



General Specifications

The 715P and 716P series are manufactured with polypropylene film and extended foil. Polypropylene has a very low dissipation factor, low dielectric absorption and exhibits excellent capacitance stability. These characteristics combined with the direct connection of the lead wire to the extended foil electrode makes the 715P and 716P series ideal for high current, high pulse applications.

The 715P series has a round profile and is available in tolerances as close as $\pm 1\%$. The 716P series has a pressed profile and, in addition, is designed with copper leads, thus adding to its performance in high frequency, high pulse current applications.

Other specifications are listed below and on the following pages.

Operating Temperature Range:

The standard operating temperature range for polypropylene film is -55°C to $+85^{\circ}\text{C}$. The 715P and 716P may be operated up to $+105^{\circ}\text{C}$ provided the DC working voltage is reduced by 50%.

For specific derating of the AC voltage when operating above $+85^{\circ}\text{C}$ please contact our design engineering department.

The maximum operating temperature for 715P and 716P polypropylene film capacitors is $+105^{\circ}\text{C}$.

Dielectric Withstanding Voltage:

Units rated below 800 VDC shall withstand a DC potential of 250% of rated voltage applied between terminals for not more than 5 seconds; units rated 800 VDC and above shall withstand 200% of rated voltage.

Construction:

Units rated 100 through 600 VDC are single section designs constructed of plain polypropylene film with extended foil. Units rated 800 VDC and above are series-section designs with extended foil and incorporate a floating common of metallized polypropylene. All units are non-inductively wound.

Temperature Coefficient:

The typical temperature coefficient is $-180 \text{ ppm}/^{\circ}\text{C}$ over the temperature range of -55°C to $+85^{\circ}\text{C}$.

Humidity Testing:

Units subjected to 95% relative humidity for 72 hours with no voltage applied at $+75^{\circ}\text{C}$. After 4 hours of drying minimum product of insulation resistance and capacitance shall be 50,000 megohm-microfarads.

DC Voltage Life Test:

Minimum of 500 hours at $+85^{\circ}\text{C}$ at 150% of rated voltage. After test, capacitance shall not have changed by more than 3%, insulation resistance shall not have decreased by more than 25% and dissipation factor shall not have changed by more than 0.03%. Measurements made at 1 KHz.

AC Voltage Life Test:

Minimum of 500 hours at $+85^{\circ}\text{C}$ at 60 Hz. AC test voltage applied at 110% of AC rating. After test, capacitance shall not have changed by more than 3%, insulation resistance shall not have decreased by more than 25%, and dissipation factor shall not have changed by more than 0.03%. Measurements made at 1 KHz.

Additional notes on Life Testing:

SBE performs standard 500 hour accelerated life tests, both DC and line frequency AC, to monitor process control over our wide range of products.

We also perform longer term life testing, typically 2000 hours, during development of most products. In addition we do accelerated life testing at 10-250 KHz for our High Performance AC products. For additional life test information please contact us.



Type 715P Orange Drop[®] Polypropylene Film/Foil Capacitors

Features

- Long history of proven reliability
- Low dissipation factor.
- Tolerances as close as $\pm 1\%$.
- Excellent stability, virtually linear temperature coefficient.
- Various lead spacings, crimp styles and lead lengths available.

Specifications

Capacitance Range:

.001 μF to 47 μF

Capacitance Tolerance:

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

Voltage Ratings:

100 to 2000 Volts D-C
70 to 500 Volts A-C

Operating Temperature Range:

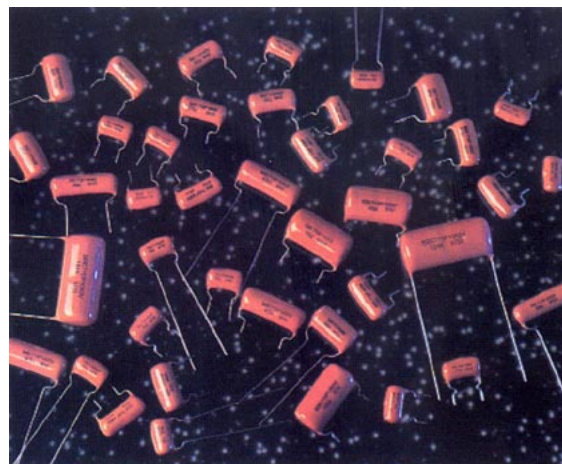
-55°C to $+85^{\circ}\text{C}$
($+105^{\circ}\text{C}$ with proper voltage derating)

Lead Wire:

Tinned copper-clad steel,
.032 (0.8) diameter, #20 AWG

Dissipation Factor:

See tabulated data.



Insulation Resistance:

400,000 $\text{M}\Omega$ minimum at $+25^{\circ}\text{C}$
20,000 $\text{M}\Omega$ minimum at $+85^{\circ}\text{C}$
2,000 $\text{M}\Omega$ minimum at $+105^{\circ}\text{C}$

Pulse Rise Time, dV/dt :

See tabulated data.

Corona Start Voltage (typical):

See tabulated data.

Encapsulation:

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

Dielectric:

Polypropylene film.

Construction:

Non-inductively wound with extended foil. Additional details on general specifications page.

Applications:

Switching and high voltage power supplies, inverters, snubbers, resonant converters and electronic lighting ballasts.

Dimensions in inches, metric (mm) in parenthesis.



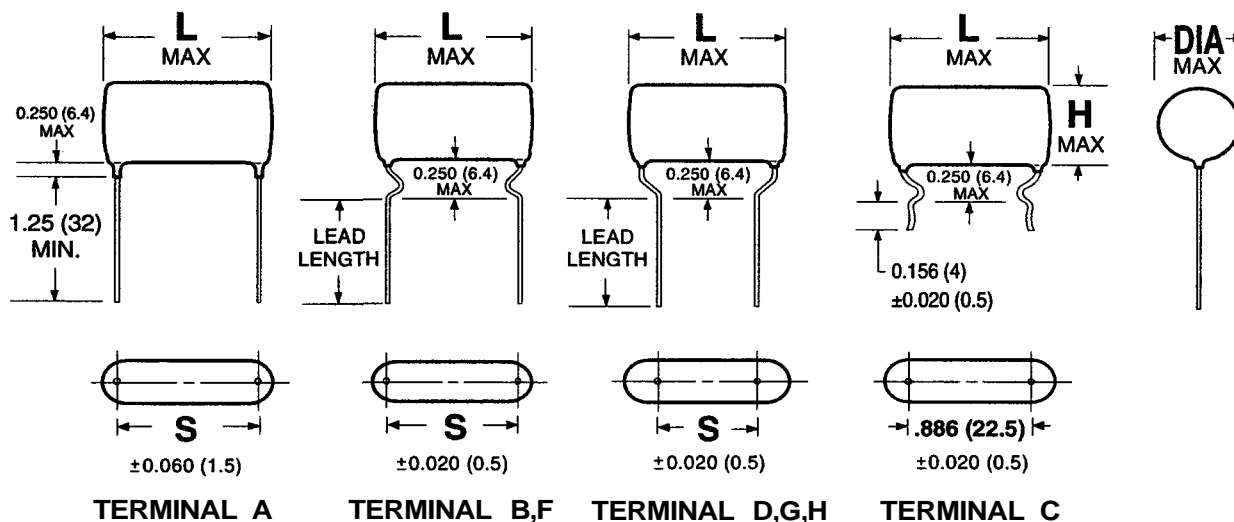


SBE

Type 715P

Polypropylene Film/Foil Capacitors

Standard Lead Styles



Standard Lead Spacings

CASE CODE	S, inches (metric, mm in parentheses)						
	Term. A	Term. B	Term. D	Term. C *	Term. F	Term. G	Term. H
N	0.394 (10)	0.394 (10)	---	---	0.295 (7.5)	0.197 (5)	---
J	0.500 (12.7)	0.500 (12.7)	0.375 (9.5)	---	0.394 (10)	0.295 (7.5)	0.197 (5)
K	0.688 (17.5)	0.688 (17.5)	0.375 (9.5)	---	0.590 (15)	0.394 (10)	0.295 (7.5)
L	1.031 (26.2)	0.969 (24.6)	0.719 (18.3)	0.886 (22.5)	0.886 (22.5)	0.590 (15)	---
M	1.406 (35.7)	1.344 (34.1)	1.094 (27.8)	---	---	1.083 (27.5)	---

* Terminal C is designed for printed circuit boards requiring a lead spacing of 0.886 (22.5) with board hole sizes of 0.044 (1.1) to 0.048 (1.2) in diameter. Available for "L" case code parts only. Please consult us if you have a specific requirement.

Standard Marking Format

Sample Marking on unit

SBE715P600V
222J 9810

Description

SBE - SB Electronics identification
715P - Type number
600V - D-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 Standard Sizes/Ratings¹

