	1.125 (28.5)	.23 (5.9)	.41 (10.4)	.66 (16.8)	53000	.030	.044
.0018	717P1825800L	1.125 (28.5)	.24 (6.1)	.42 (10.7)	.67 (17.0)	49000	.030	.044
.0022	717P2225800L	1.125 (28.5)	.25 (6.4)	.45 (11.4)	.70 (17.8)	44000	.030	.045
.0027	717P2725800L	1.125 (28.5)	.27 (6.9)	.47 (11.9)	.72 (18.3)	40000	.030	.045
.0033	717P3325800L	1.125 (28.5)	.29 (7.4)	.50 (12.7)	.75 (19.1)	36000	.031	.046
.0039	717P3925800L	1.125 (28.5)	.29 (7.4)	.55 (14.0)	.80 (20.3)	33000	.031	.046
.0047	717P4725800L	1.125 (28.5)	.32 (8.1)	.57 (14.5)	.82 (20.8)	30000	.031	.047
.0056	717P5625800L	1.125 (28.5)	.34 (8.6)	.60 (15.3)	.85 (21.6)	28000	.031	.048
.0068	717P6825800L	1.125 (28.5)	.38 (9.7)	.63 (16.0)	.88 (22.4)	25000	.031	.049
.0082	717P8225800L	1.125 (28.5)	.39 (9.9)	.69 (17.5)	.94 (23.9)	23000	.031	.051
.01	717P1035800L	1.125 (28.5)	.43 (10.9)	.73 (18.5)	.98 (24.9)	21000	.032	.053
.012	717P1235800L	1.125 (28.5)	.44 (11.2)	.79 (20.1)	1.04 (26.4)	19000	.032	.055
.015	717P1535800L	1.125 (28.5)	.50 (12.7)	.85 (21.6)	1.10 (27.9)	17000	.033	.058

* For complete part number please refer to Ordering/Part Number Information page.

Dimensions in inches, metric (mm) in parenthesis.