Value, μ F	Part Number ²	L MAX	DIA MAX	H MAX	Value, μ F	Part Number ²	L MAX	DIA MAX	H MAX
100 VDC / 70 VAC*					200 VDC / 155 VAC*				
.0056	715P56291N	.57 (14.5)	.25 (6.4)	.31 (7.9)	.082	715P82392L	1.25 (31.8)	.36 (9.1)	.42 (10.7)
.006	715P60291N	.57 (14.5)	.25 (6.4)	.31 (7.9)	.1	715P10492L	1.25 (31.8)	.38 (9.7)	.44 (11.2)
.0068	715P68291N	.57 (14.5)	.26 (6.6)	.32 (8.1)	.12	715P12492L	1.25 (31.8)	.41 (10.4)	.47 (11.9)
.0075	715P75291N	.57 (14.5)	.26 (6.6)	.32 (8.1)	.15	715P15492L	1.25 (31.8)	.44 (11.2)	.5 (12.7)
.0082	715P82291N	.57 (14.5)	.27 (6.9)	.33 (8.4)	.18	715P18492L	1.25 (31.8)	.47 (11.9)	.53 (13.5)
.009	715P90291N	.57 (14.5)	.26 (6.6)	.32 (8.1)	.22	715P22492L	1.25 (31.8)	.51 (13.0)	.57 (14.5)
.01	715P10391N	.57 (14.5)	.26 (6.6)	.32 (8.1)					
.012	715P12391N	.57 (14.5)	.28 (7.1)	.34 (8.6)	.27	715P27492M	1.65 (41.9)	.49 (12.4)	.55 (14.0)
.015	715P15391N	.57 (14.5)	.29 (7.4)	.35 (8.9)	.33	715P33492M	1.65 (41.9)	.53 (13.5)	.59 (15.0)
.018	715P18391N	.57 (14.5)	.31 (7.9)	.37 (9.4)	.39	715P39492M	1.65 (41.9)	.56 (14.2)	.62 (15.7)
.022	715P22391N	.57 (14.5)	.33 (8.4)	.39 (9.9)	.47	715P47492M	1.65 (41.9)	.60 (15.2)	.66 (16.8)
.025	715P25391N	.57 (14.5)	.35 (8.9)	.41 (10.4)	400 VDC / 200 VAC*				
.027	715P27391N	.57 (14.5)	.35 (8.9)	.41 (10.4)	.001	715P10294J	.70 (17.8)	.35 (8.9)	.39 (9.9)
.033	715P33391N	.57 (14.5)	.38 (9.7)	.44 (11.2)	.0012	715P12294J	.70 (17.8)	.36 (9.1)	.40 (10.2)
					.0015	715P15294J	.70 (17.8)	.32 (8.1)	.36 (9.1)
.039	715P39391J	.70 (17.8)	.34 (8.6)	.40 (10.2)	.0018	715P18294J	.70 (17.8)	.34 (8.6)	.38 (9.7)
.047	715P47391J	.70 (17.8)	.36 (9.1)	.42 (10.7)	.0022	715P22294J	.70 (17.8)	.33 (8.4)	.37 (9.4)
.05	715P50391J	.70 (17.8)	.37 (9.4)	.43 (10.9)	.0027	715P27294J	.70 (17.8)	.35 (8.9)	.39 (9.9)
.056	715P56391J	.70 (17.8)	.38 (9.7)	.44 (11.2)	.0033	715P33294J	.70 (17.8)	.32 (8.1)	.36 (9.1)
.062	715P62291J	.70 (17.8)	.40 (10.2)	.46 (11.7)					
.068	715P68391J	.70 (17.8)	.41 (10.4)	.47 (11.9)	.0039	715P39294J	.70 (17.8)	.34 (8.6)	.38 (9.7)
					.0047	715P47294J	.70 (17.8)	.34 (8.6)	.38 (9.7)
.075	715P75391K	.90 (22.9)	.36 (9.1)	.42 (10.7)	.0056	715P56294J	.70 (17.8)	.36 (9.1)	.40 (10.2)
.082	715P82391K	.90 (22.9)	.37 (9.4)	.43 (10.9)	.0068	715P68294J	.70 (17.8)	.29 (7.4)	.35 (8.9)
.09	715P90391K	.90 (22.9)	.38 (9.7)	.44 (11.2)	.0082	715P82294J	.70 (17.8)	.30 (7.6)	.36 (9.1)
.1	715P10491K	.90 (22.9)	.40 (10.2)	.46 (11.7)	.01	715P10394J	.70 (17.8)	.30 (7.6)	.36 (9.1)
.12	715P12491K	.90 (22.9)	.43 (10.9)	.49 (11.9)	.012	715P12394J	.70 (17.8)	.32 (8.1)	.38 (9.7)
.15	715P15491K	.90 (22.9)	.46 (11.7)	.52 (13.2)	.015	715P15394J	.70 (17.8)	.34 (8.6)	.40 (10.2)
.18	715P18491K	.90 (22.9)	.50 (12.7)	.56 (14.2)					
.2	715P20491K	.90 (22.9)	.52 (13.2)	.58 (14.7)	.018	715P18394K	.90 (22.9)	.31 (7.9)	.37 (9.4)
.22	715P22491K	.90 (22.9)	.54 (13.7)	.60 (15.2)	.022	715P22394K	.90 (22.9)	.33 (8.4)	.39 (9.9)
					.027	715P27394K	.90 (22.9)	.36 (9.1)	.42 (10.7)
.25	715P25491L	1.25 (31.8)	.47 (11.9)	.53 (13.5)	.033	715P33394K	.90 (22.9)	.38 (9.7)	.44 (11.2)
.27	715P27491L	1.25 (31.8)	.48 (12.2)	.54 (13.7)					
.3	715P30491L	1.25 (31.8)	.50 (12.7)	.56 (14.2)	.039	715P39394L	1.25 (31.8)	.35 (8.9)	.41 (10.4)
.33	715P33491L	1.25 (31.8)	.52 (13.2)	.58 (14.7)	.047	715P47394L	1.25 (31.8)	.37 (9.4)	.43 (10.9)
200 VDC / 155 VAC*					.056	715P56394L	1.25 (31.8)	.39 (9.9)	.45 (11.4)
.01	715P10392J	.70 (17.8)	.25 (6.4)	.31 (7.9)	.068	715P68394L	1.25 (31.8)	.42 (10.7)	.48 (12.2)
.012	715P12392J	.70 (17.8)	.26 (6.6)	.32 (8.1)	.082	715P82394L	1.25 (31.8)	.45 (11.4)	.51 (13.0)
.015	715P15392J	.70 (17.8)	.28 (7.1)	.34 (8.6)	.1	715P10494L	1.25 (31.8)	.48 (12.2)	.54 (13.7)
.018	715P18392J	.70 (17.8)	.29 (7.4)	.35 (8.9)	.12	715P12494L	1.25 (31.8)	.52 (13.2)	.58 (14.7)
.022	715P22392J	.70 (17.8)	.31 (7.9)	.37 (9.4)	.15	715P15494L	1.25 (31.8)	.56 (14.2)	.62 (15.7)
.027	715P27392J	.70 (17.8)	.33 (8.4)	.39 (9.9)					
.033	715P33392J	.70 (17.8)	.36 (9.1)	.42 (10.7)	.18	715P18494M	1.65 (41.9)	.54 (13.7)	.60 (15.2)
					.22	715P22494M	1.65 (41.9)	.58 (14.7)	.64 (16.3)
.039	715P39392K	.90 (22.9)	.32 (8.1)	.38 (9.7)	.27	715P27494M	1.65 (41.9)	.63 (16.0)	.69 (17.5)
.047	715P47392K	.90 (22.9)	.34 (8.6)	.40 (10.2)	.33	715P33494M	1.65 (41.9)	.70 (17.8)	.76 (19.3)
.056	715P56392K	.90 (22.9)	.37 (9.4)	.43 (10.9)	.39	715P39494M	1.65 (41.9)	.75 (19.1)	.81 (20.6)
.068	715P68392K	.90 (22.9)	.39 (9.9)	.45 (11.4)	.47	715P47494M	1.65 (41.9)	.82 (20.8)	.88 (22.4)

¹ Shaded part numbers, when ordered as $\pm 5\%$ tolerance with D3 leads, are standard stock items available through the Sprague/Vishay Distribution Network. For complete part number add letter and number for terminal style and lead length in accordance with Ordering Information, (i.e. 715P10452LD3)

² To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

Dimensions in inches, metric (mm) in parenthesis.



Type 715P Standard Sizes/Ratings¹

Value, μ F	Part Number ²	L MAX	DIA MAX	H MAX	Value, μ F	Part Number	L MAX	DIA MAX	H MAX
600 VDC / 200 VAC*					1000 VDC / 450 VAC*				
.001	715P10296J	.70 (17.8)	.35 (8.9)	.39 (9.9)	.0056	715P562910L	1.25 (31.8)	.28 (7.1)	.34 (8.6)
.0012	715P12296J	.70 (17.8)	.36 (9.1)	.40 (10.2)	.0068	715P682910L	1.25 (31.8)	.29 (7.4)	.35 (8.9)
.0015	715P15296J	.70 (17.8)	.32 (8.1)	.36 (9.1)	.0082	715P822910L	1.25 (31.8)	.31 (7.9)	.37 (9.4)
.0018	715P18296J	.70 (17.8)	.34 (8.6)	.38 (9.7)	.01	715P103910L	1.25 (31.8)	.33 (8.4)	.39 (3.9)
.0022	715P22296J	.70 (17.8)	.33 (8.4)	.37 (9.4)	.012	715P123910L	1.25 (31.8)	.35 (8.9)	.41 (10.4)
.0027	715P27296J	.70 (17.8)	.35 (8.9)	.39 (9.9)					
.0033	715P33296J	.70 (17.8)	.32 (8.1)	.36 (9.1)	.015	715P153910L	1.25 (31.8)	.38 (9.7)	.44 (11.2)
.0039	715P39296J	.70 (17.8)	.34 (8.6)	.38 (9.7)	.018	715P183910L	1.25 (31.8)	.41 (10.4)	.47 (11.9)
.0047	715P47296J	.70 (17.8)	.34 (8.6)	.38 (9.7)	.022	715P223910L	1.25 (31.8)	.44 (11.2)	.50 (12.7)
.0056	715P56296J	.70 (17.8)	.36 (9.1)	.40 (10.2)	.027	715P273910L	1.25 (31.8)	.47 (11.9)	.53 (13.5)
.0068	715P68296J	.70 (17.8)	.38 (9.7)	.42 (10.7)	.033	715P333910L	1.25 (31.8)	.51 (13.0)	.57 (14.5)
.0082	715P82296K	.90 (22.9)	.34 (8.6)	.38 (9.7)	.039	715P393910M	1.65 (41.9)	.47 (11.9)	.53 (13.5)
.01	715P10396K	.90 (22.9)	.36 (9.1)	.40 (10.2)	.047	715P473910M	1.65 (41.9)	.50 (12.7)	.56 (14.2)
.012	715P12396K	.90 (22.9)	.38 (9.7)	.42 (10.7)	.056	715P563910M	1.65 (41.9)	.53 (13.5)	.59 (15.0)
.015	715P15396K	.90 (22.9)	.42 (10.7)	.46 (11.7)	.068	715P683910M	1.65 (41.9)	.58 (14.7)	.64 (16.3)
.018	715P18396K	.90 (22.9)	.44 (11.2)	.48 (12.2)	.082	715P823910M	1.65 (41.9)	.62 (15.7)	.68 (17.3)
.022	715P22396K	.90 (22.9)	.48 (12.2)	.52 (13.2)	.1	715P104910M	1.65 (41.9)	.67 (17.0)	.73 (18.5)
.027	715P27396L	1.25 (31.8)	.43 (10.2)	.47 (11.9)	1200 VDC / 475 VAC*				
.033	715P33396L	1.25 (31.8)	.46 (11.7)	.50 (12.7)	.001	715P102912L	1.25 (31.8)	.29 (7.4)	.33 (8.4)
.039	715P39396L	1.25 (31.8)	.49 (12.4)	.53 (13.5)	.0012	715P122912L	1.25 (31.8)	.30 (7.6)	.34 (8.6)
.047	715P47396L	1.25 (31.8)	.52 (13.2)	.56 (14.2)	.0015	715P152912L	1.25 (31.8)	.32 (8.1)	.36 (9.1)
.056	715P56396L	1.25 (31.8)	.56 (14.2)	.60 (15.2)	.0018	715P182912L	1.25 (31.8)	.34 (8.6)	.38 (9.7)
.068	715P68396L	1.25 (31.8)	.60 (15.2)	.64 (16.3)	.0022	715P222912L	1.25 (31.8)	.35 (8.9)	.39 (9.9)
.082	715P82396L	1.25 (31.8)	.65 (16.5)	.69 (17.5)					
.1	715P10496L	1.25 (31.8)	.71 (18.0)	.75 (19.2)	.0027	715P272912L	1.25 (31.8)	.38 (9.7)	.42 (10.7)
					.0033	715P332912L	1.25 (31.8)	.32 (8.1)	.38 (9.7)
.12	715P12496M	1.65 (41.9)	.65 (16.5)	.69 (17.5)	.0039	715P392912L	1.25 (31.8)	.34 (8.6)	.40 (10.2)
.15	715P15496M	1.65 (41.9)	.71 (18.0)	.75 (19.1)	.0047	715P472912L	1.25 (31.8)	.36 (9.1)	.42 (10.7)
.18	715P18496M	1.65 (41.9)	.77 (19.6)	.81 (20.6)	.0056	715P562912L	1.25 (31.8)	.38 (9.7)	.44 (11.2)
.22	715P22496M	1.65 (41.9)	.83 (21.1)	.85 (21.6)					
					.0068	715P682912L	1.25 (31.8)	.41 (10.4)	.47 (11.9)
800 VDC / 450 VAC*					.0082	715P822912L	1.25 (31.8)	.44 (11.2)	.50 (12.7)
.0056	715P56298L	1.25 (31.8)	.28 (7.1)	.34 (8.6)	.01	715P103912L	1.25 (31.8)	.47 (11.9)	.53 (13.5)
.0068	715P68298L	1.25 (31.8)	.29 (7.4)	.35 (8.9)	.012	715P123912L	1.25 (31.8)	.51 (13.0)	.57 (14.5)
.0082	715P82298L	1.25 (31.8)	.31 (7.9)	.37 (9.4)	.015	715P153912L	1.25 (31.8)	.55 (14.0)	.61 (15.5)
.01	715P10398L	1.25 (31.8)	.33 (8.4)	.39 (9.9)					
.012	715P12398L	1.25 (31.8)	.35 (8.9)	.41 (10.4)	.018	715P183912M	1.65 (41.9)	.50 (12.7)	.56 (14.2)
					.022	715P223912M	1.65 (41.9)	.54 (13.7)	.60 (15.2)
.015	715P15398L	1.25 (31.8)	.38 (9.7)	.44 (11.2)	.027	715P273912M	1.65 (41.9)	.59 (15.0)	.65 (16.5)
.018	715P18398L	1.25 (31.8)	.41 (10.4)	.47 (11.9)	.033	715P333912M	1.65 (41.9)	.64 (16.3)	.70 (17.8)
.022	715P22398L	1.25 (31.8)	.44 (11.2)	.50 (12.7)	.039	715P393912M	1.65 (41.9)	.68 (17.3)	.74 (18.8)
.027	715P27398L	1.25 (31.8)	.47 (11.9)	.53 (13.5)	.047	715P473912M	1.65 (41.9)	.74 (18.8)	.80 (20.3)
.033	715P33398L	1.25 (31.8)	.51 (13.0)	.57 (14.5)					
.039	715P39398M	1.65 (41.9)	.47 (11.9)	.53 (13.5)					
.047	715P47398M	1.65 (41.9)	.50 (12.7)	.56 (14.2)					
.056	715P56398M	1.65 (41.9)	.53 (13.5)	.59 (15.0)					
.068	715P68398M	1.65 (41.9)	.58 (14.7)	.64 (16.3)					
.082	715P82398M	1.65 (41.9)	.62 (15.7)	.68 (17.3)					
.1	715P10498M	1.65 (41.9)	.67 (17.0)	.73 (18.5)					

¹ Shaded part numbers, when ordered as $\pm 5\%$ tolerance with D3 leads, are standard stock items available through the Sprague/Vishay Distribution Network. For complete part number add letter and number for terminal style and lead length in accordance with Ordering Information, (i.e. 715P10452LD3)

² To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

Dimensions in inches, metric (mm) in parenthesis.



Type 715P Standard Sizes/Ratings¹

Value, μ F	Part Number ²	L MAX	DIA MAX	H MAX	Value, μ F	Part Number ²	L MAX	DIA MAX	H MAX
1600 VDC / 500 VAC*					2000 VDC / 500 VAC*				
.001	715P102916L	1.25 (31.8)	.29 (7.4)	.33 (8.4)	.001	715P102920L	1.25 (31.8)	.29 (7.4)	.33 (8.4)
.0012	715P122916L	1.25 (31.8)	.30 (7.6)	.34 (8.6)	.0012	715P122920L	1.25 (31.8)	.30 (7.6)	.34 (8.6)
.0015	715P152916L	1.25 (31.8)	.32 (8.1)	.36 (9.1)	.0015	715P152920L	1.25 (31.8)	.32 (8.1)	.36 (9.1)
.0018	715P182916L	1.25 (31.8)	.34 (8.6)	.38 (9.7)	.0018	715P182920L	1.25 (31.8)	.34 (8.6)	.38 (9.7)
.0022	715P222916L	1.25 (31.8)	.35 (8.9)	.39 (9.9)	.0022	715P222920L	1.25 (31.8)	.35 (8.9)	.39 (9.9)
.0027	715P272916L	1.25 (31.8)	.38 (9.7)	.42 (10.7)	.0027	715P272920L	1.25 (31.8)	.38 (9.7)	.42 (10.7)
.0033	715P332916L	1.25 (31.8)	.40 (10.2)	.44 (11.2)	.0033	715P332920L	1.25 (31.8)	.40 (10.2)	.44 (11.2)
.0039	715P392916L	1.25 (31.8)	.43 (10.9)	.47 (11.9)	.0039	715P392920L	1.25 (31.8)	.43 (10.9)	.47 (11.9)
.0047	715P472916L	1.25 (31.8)	.46 (11.7)	.50 (12.7)	.0047	715P472920L	1.25 (31.8)	.46 (11.7)	.50 (12.7)
.0056	715P562916L	1.25 (31.8)	.49 (12.4)	.53 (13.5)	.0056	715P562920L	1.25 (31.8)	.49 (12.4)	.53 (13.5)
.0068	715P682916L	1.25 (31.8)	.52 (13.2)	.56 (14.2)	.0068	715P682920L	1.25 (31.8)	.52 (13.2)	.56 (14.2)
.0082	715P822916L	1.25 (31.8)	.56 (14.2)	.60 (15.2)	.0082	715P822920L	1.25 (31.8)	.56 (14.2)	.60 (15.2)
.01	715P103916L	1.25 (31.8)	.61 (15.5)	.65 (16.5)	.01	715P103920L	1.25 (31.8)	.61 (15.5)	.65 (16.5)
.012	715P123916M	1.65 (41.9)	.54 (13.7)	.58 (14.7)	.012	715P123920M	1.65 (41.9)	.54 (13.7)	.58 (14.7)
.015	715P153916M	1.65 (41.9)	.59 (15.0)	.63 (16.0)	.015	715P153920M	1.65 (41.9)	.59 (15.0)	.63 (16.0)
.018	715P183916M	1.65 (41.9)	.63 (16.0)	.67 (17.0)	.018	715P183920M	1.65 (41.9)	.63 (16.0)	.67 (17.0)
.022	715P223916M	1.65 (41.9)	.69 (17.5)	.73 (18.5)	.022	715P223920M	1.65 (41.9)	.69 (17.5)	.73 (18.5)
.027	715P273916M	1.65 (41.9)	.74 (18.8)	.78 (19.8)	.027	715P273920M	1.65 (41.9)	.74 (18.8)	.78 (19.8)
.033	715P333916M	1.65 (41.9)	.81 (20.6)	.85 (21.6)	.033	715P333920M	1.65 (41.9)	.81 (20.6)	.85 (21.6)

¹ Shaded part numbers, when ordered as $\pm 5\%$ tolerance with D3 leads, are standard stock items available through the Sprague/Vishay Distribution Network. For complete part number add letter and number for terminal style and lead length in accordance with Ordering Information, (i.e. 715P10452LD3)

² To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

Please note:

It is not possible to list every capacitance value available for each rating, if you require a specific cap value not listed just give us a call. We will supply the details you need.

Dimensions in inches, metric (mm) in parenthesis.



Corona, Dissipation Factor Specifications

Corona Start Voltage

D-C Rating	Typical Corona Start Voltage, RMS
100	250
200	300
400, 600	325
800, 1000	600
1200	625
1600, 2000	650

Maximum Dissipation Factor (D.F.) in %

Cap Range (μF)	100V-600V		800V/1000V		1200V		1600V/2000V	
	20KHz	100KHz	20KHz	100KHz	20KHz	100KHz	20KHz	100KHz
.001 - .01	.029	.040	.039	.088	.035	.068	.033	.059
.012 - .022	.031	.050	.040	.098	.043	.111	.039	.093
.027 - .047	.034	.071	.055	.175	.047	.132	.041	.102
.056 - .068	.037	.089	.058	.193	--	--	--	--
.082 - .1	.042	.116	.063	.220	--	--	--	--
.12 - .15	.049	.158	--	--	--	--	--	--
.18 - .22	.059	.217	--	--	--	--	--	--
.27 - .33	.074	.309	--	--	--	--	--	--
.39 - 47	.093	.427	--	--	--	--	--	--

For additional information on Corona and Dissipation Factor please refer to the Technical Reference section of this catalog. For more specific data or assistance with a specific application just give us a call.