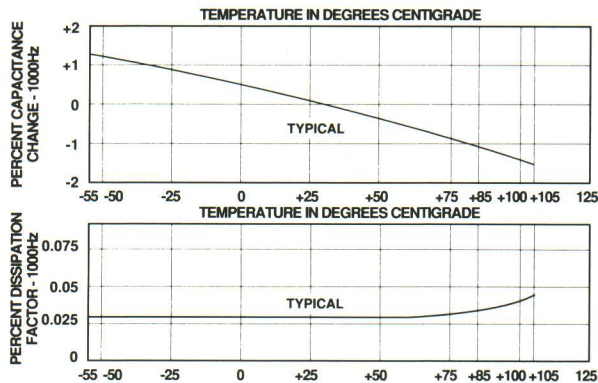


RMS Voltage vs. Frequency @ +85°C

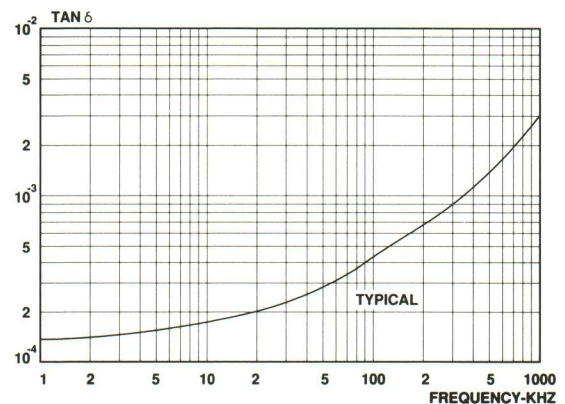


Type 715P/717P, 800VAC Performance Characteristics

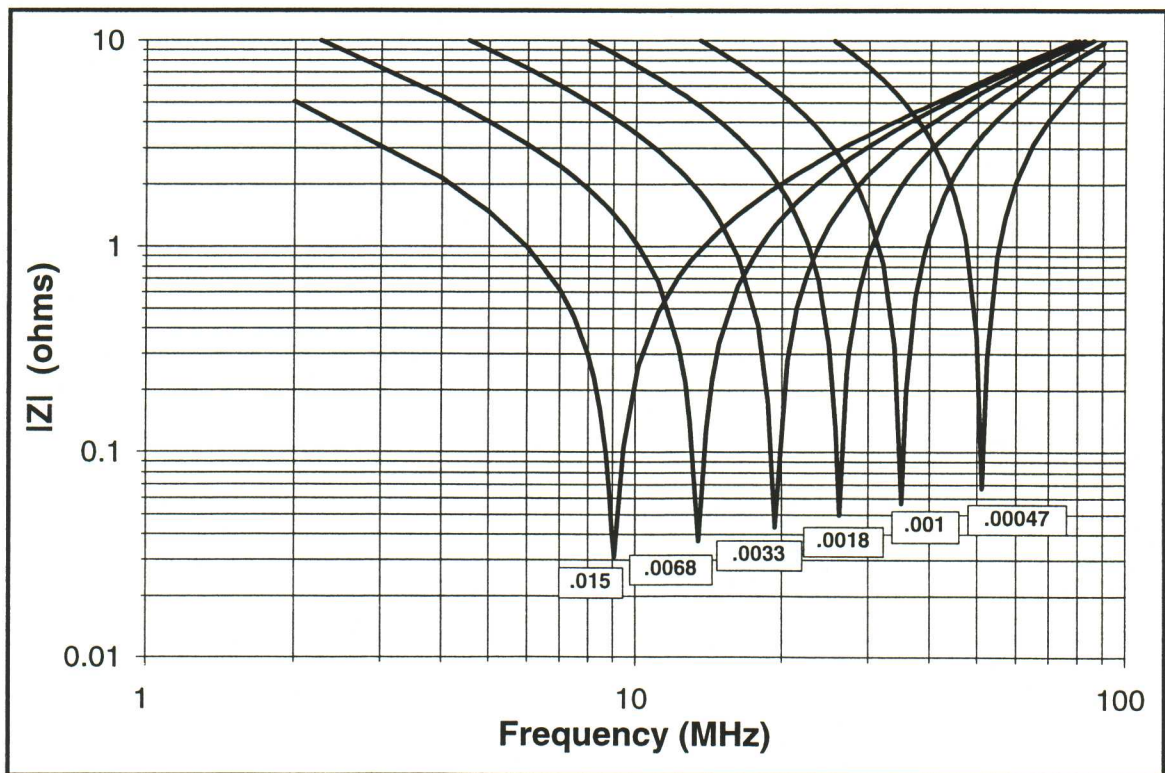
Typical Temperature Characteristics @ 1 KHz



Typical Dissipation Factor vs. Frequency @ 85°C

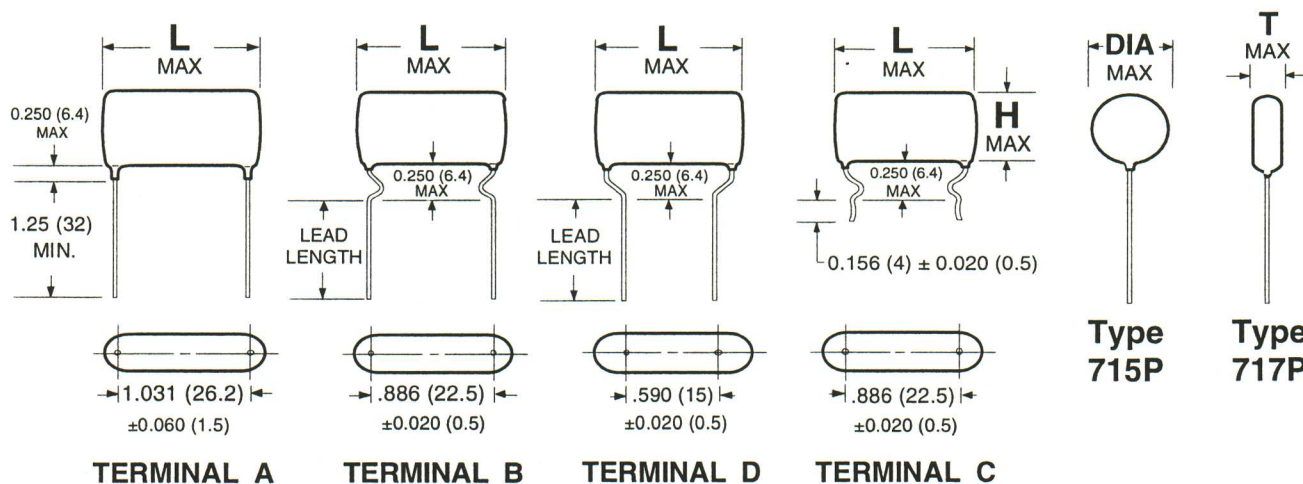


Typical Impedance vs. Frequency



Please note: Capacitance values above are in μF . The resonant frequency and impedance shown above apply to units with a 0.250" (6.4) lead length and are typical values only. Please contact us for additional data. Thank you.

Standard Lead Styles/Lead Spacings



Standard Marking Format

Sample Marking on unit

SBE715P900VAC
222J 9810

Description

SBE SB Electronics identification
715P Type number
900VAC A-C Voltage rating, Volts
222J Capacitance and tolerance code
9810 Weekly date code
(i.e. 10th week of 1998)

Tolerance codes per EIA Standards

F ±1%
G ±2%
H ±3%
J ±5%
K ±10%

Dimensions in inches, metric (mm) in parenthesis.



Type 715P, 900 VAC Standard Sizes/Ratings

Value (μF)	Part Number*	L MAX	DIA MAX	H MAX	Seated Height	Max dV/dt (Volts/μsec)	Max % D.F. @	
							20KHz	100KHz
.00047	715P4715900L	1.25 (31.8)	.27 (6.9)	.33 (8.4)	.58 (14.8)	104000	.031	.043
.00056	715P5615900L	1.25 (31.8)	.28 (7.1)	.34 (8.7)	.59 (15.0)	95000	.031	.043
.00068	715P6815900L	1.25 (31.8)	.29 (7.4)	.35 (8.9)	.60 (15.3)	86000	.031	.043
.00082	715P8215900L	1.25 (31.8)	.31 (7.9)	.36 (9.2)	.61 (15.5)	78000	.031	.043
.001	715P1025900L	1.25 (31.8)	.31 (7.9)	.37 (9.4)	.62 (15.8)	71000	.031	.043
.0012	715P1225900L	1.25 (31.8)	.33 (8.4)	.38 (9.7)	.63 (16.0)	65000	.031	.043
.0015	715P1525900L	1.25 (31.8)	.35 (8.9)	.40 (10.2)	.65 (16.5)	58000	.031	.044
.0018	715P1825900L	1.25 (31.8)	.37 (9.4)	.42 (10.7)	.67 (17.0)	53000	.031	.044
.0022	715P2225900L	1.25 (31.8)	.39 (9.9)	.45 (11.4)	.70 (17.8)	48000	.031	.044
.0027	715P2725900L	1.25 (31.8)	.42 (10.7)	.47 (11.9)	.72 (18.3)	43000	.031	.044
.0033	715P3325900L	1.25 (31.8)	.45 (11.4)	.50 (12.7)	.75 (19.1)	39000	.031	.046
.0039	715P3925900L	1.25 (31.8)	.47 (11.9)	.53 (13.5)	.78 (19.8)	36000	.031	.046
.0047	715P4725900L	1.25 (31.8)	.51 (13.0)	.56 (14.2)	.81 (20.6)	33000	.031	.047
.0056	715P5625900L	1.25 (31.8)	.54 (13.7)	.60 (15.3)	.85 (21.6)	30000	.031	.048
.0068	715P6825900L	1.25 (31.8)	.58 (14.7)	.64 (16.3)	.89 (22.6)	27000	.031	.049
.0082	715P8225900L	1.25 (31.8)	.63 (16.0)	.68 (17.3)	.93 (23.6)	25000	.032	.051
.01	715P1035900L	1.25 (31.8)	.68 (17.3)	.73 (18.5)	.98 (24.9)	23000	.032	.052