dV/dt Specifications

Maximum Pulse Rise Time (dV/dt) in Volts/ μ sec

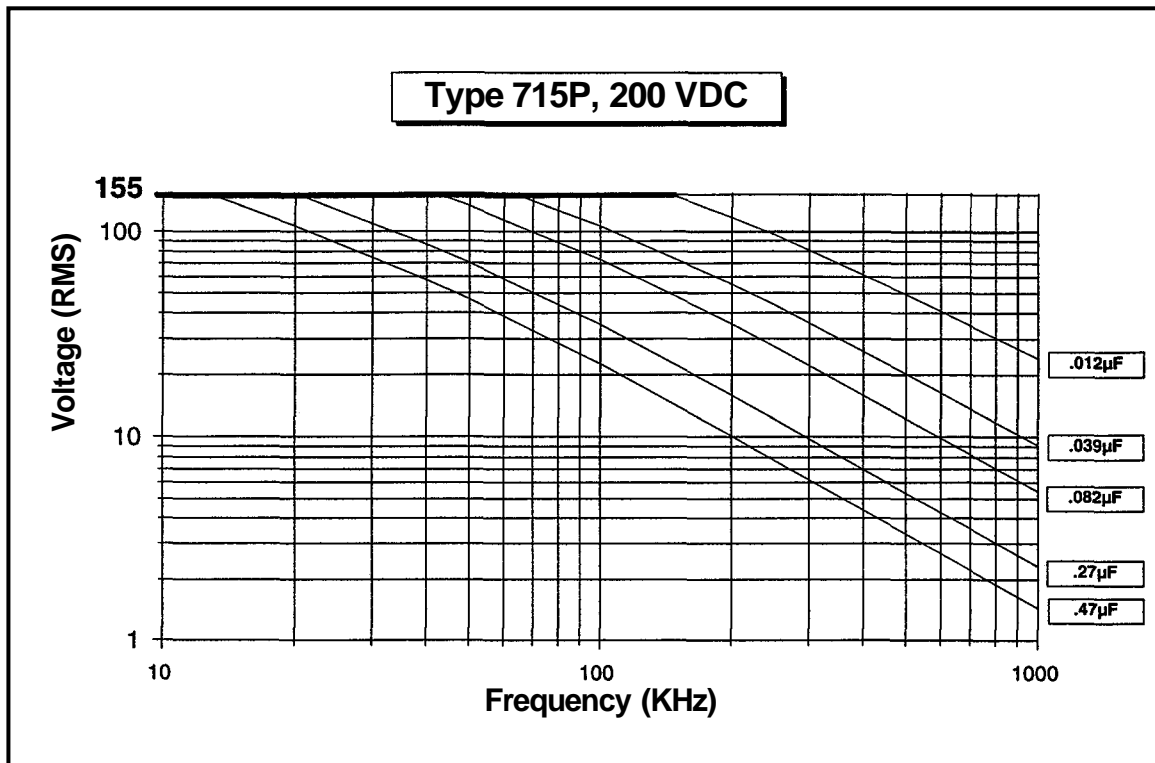
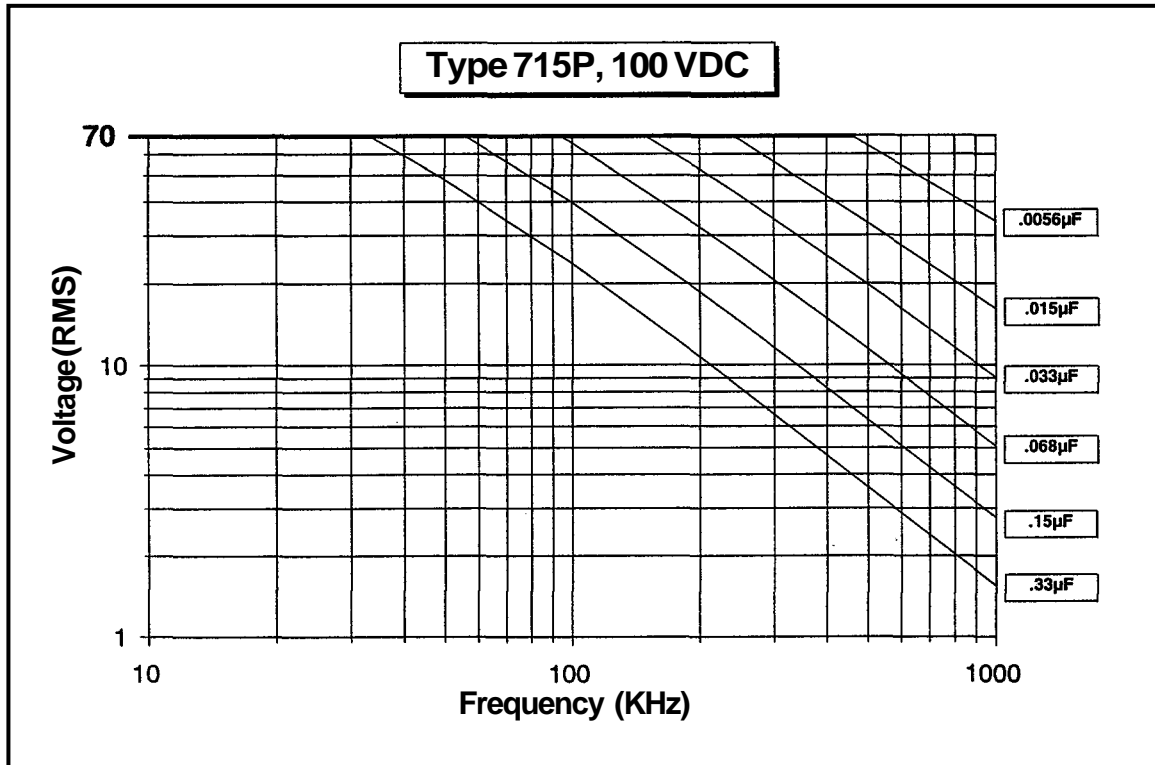
Cap Value (μ F)	100V	200V	400V	600V	800V/ 1000V	1200V	1600V/ 2000V
.001	-	-	19900	19900	-	43200	43200
.0012	-	-	18200	18200	-	39500	39500
.0015	-	-	16200	16200	-	35300	35300
.0018	-	-	14800	14800	-	32200	32200
.0022	-	-	13400	13400	-	29100	29100
.0027	-	-	12100	12100	-	25000	26300
.0033	-	-	11000	11000	-	22600	23800
.0039	-	-	10100	10100	-	20800	21900
.0047	-	-	9200	9200	-	18900	19900
.0056	4900	-	8400	8400	16400	17400	18300
.0068	4500	-	7600	7600	14900	15700	16600
.0082	4100	-	6900	6500	13600	14300	15100
.01	3700	4400	6300	5900	12300	13000	13700
.012	3400	4100	5700	5400	11200	11900	11600
.015	3000	3600	5100	4800	10000	10600	10300
.018	2800	3300	4400	4400	9200	9000	9400
.022	2500	3000	4000	4000	8300	8100	8500
.027	2200	2700	3600	3300	7500	7300	7700
.033	2000	2400	3200	3000	6800	6600	7000
.039	1900	2100	2800	2800	6200	6100	-
.047	1700	1900	2500	2500	5300	5600	-
.056	1500	1800	2300	2300	4800	-	-
.068	1300	1600	2100	2100	4400	-	-
.082	1200	1400	1900	1900	4000	-	-
.1	1100	1200	1700	1700	3600	-	-
.12	900	1100	1600	1500	-	-	-
.15	800	1000	1400	1300	-	-	-
.18	800	910	1200	1200	-	-	-
.22	700	820	1100	1100	-	-	-
.27	600	690	970	-	-	-	-
.33	500	620	880	-	-	-	-
.39	-	570	810	-	-	-	-
.47	-	520	740	-	-	-	-

Note: dV/dt ratings based on measurements made at junction of the wire leads and capacitor body.

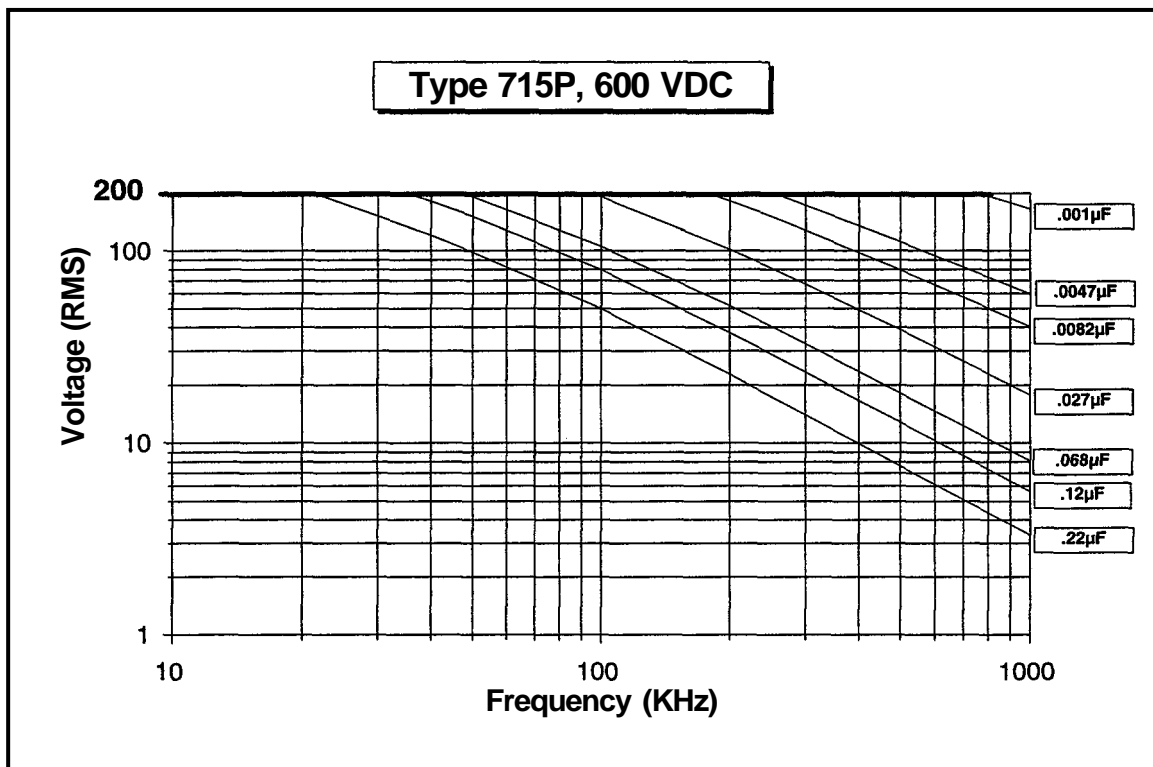
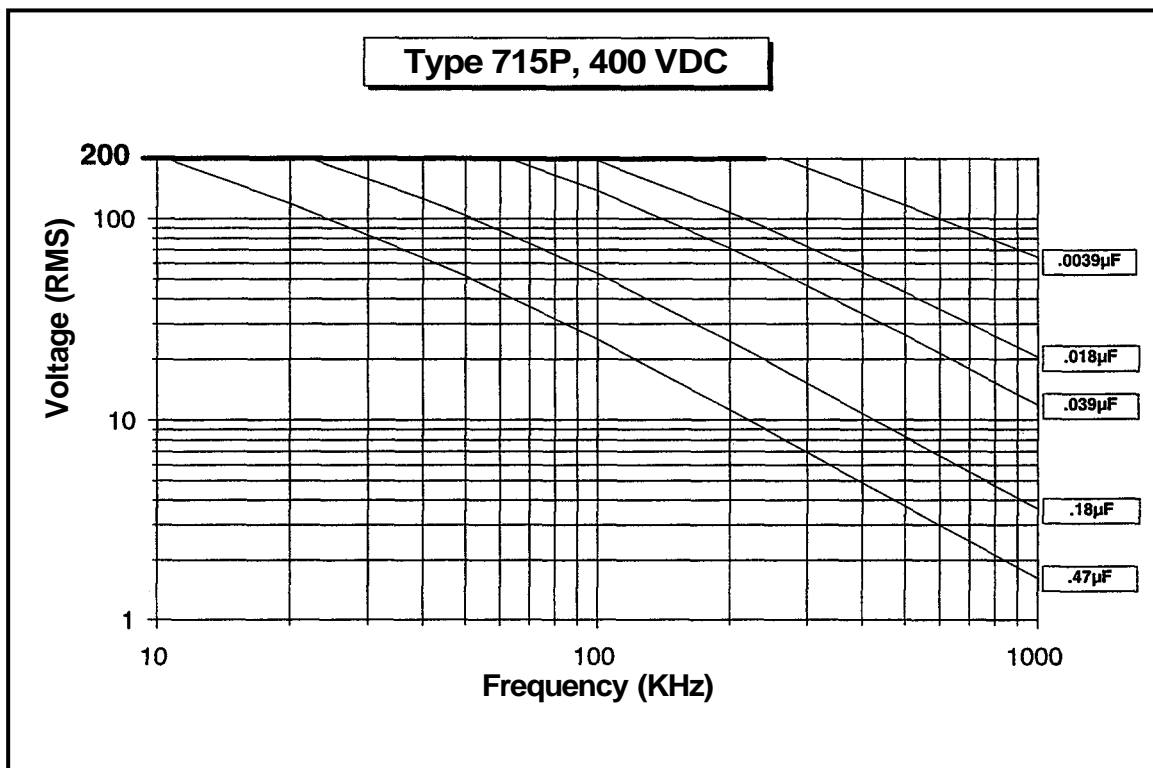
For additional information on Pulse Rise Time (dV/dt) please refer to the Technical Reference section of this catalog. For more specific data or assistance with a specific application just give us a call.



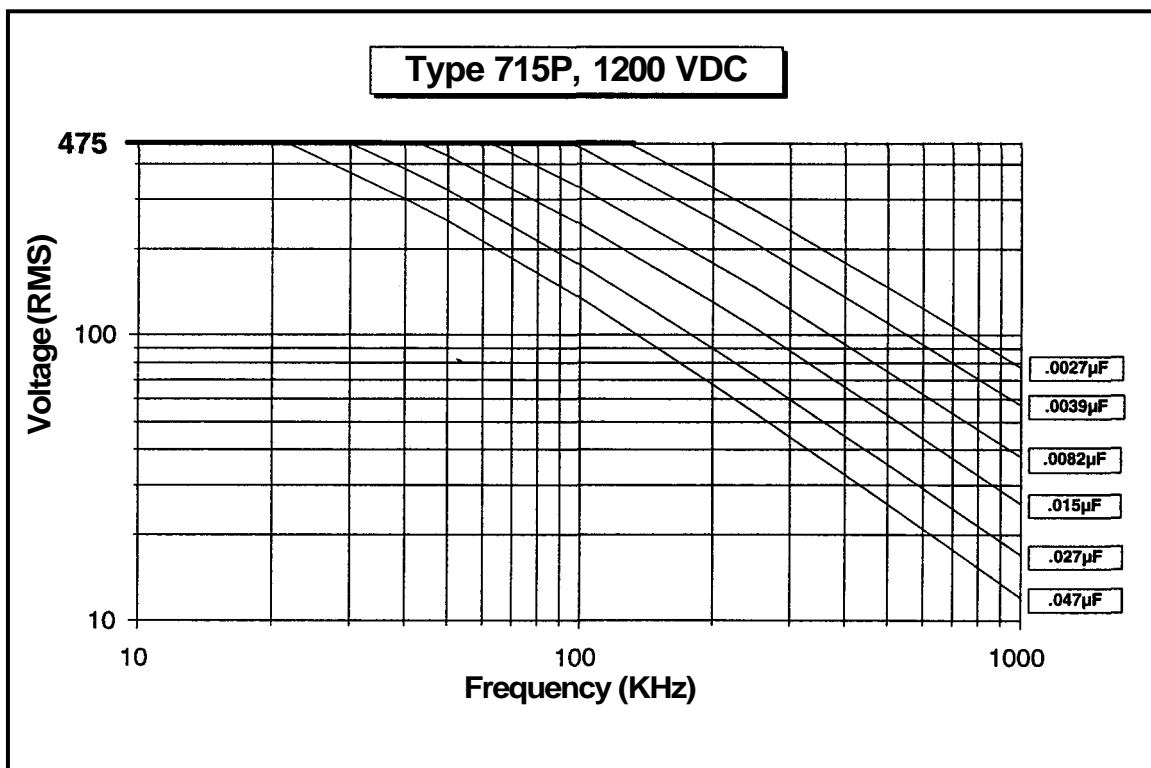
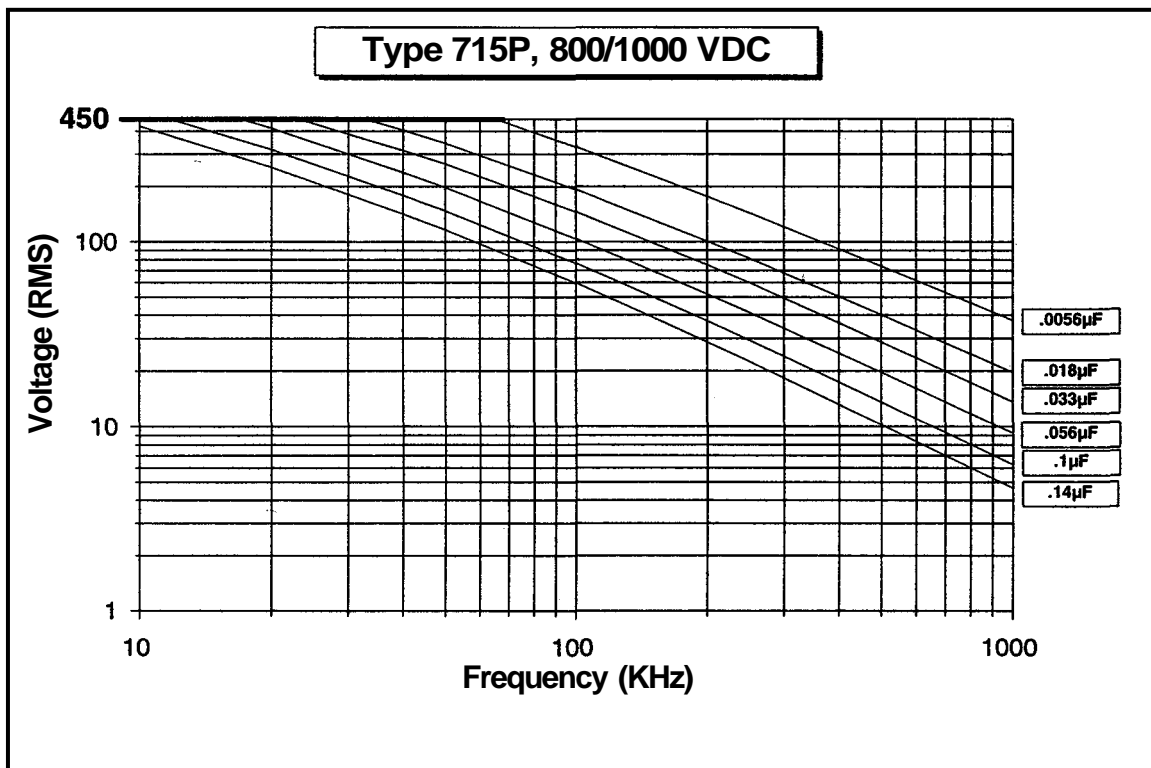
RMS Voltage vs. Frequency @ +85°C



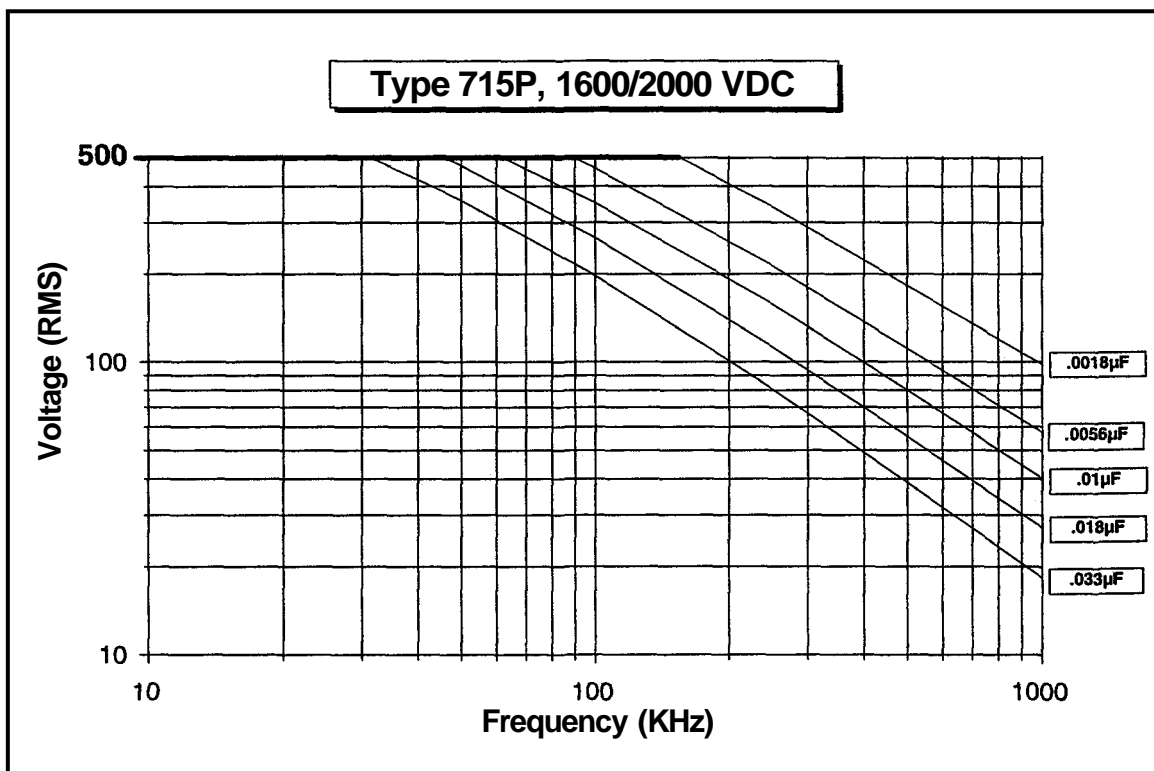
RMS Voltage vs. Frequency @ +85°C



RMS Voltage vs. Frequency @ +85°C



RMS Voltage vs. Frequency @ +85°C



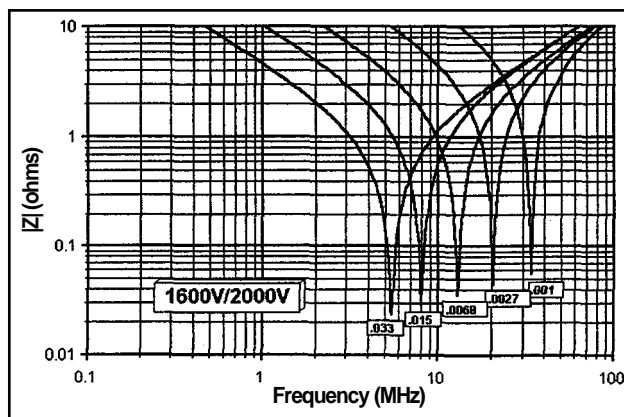
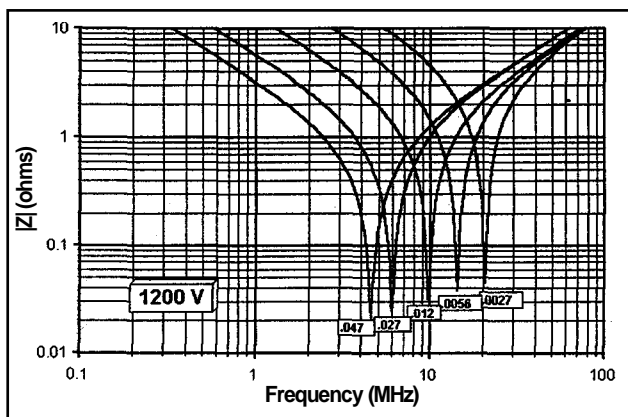
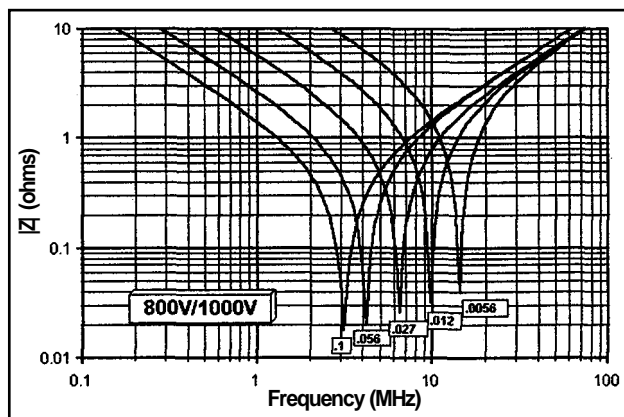
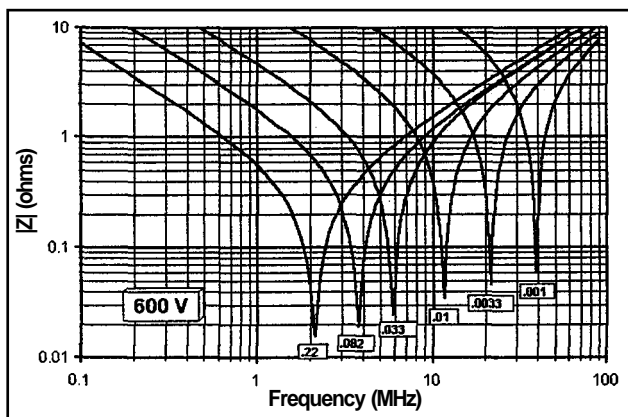
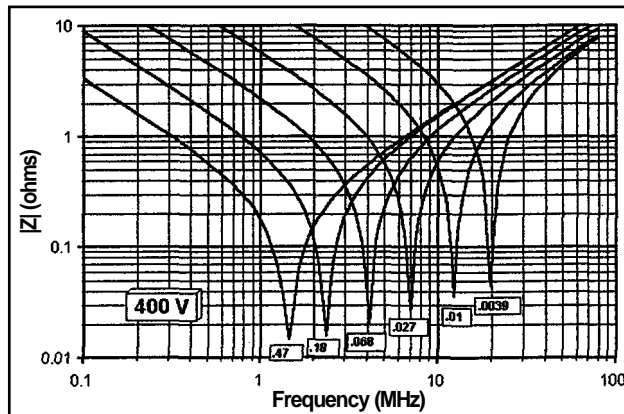
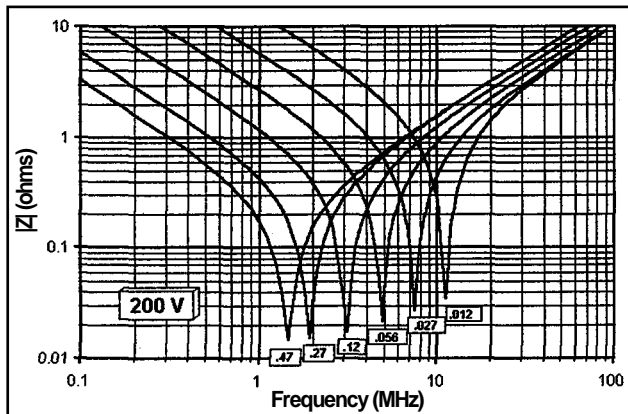