Type 717P, 900 VAC Standard Sizes/Ratings

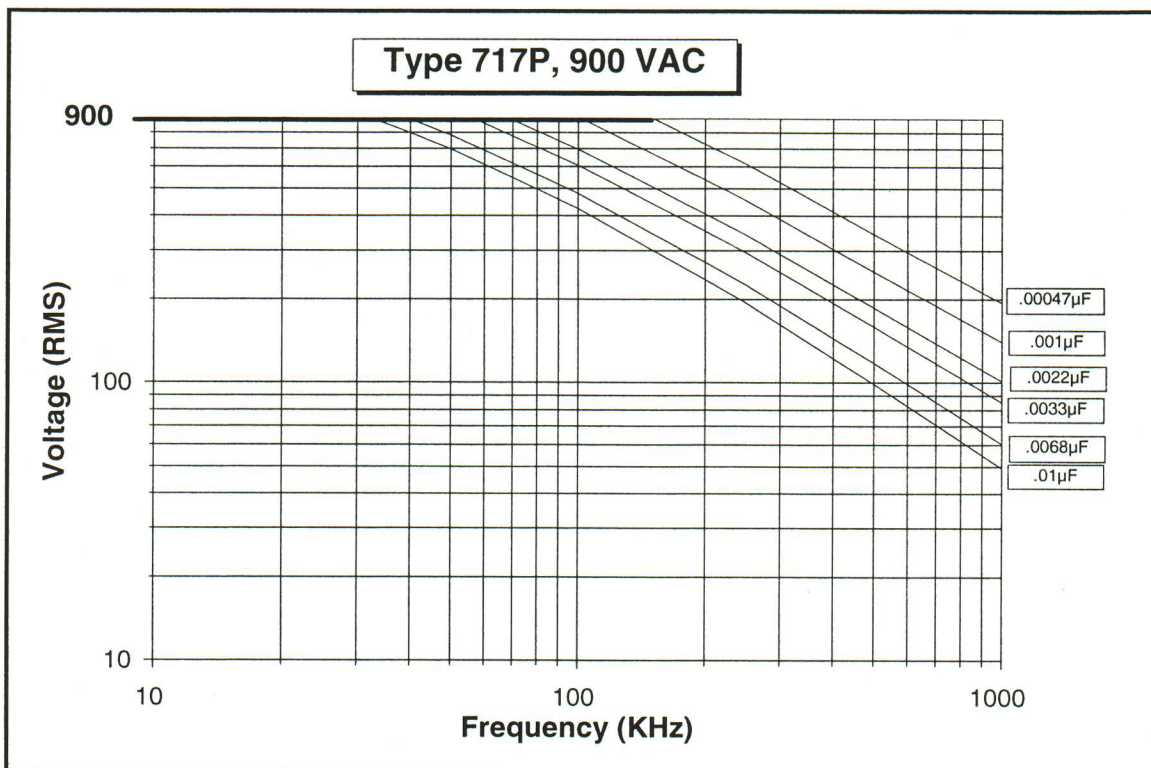
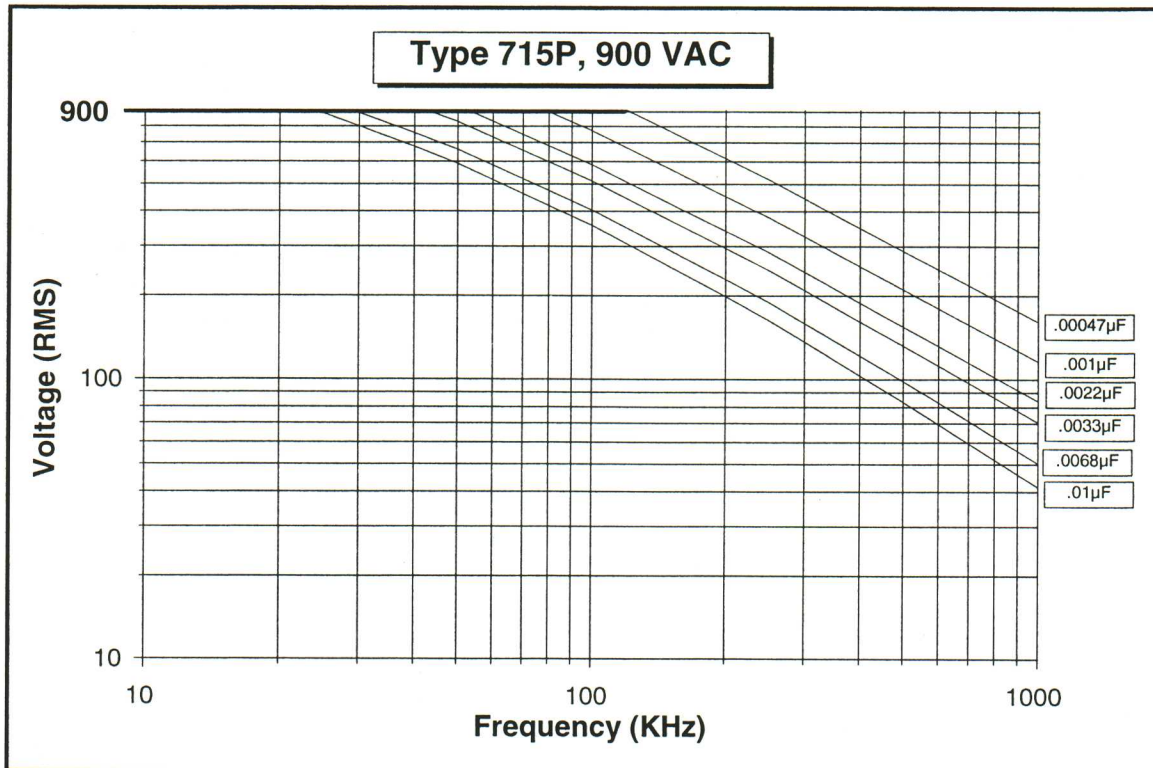
Value (μF)	Part Number*	L MAX	T MAX	H MAX	Seated Height	Max dV/dt (Volts/μsec)	Max % D.F. @	
							20KHz	100KHz
.00047	717P4715900L	1.25 (31.8)	.20 (5.1)	.37 (9.4)	.62 (15.8)	104000	.031	.043
.00056	717P5615900L	1.25 (31.8)	.21 (5.4)	.38 (9.7)	.63 (16.0)	95000	.031	.043
.00068	717P6815900L	1.25 (31.8)	.23 (5.9)	.39 (9.9)	.64 (16.3)	86000	.031	.043
.00082	717P8215900L	1.25 (31.8)	.23 (5.9)	.40 (10.2)	.65 (16.5)	78000	.031	.043
.001	717P1025900L	1.25 (31.8)	.23 (5.9)	.43 (10.9)	.68 (17.3)	71000	.031	.043
.0012	717P1225900L	1.25 (31.8)	.25 (6.4)	.44 (11.2)	.69 (17.5)	65000	.031	.043
.0015	717P1525900L	1.25 (31.8)	.27 (6.9)	.47 (11.9)	.72 (18.3)	58000	.031	.044