SBE

Type 715P

Polypropylene Film/Foil Capacitors

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" lead length and are typical values only. Please contact us for data on the 100VDC rated units.





SBE

Type 716P

Polypropylene Film/Foil Capacitors

Type 716P Orange Drop[®] High Performance Polypropylene Film/Foil Capacitors

Features

- Copper leads.
- Extremely low dissipation factor.
- Superb high frequency response.
- Excellent stability, virtually linear temperature coefficient.
- Various lead spacings, crimp styles and lead lengths available.

Specifications

Capacitance Range:
220 pF to 1.0 μ F

Capacitance Tolerance:
 $\pm 3\%$ to $\pm 10\%$

Voltage Ratings:
100 to 2000 Volts D-C
70 to 500 Volts A-C

Operating Temperature Range:
-55°C to +85°C
(+105°C with proper voltage derating)

Lead Wire:
Tinned copper.

Dissipation Factor:
See tabulated data.



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 tabulated data.

Corona Start Voltage (typical):
See tabulated data.

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

Dielectric:
Polypropylene film.

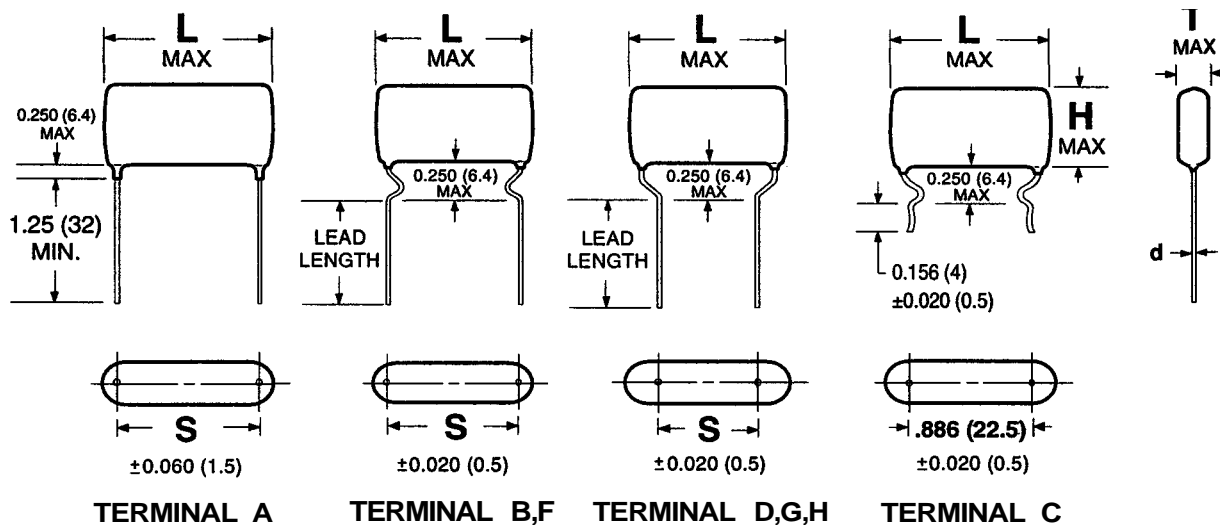
Construction:
Non-inductively wound with extended foil. Additional details on general specifications page.

Applications:
Switching and high voltage power supplies, inverters, snubbers, resonant converters and electronic lighting ballasts.

Type 716P
Polypropylene



Standard Lead Styles



Standard Lead Spacings

CASE CODE	S, inches (metric, mm in parentheses)						
	Term. A	Term. B	Term. D	Term. C *	Term. F	Term. G	Term. H
N	0.394 (10)	0.394 (10)	---	---	0.295 (7.5)	0.197 (5)	---
J	0.500 (12.7)	0.500 (12.7)	0.375 (9.5)	---	0.394 (10)	0.295 (7.5)	0.197 (5)
K	0.688 (17.5)	0.688 (17.5)	0.375 (9.5)	---	0.590 (15)	0.394 (10)	0.295 (7.5)
L	1.031 (26.2)	0.969 (24.6)	0.719 (18.3)	0.886 (22.5)	0.886 (22.5)	0.590 (15)	---
M	1.406 (35.7)	1.344 (34.1)	1.094 (27.8)	---	---	1.083 (27.5)	---

* Terminal C is designed for printed circuit boards requiring a lead spacing of 0.886 (22.5) with board hole sizes of 0.044 (1.1) to 0.048 (1.2) in diameter. Available for "L" case code parts only. Please consult us if you have a specific requirement.

Standard Marking Format

Sample Marking on unit

SBE716P600V
222J 9810

Description

SBE SB Electronics identification
716P Type number
600V D-C Voltage rating, Volts
222J Capacitance and tolerance code
9810 Weekly date code
(i.e. 10th week of 1998)

Tolerance codes per EIA Standards

H ±3%
J ±5%
K ±10%

Type 716P Standard Sizes/Ratings²

Value μF	Part Number ¹	L max	T max	H max	d	Value μF	Part Number ¹	L max	T max	H max	d
100 VDC / 70 VAC*						200 VDC / 155 VAC*					
.0082	716P82291N	.57 (14.5)	.23 (5.8)	.36 (9.1)	.032 (0.8)	.18	716P18492L	1.25 (31.8)	.39 (9.9)	.67 (17.0)	.040 (1.0)
.009	716P90291N	.57 (14.5)	.24 (6.1)	.37 (9.4)	.032 (0.8)	.22	716P22492L	1.25 (31.8)	.43 (10.9)	.71 (18.0)	.040 (1.0)
.01	716P10391N	.57 (14.5)	.24 (6.1)	.38 (9.7)	.032 (0.8)	.27	716P27492L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.040 (1.0)
.012	716P12391N	.57 (14.5)	.23 (5.8)	.37 (9.4)	.032 (0.8)	.33	716P33492L	1.25 (31.8)	.47 (11.9)	.86 (21.8)	.040 (1.0)
.015	716P15391N	.57 (14.5)	.25 (6.4)	.39 (9.9)	.032 (0.8)	.39	716P39492L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.040 (1.0)
.018	716P18391N	.57 (14.5)	.26 (6.6)	.42 (10.7)	.032 (0.8)	.47	716P47492L	1.25 (31.8)	.56 (14.2)	.95 (24.1)	.040 (1.0)
						.56	716P56492L	1.25 (31.8)	.61 (15.5)	1.00 (25.4)	.040 (1.0)
.022	716P22391N	.57 (14.5)	.28 (7.1)	.44 (11.2)	.032 (0.8)						
.025	716P25391N	.57 (14.5)	.29 (7.4)	.45 (11.4)	.032 (0.8)	.68	716P68492M	1.65 (41.9)	.56 (14.2)	.94 (23.9)	.040 (1.0)
.027	716P27391N	.57 (14.5)	.27 (6.9)	.50 (12.7)	.032 (0.8)	.82	716P82492M	1.65 (41.9)	.61 (15.5)	1.00 (25.4)	.040 (1.0)
.033	716P33391N	.57 (14.5)	.29 (7.4)	.53 (13.5)	.032 (0.8)	1.0	716P10592M	1.65 (41.9)	.68 (17.3)	1.07 (27.2)	.040 (1.0)
.039	716P39391N	.57 (14.5)	.31 (7.9)	.55 (14.0)	.032 (0.8)						
.047	716P47391N	.57 (14.5)	.34 (8.6)	.58 (14.7)	.032 (0.8)						
						400 VDC / 200 VAC*					
.05	716P50391J	.70 (17.8)	.28 (7.1)	.52 (13.2)	.032 (0.8)	.001	716P10294J	.70 (17.8)	.25 (6.4)	.47 (11.9)	.032 (0.8)
.056	716P56391J	.70 (17.8)	.29 (7.4)	.53 (13.5)	.032 (0.8)	.0012	716P12294J	.70 (17.8)	.22 (5.6)	.44 (11.2)	.032 (0.8)
.062	716P62391J	.70 (17.8)	.31 (7.9)	.54 (13.7)	.032 (0.8)	.0015	716P15294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.068	716P68391J	.70 (17.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)	.0018	716P18294J	.70 (17.8)	.25 (6.4)	.46 (11.7)	.032 (0.8)
.075	716P75391J	.70 (17.8)	.33 (8.4)	.57 (14.5)	.032 (0.8)	.0022	716P22294J	.70 (17.8)	.26 (6.6)	.48 (12.2)	.032 (0.8)
.082	716P82391J	.70 (17.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)	.0027	716P27294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.09	716P90391J	.70 (17.8)	.36 (9.1)	.60 (15.2)	.032 (0.8)	.0033	716P33294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.1	716P10491J	.70 (17.8)	.38 (9.7)	.62 (15.7)	.032 (0.8)						
						.0039	716P39294J	.70 (17.8)	.24 (6.1)	.36 (9.1)	.032 (0.8)
.12	716P12491K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)	.0047	716P47294J	.70 (17.8)	.25 (6.4)	.37 (9.4)	.032 (0.8)
.15	716P15491K	.90 (22.9)	.37 (9.4)	.61 (15.5)	.032 (0.8)	.0056	716P56294J	.70 (17.8)	.24 (6.1)	.44 (11.2)	.032 (0.8)
.18	716P18491K	.90 (22.9)	.40 (10.2)	.64 (16.3)	.032 (0.8)	.0068	716P68294J	.70 (17.8)	.24 (6.1)	.44 (11.2)	.032 (0.8)
.20	716P20491K	.90 (22.9)	.42 (10.7)	.66 (16.8)	.032 (0.8)	.0082	716P82294J	.70 (17.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)
.22	716P22491K	.90 (22.9)	.44 (11.2)	.68 (17.3)	.032 (0.8)	.01	716P10394J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)
.25	716P25491K	.90 (22.9)	.47 (11.9)	.71 (18.0)	.032 (0.8)	.012	716P12394J	.70 (17.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)
.27	716P27491K	.90 (22.9)	.49 (12.4)	.73 (18.5)	.032 (0.8)	.015	716P15394J	.70 (17.8)	.31 (7.9)	.50 (12.7)	.032 (0.8)
.30	716P30491L	1.25 (31.8)	.41 (10.4)	.65 (16.5)	.040 (1.0)	.018	716P18394K	.90 (22.9)	.28 (7.1)	.47 (11.9)	.032 (0.8)
.33	716P33491L	1.25 (31.8)	.42 (10.7)	.67 (17.0)	.040 (1.0)	.022	716P22394K	.90 (22.9)	.30 (7.6)	.49 (12.4)	.032 (0.8)
200 VDC / 155 VAC*						.027	716P27394K	.90 (22.9)	.31 (7.9)	.55 (14.0)	.032 (0.8)
.01	716P10392J	.70 (17.8)	.25 (6.4)	.37 (9.4)	.032 (0.8)	.033	716P33394K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)
.012	716P12392J	.70 (17.8)	.27 (6.9)	.39 (9.9)	.032 (0.8)	.039	716P39394K	.90 (22.9)	.36 (9.1)	.60 (15.2)	.032 (0.8)
.015	716P15392J	.70 (17.8)	.26 (6.6)	.45 (11.4)	.032 (0.8)	.047	716P47394K	.90 (22.9)	.39 (9.9)	.62 (15.7)	.032 (0.8)
.018	716P18392J	.70 (17.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)	.056	716P56394K	.90 (22.9)	.40 (10.2)	.68 (17.3)	.032 (0.8)
.022	716P22392J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)	.068	716P68394K	.90 (22.9)	.43 (10.9)	.72 (18.3)	.032 (0.8)
.027	716P27392J	.70 (17.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)	.082	716P82394L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.040 (1.0)
.033	716P33392J	.70 (17.8)	.32 (8.1)	.51 (13.0)	.032 (0.8)	.1	716P10494L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.040 (1.0)
.039	716P39392J	.70 (17.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)	.12	716P12494L	1.25 (31.8)	.45 (11.4)	.73 (18.5)	.040 (1.0)
.047	716P47392J	.70 (17.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)	.15	716P15494L	1.25 (31.8)	.46 (11.7)	.84 (21.3)	.040 (1.0)
						.18	716P18494L	1.25 (31.8)	.50 (12.7)	.89 (22.6)	.040 (1.0)
.056	716P56392K	.90 (22.9)	.30 (7.6)	.55 (14.0)	.032 (0.8)	.22	716P22494L	1.25 (31.8)	.57 (14.5)	.95 (24.1)	.040 (1.0)
.068	716P68392K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)	.27	716P27494L	1.25 (31.8)	.63 (16.0)	1.01 (25.7)	.040 (1.0)
.082	716P82392K	.90 (22.9)	.36 (9.1)	.60 (15.2)	.032 (0.8)						
.1	716P10492K	.90 (22.9)	.39 (9.9)	.63 (16.0)	.032 (0.8)	.33	716P33494M	1.65 (41.9)	.57 (14.5)	.96 (24.4)	.040 (1.0)
.12	716P12492K	.90 (22.9)	.40 (10.2)	.69 (17.5)	.032 (0.8)	.39	716P39494M	1.65 (41.9)	.62 (15.7)	1.01 (25.7)	.040 (1.0)
.15	716P15492K	.90 (22.9)	.45 (11.4)	.73 (18.5)	.032 (0.8)	.47	716P47494M	1.65 (41.9)	.68 (17.3)	1.07 (27.2)	.040 (1.0)