.0018	717P1825900L	1.25 (31.8)	.27 (6.9)	.52 (13.2)	.77 (19.6)	53000	.031	.044
.0022	717P2225900L	1.25 (31.8)	.30 (7.6)	.54 (13.7)	.79 (20.1)	48000	.031	.044
.0027	717P2725900L	1.25 (31.8)	.32 (8.1)	.57 (14.5)	.82 (20.8)	43000	.031	.044
.0033	717P3325900L	1.25 (31.8)	.33 (8.4)	.63 (16.0)	.88 (22.4)	39000	.031	.046
.0039	717P3925900L	1.25 (31.8)	.36 (9.2)	.66 (16.8)	.91 (23.1)	36000	.031	.046
.0047	717P4725900L	1.25 (31.8)	.39 (9.9)	.69 (17.5)	.94 (23.9)	33000	.031	.047
.0056	717P5625900L	1.25 (31.8)	.43 (10.9)	.73 (18.5)	.98 (24.9)	30000	.031	.048
.0068	717P6825900L	1.25 (31.8)	.47 (11.9)	.78 (19.8)	1.03 (26.2)	27000	.031	.049
.0082	717P8225900L	1.25 (31.8)	.49 (12.5)	.85 (21.6)	1.10 (27.9)	25000	.032	.051
.01	717P1035900L	1.25 (31.8)	.54 (13.7)	.91 (23.1)	1.16 (29.5)	23000	.032	.052

* For complete part number please refer to Ordering/Part Number Information page.

Dimensions in inches, metric (mm) in parenthesis.

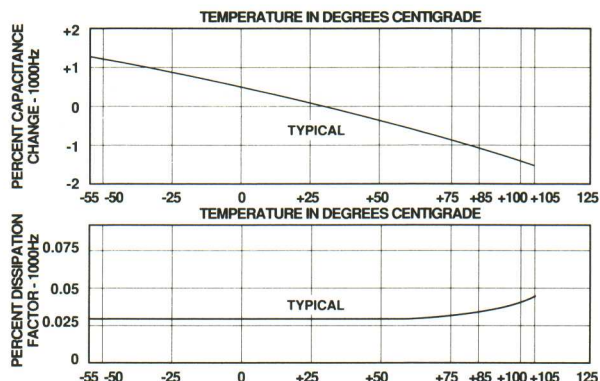


RMS Voltage vs. Frequency @ +85°C

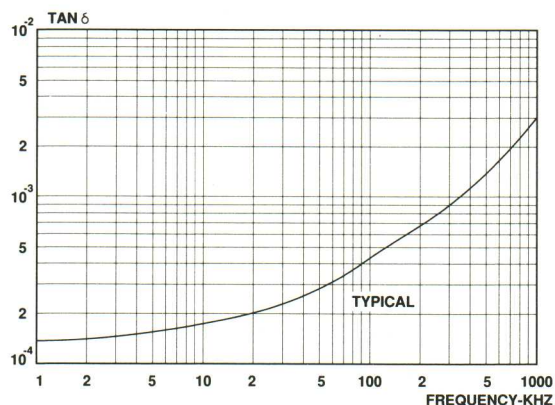


Type 715P/717P, 900VAC Performance Characteristics

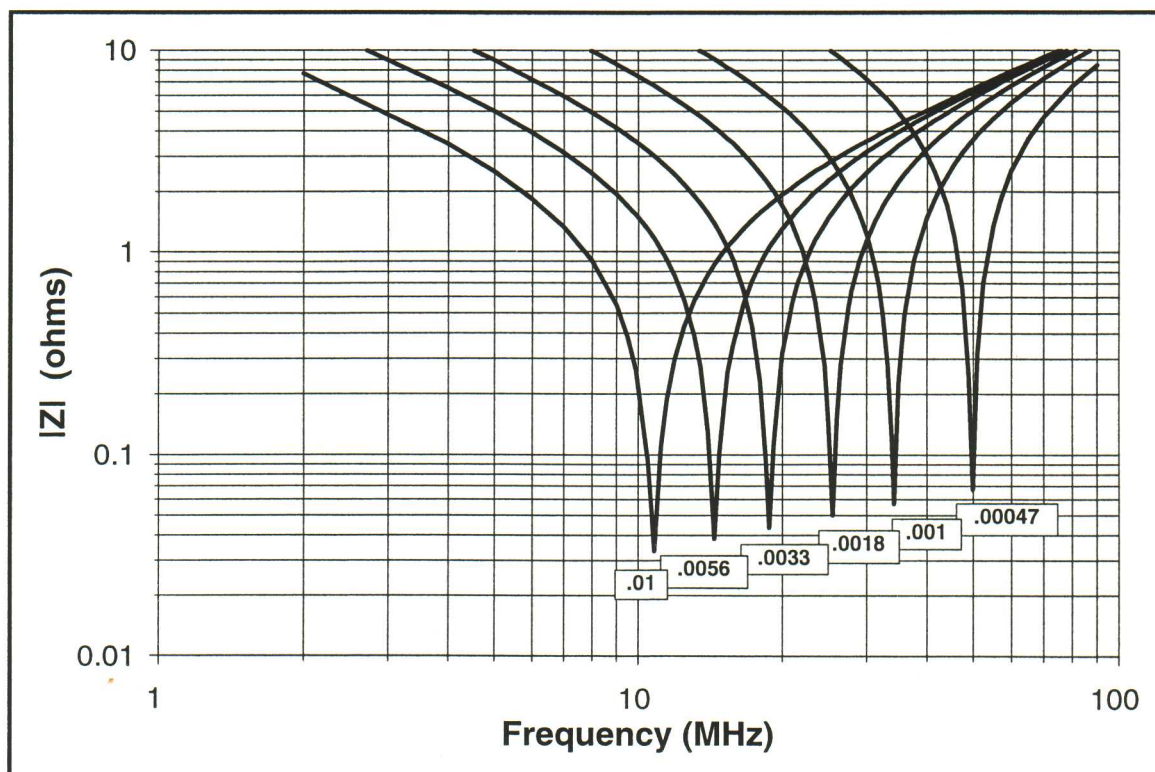
Typical Temperature Characteristics @ 1 KHz



Typical Dissipation Factor vs. Frequency @ 85°C



Typical Impedance vs. Frequency



Please note: Capacitance values above are in μF . The resonant frequency and impedance shown above apply to units with a 0.250" (6.4) lead length and are typical values only. Please contact us for additional data. Thank you.



Over 15 Years Experience in the Electronic Lighting Ballast Industry

SB Electronics has shipped over 60 million units of our High AC Voltage designs into the electronic ballast market. SBE and the High AC Voltage Orange Drop[®] are recognized as the reliability leaders. Here are just a few of the areas we focus on to assure you receive *the most* reliable film capacitor available:

- SB Electronics designs and manufactures capacitors that can be expected to outlast the life of the products they are installed in. Our units are designed and rated to operate continuously at the maximum limits stated in our specifications. Our goal is to define application constraints as clearly as possible.
- SBE has performed over 500,000 unit-hours of high frequency life testing at +85°C, between 25 and 40 KHz, with no failures! We have also performed nearly 200,000 unit-hours of high stress testing at +85°C, at frequencies between 28 and 33 KHz, and test voltages up to 25% above ratings, to better understand design and application limits.
- SBE requires a minimum corona start voltage of at least 100 VRMS above the unit's AC rating.
- ALL units are manufactured on winding equipment that uses a precise capacitance control monitoring system to assure a tight capacitance distribution. Our goal is to provide units with a capacitance distribution centered around nominal.
- SBE has the capability to manufacture the precise capacitance value you require at the tolerance you need.
- The most comprehensive and dependable support, from both a technical and customer service aspect, is only a phone call away!