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

¹ To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

² Type 716P capacitors are available through the Sprague/Vishay Distribution Network on special order.

Dimensions in inches, metric (mm) in parenthesis.



Type 716P Standard Sizes/Ratings²

Value µF	Part Number ¹	L max	T max	H max	d	Value µF	Part Number ¹	L max	T max	H max	d
600 VDC / 200 VAC*						1000 VDC / 450 VAC*					
.001	716P10296J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)	.0056	716P562910L	1.25 (31.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)
.0012	716P12296J	.70 (17.8)	.24 (6.1)	.44 (11.2)	.032 (0.8)	.0068	716P682910L	1.25 (31.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)
.0015	716P15296J	.70 (17.8)	.26 (6.6)	.45 (11.4)	.032 (0.8)	.0082	716P822910L	1.25 (31.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)
.0018	716P18296J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)	.01	716P103910L	1.25 (31.8)	.29 (7.4)	.53 (13.5)	.032 (0.8)
.0022	716P22296J	.70 (17.8)	.28 (7.1)	.48 (12.2)	.032 (0.8)	.012	716P123910L	1.25 (31.8)	.31 (7.9)	.55 (14.0)	.032 (0.8)
.0027	716P27296J	.70 (17.8)	.25 (6.4)	.44 (11.2)	.032 (0.8)						
.0033	716P33296J	.70 (17.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)	.015	716P153910L	1.25 (31.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)
.0039	716P39296J	.70 (17.8)	.26 (6.6)	.46 (11.7)	.032 (0.8)	.018	716P183910L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)
.0047	716P47296J	.70 (17.8)	.28 (7.1)	.47 (11.9)	.032 (0.8)	.022	716P223910L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.032 (0.8)
.0056	716P56296J	.70 (17.8)	.30 (7.6)	.49 (12.4)	.032 (0.8)	.027	716P273910L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.032 (0.8)
.0068	716P68296J	.70 (17.8)	.32 (8.1)	.51 (13.0)	.032 (0.8)						
.0082	716P82296J	.70 (17.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)	.033	716P333910L	1.25 (31.8)	.46 (11.7)	.74 (18.8)	.032 (0.8)
.01	716P10396J	.70 (17.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)	.039	716P393910L	1.25 (31.8)	.46 (11.7)	.84 (21.3)	.032 (0.8)
						.047	716P473910L	1.25 (31.8)	.50 (12.7)	.88 (22.4)	.032 (0.8)
.012	716P12396K	.90 (22.9)	.31 (7.9)	.55 (14.0)	.032 (0.8)	.056	716P563910L	1.25 (31.8)	.54 (13.7)	.93 (23.6)	.032 (0.8)
.015	716P15396K	.90 (22.9)	.34 (8.6)	.58 (14.7)	.032 (0.8)	.068	716P683910L	1.25 (31.8)	.59 (15.0)	.98 (24.9)	.032 (0.8)
.018	716P18396K	.90 (22.9)	.36 (9.1)	.60 (15.2)	.032 (0.8)						
.022	716P22396K	.90 (22.9)	.39 (9.9)	.63 (16.0)	.032 (0.8)	.082	716P823910M	1.65 (41.9)	.52 (13.2)	.90 (22.9)	.040 (1.0)
.027	716P27396K	.90 (22.9)	.41 (10.4)	.69 (17.5)	.032 (0.8)	.1	716P104910M	1.65 (41.9)	.57 (14.5)	.96 (24.4)	.040 (1.0)
.033	716P33396K	.90 (22.9)	.44 (11.2)	.73 (18.5)	.032 (0.8)	.12	716P124910M	1.65 (41.9)	.62 (15.7)	1.01 (25.7)	.040 (1.0)
.039	716P39396K	.90 (22.9)	.48 (12.2)	.76 (19.3)	.032 (0.8)	.14	716P144910M	1.65 (41.9)	.67 (17.0)	1.06 (27.0)	.040 (1.0)
.047	716P47396L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.040 (1.0)	1200 VDC / 475 VAC*					
.056	716P56396L	1.25 (31.8)	.45 (11.4)	.73 (18.5)	.040 (1.0)	.001	716P102912L	1.25 (31.8)	.23 (5.8)	.45 (11.4)	.032 (0.8)
.068	716P68396L	1.25 (31.8)	.45 (11.4)	.84 (21.3)	.040 (1.0)	.0012	716P122912L	1.25 (31.8)	.24 (6.1)	.46 (11.7)	.032 (0.8)
.082	716P82396L	1.25 (31.8)	.49 (12.4)	.88 (22.4)	.040 (1.0)	.0015	716P152912L	1.25 (31.8)	.25 (6.4)	.47 (11.9)	.032 (0.8)
.1	716P10496L	1.25 (31.8)	.54 (13.7)	.93 (23.6)	.040 (1.0)	.0018	716P182912L	1.25 (31.8)	.27 (6.9)	.49 (12.4)	.032 (0.8)
.12	716P12496L	1.25 (31.8)	.59 (15.0)	.97 (24.6)	.040 (1.0)	.0022	716P222912L	1.25 (31.8)	.29 (7.4)	.51 (13.0)	.032 (0.8)
.15	716P15496M	1.65 (41.9)	.55 (14.0)	.93 (23.6)	.040 (1.0)	.0027	716P272912L	1.25 (31.8)	.28 (7.1)	.48 (12.2)	.032 (0.8)
.18	716P18496M	1.65 (41.9)	.59 (15.0)	.98 (24.9)	.040 (1.0)	.0033	716P332912L	1.25 (31.8)	.30 (7.6)	.49 (12.4)	.032 (0.8)
.22	716P22496M	1.65 (41.9)	.65 (16.5)	1.04 (25.7)	.040 (1.0)	.0039	716P392912L	1.25 (31.8)	.30 (7.6)	.54 (13.7)	.032 (0.8)
						.0047	716P472912L	1.25 (31.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)
800 VDC / 450 VAC*						.0056	716P562912L	1.25 (31.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)
.0056	716P56298L	1.25 (31.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)	.0068	716P682912L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)
.0068	716P68298L	1.25 (31.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)	.0082	716P822912L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.032 (0.8)
.0082	716P82298L	1.25 (31.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)	.01	716P103912L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.032 (0.8)
.01	716P10398L	1.25 (31.8)	.29 (7.4)	.53 (13.5)	.032 (0.8)	.012	716P123912L	1.25 (31.8)	.45 (11.4)	.73 (18.5)	.032 (0.8)
.012	716P12398L	1.25 (31.8)	.31 (7.9)	.55 (14.0)	.032 (0.8)						
.015	716P15398L	1.25 (31.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)	.015	716P153912L	1.25 (31.8)	.46 (11.7)	.84 (21.3)	.032 (0.8)
.018	716P18398L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)	.018	716P183912L	1.25 (31.8)	.50 (12.7)	.88 (22.4)	.032 (0.8)
.022	716P22398L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.032 (0.8)	.022	716P223912L	1.25 (31.8)	.54 (13.7)	.93 (23.6)	.032 (0.8)
.027	716P27398L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.032 (0.8)	.027	716P273912L	1.25 (31.8)	.60 (15.2)	.99 (25.1)	.032 (0.8)
.033	716P33398L	1.25 (31.8)	.46 (11.7)	.74 (18.8)	.032 (0.8)						
.039	716P39398L	1.25 (31.8)	.46 (11.7)	.84 (21.3)	.032 (0.8)	.033	716P333912M	1.65 (41.9)	.53 (13.5)	.91 (23.1)	.040 (1.0)
.047	716P47398L	1.25 (31.8)	.50 (12.7)	.88 (22.4)	.032 (0.8)	.039	716P393912M	1.65 (41.9)	.57 (14.5)	.96 (24.4)	.040 (1.0)
.056	716P56398L	1.25 (31.8)	.54 (13.7)	.93 (23.6)	.032 (0.8)	.047	716P473912M	1.65 (41.9)	.62 (15.7)	1.01 (25.7)	.040 (1.0)
.068	716P68398L	1.25 (31.8)	.59 (15.0)	.98 (24.9)	.032 (0.8)	.056	716P563912M	1.65 (41.9)	.68 (17.3)	1.07 (27.2)	.040 (1.0)
.082	716P82398M	1.65 (41.9)	.52 (13.2)	.90 (22.9)	.040 (1.0)						
.1	716P10498M	1.65 (41.9)	.57 (14.5)	.96 (24.4)	.040 (1.0)						
.12	716P12498M	1.65 (41.9)	.62 (15.7)	1.01 (25.7)	.040 (1.0)						
.14	716P14498M	1.65 (41.9)	.67 (17.0)	1.06 (27.0)	.040 (1.0)						

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

¹ To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

² Type 716P capacitors are available through the Sprague/Vishay Distribution Network on special order.

Dimensions in inches, metric (mm) in parenthesis.



Type 716P Standard Sizes/Ratings²

Value μF	Part Number ¹	L max	T max	H max	d	Value μF	Part Number ¹	L max	T max	H max	d
1600 VDC / 500 VAC*						2000 VDC / 500 VAC*					
.001	716P102916L	1.25 (31.8)	.28 (7.1)	.47 (11.2)	.032 (0.8)	.001	716P102920L	1.25 (31.8)	.28 (7.1)	.47 (11.9)	.032 (0.8)
.0012	716P122916L	1.25 (31.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)	.0012	716P122920L	1.25 (31.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)
.0015	716P152916L	1.25 (31.8)	.30 (7.6)	.50 (12.7)	.032 (0.8)	.0015	716P152920L	1.25 (31.8)	.30 (7.6)	.50 (12.7)	.032 (0.8)
.0018	716P182916L	1.25 (31.8)	.31 (7.9)	.55 (14.0)	.032 (0.8)	.0018	716P182920L	1.25 (31.8)	.31 (7.9)	.55 (14.0)	.032 (0.8)
.0022	716P222916L	1.25 (31.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)	.0022	716P222920L	1.25 (31.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)
.0027	716P272916L	1.25 (31.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)	.0027	716P272920L	1.25 (31.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)
.0033	716P332916L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)	.0033	716P332920L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)
.0039	716P392916L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.032 (0.8)	.0039	716P392920L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.032 (0.8)
.0047	716P472916L	1.25 (31.8)	.41 (10.4)	.69 (17.5)	.032 (0.8)	.0047	716P472920L	1.25 (31.8)	.41 (10.4)	.69 (17.5)	.032 (0.8)
.0056	716P562916L	1.25 (31.8)	.43 (10.9)	.72 (18.3)	.032 (0.8)	.0056	716P562920L	1.25 (31.8)	.43 (10.9)	.72 (18.3)	.032 (0.8)
.0068	716P682916L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.032 (0.8)	.0068	716P682920L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.032 (0.8)
.0082	716P822916L	1.25 (31.8)	.47 (11.9)	.85 (21.6)	.032 (0.8)	.0082	716P822920L	1.25 (31.8)	.47 (11.9)	.85 (21.6)	.032 (0.8)
.01	716P103916L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.032 (0.8)	.01	716P103920L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.032 (0.8)
.012	716P123916L	1.25 (31.8)	.55 (14.0)	.94 (23.9)	.032 (0.8)	.012	716P123920L	1.25 (31.8)	.55 (14.0)	.94 (23.9)	.032 (0.8)
.015	716P153916M	1.65 (41.9)	.49 (12.4)	.87 (22.1)	.040 (1.0)	.015	716P153920M	1.65 (41.9)	.49 (12.4)	.87 (22.1)	.040 (1.0)
.018	716P183916M	1.65 (41.9)	.53 (13.5)	.91 (23.1)	.040 (1.0)	.018	716P183920M	1.65 (41.9)	.53 (13.5)	.91 (23.1)	.040 (1.0)
.022	716P223916M	1.65 (41.9)	.58 (14.7)	.96 (24.4)	.040 (1.0)	.022	716P223920M	1.65 (41.9)	.58 (14.7)	.96 (24.4)	.040 (1.0)
.027	716P273916M	1.65 (41.9)	.63 (16.0)	1.02 (25.9)	.040 (1.0)	.027	716P273920M	1.65 (41.9)	.63 (16.0)	1.02 (25.9)	.040 (1.0)
.033	716P333916M	1.65 (41.9)	.69 (17.5)	1.08 (27.4)	.040 (1.0)	.033	716P333920M	1.65 (41.9)	.69 (17.5)	1.08 (27.4)	.040 (1.0)

* Please refer to performance curves for RMS Voltage vs. Frequency characteristics.

¹ To complete part number for proper tolerance, terminal style and lead length please refer to Ordering/Part Number Information page.

² Type 716P capacitors are available through the Sprague/Vishay Distribution Network on special order.

Please note:

It is not possible to list every capacitance value available for each rating, if you require a specific cap value not listed just give us a call. We will supply the details you need.

Dimensions in inches, metric (mm) in parenthesis.



Corona, Dissipation Factor Specifications

Corona Start Voltage

D-C Rating	Typical Corona Start Voltage, RMS
100	250
200	300
400, 600	325
800, 1000	600
1200	625
1600, 2000	650

Maximum Dissipation Factor (D.F.) in %

Cap Range (μF)	100V-600V		800V/1000V		1200V		1600V/2000V	
	20KHz	100KHz	20KHz	100KHz	20KHz	100KHz	20KHz	100KHz
.001 - .012	.028	.034	.037	.075	.034	.064	.032	.053
.015 - .027	.029	.038	.037	.078	.035	.067	.037	.078
.033 - .068	.030	.046	.038	.087	.042	.104	.037	.079
.082 - .1	.031	.053	.048	.135	--	--	--	--
.12 - .33	.034	.076	.049	.141	--	--	--	--
.39 - .56	.038	.107	--	--	--	--	--	--
.68 - 1.0	.047	.167	--	--	--	--	--	--

For additional information on Corona and Dissipation Factor please refer to the Technical Reference section of this catalog. For more specific data or assistance with a specific application just give us a call.

dV/dt Specifications

Maximum Pulse Rise Time (dV/dt) in Volts/μsec

Cap Value (μF)	100V	200V	400V	600V	800V/ 1000V	1200V	1600V/ 2000V
.001	-	-	20700	20700	-	43200	43200
.0012	-	-	18900	18900	-	39500	39500
.0015	-	-	16900	16900	-	35300	35300
.0018	-	-	15400	15400	-	32200	32200
.0022	-	-	14000	14000	-	29100	29100
.0027	-	-	12600	12600	-	25000	26300
.0033	-	-	11400	11400	-	22600	23800
.0039	-	-	10500	10500	-	20800	21900
.0047	-	-	9500	9500	-	18900	19900
.0056	-	-	8700	8700	16400	17400	18300
.0068	-	-	7900	7900	14900	15700	16600
.0082	4100	-	7200	7200	13600	14300	15100
.01	3700	4600	6500	6500	12300	13000	13700
.012	3400	4200	6000	5400	11200	11900	12500
.015	3000	3800	5300	4800	10000	10600	10300
.018	2800	3400	4400	4400	9200	9700	9400
.022	2500	3100	4000	4000	8300	8800	8500
.027	2200	2800	3600	3600	7500	7900	7700
.033	2000	2500	3200	3200	6800	6600	7000
.039	1700	2300	3000	3000	6200	6100	-
.047	1500	2100	2700	2500	5700	5600	-
.056	1400	1800	2500	2300	5200	5100	-
.068	1300	1600	2300	2100	4700	-	-
.082	1100	1500	1900	1900	4000	-	-
.1	1000	1300	1700	1700	3600	-	-
.12	900	1200	1600	1600	3300	-	-
.15	800	1100	1400	1300	-	-	-
.18	700	910	1300	1200	-	-	-
.22	700	820	1200	1100	-	-	-
.27	600	740	1100	-	-	-	-
.33	500	670	880	-	-	-	-
.39	-	620	810	-	-	-	-
.47	-	560	740	-	-	-	-
.56	-	520	-	-	-	-	-
.68	-	430	-	-	-	-	-
.82	-	400	-	-	-	-	-
1.0	-	360	-	-	-	-	-

Note: dV/dt ratings based on measurements made at junction of the wire leads and capacitor body.

For additional information on Pulse Rise Time (dV/dt) please refer to the Technical Reference section of this catalog. For more specific data or assistance with a specific application just give us a call.

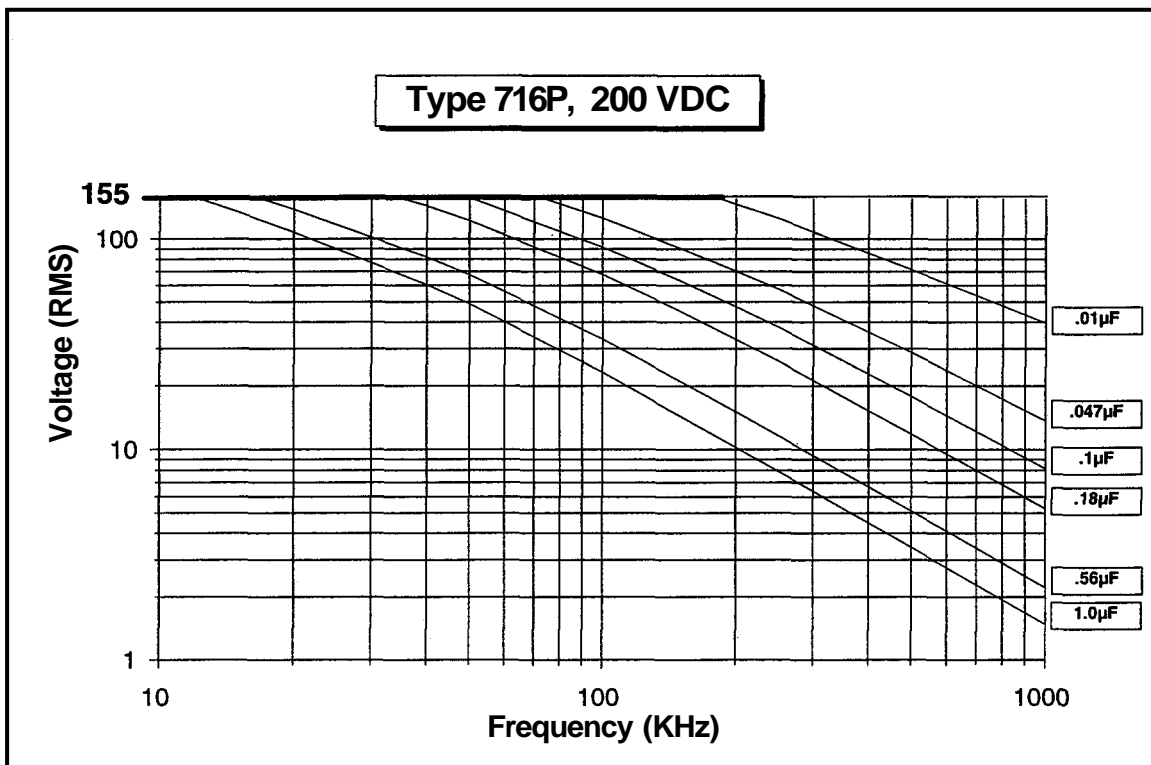
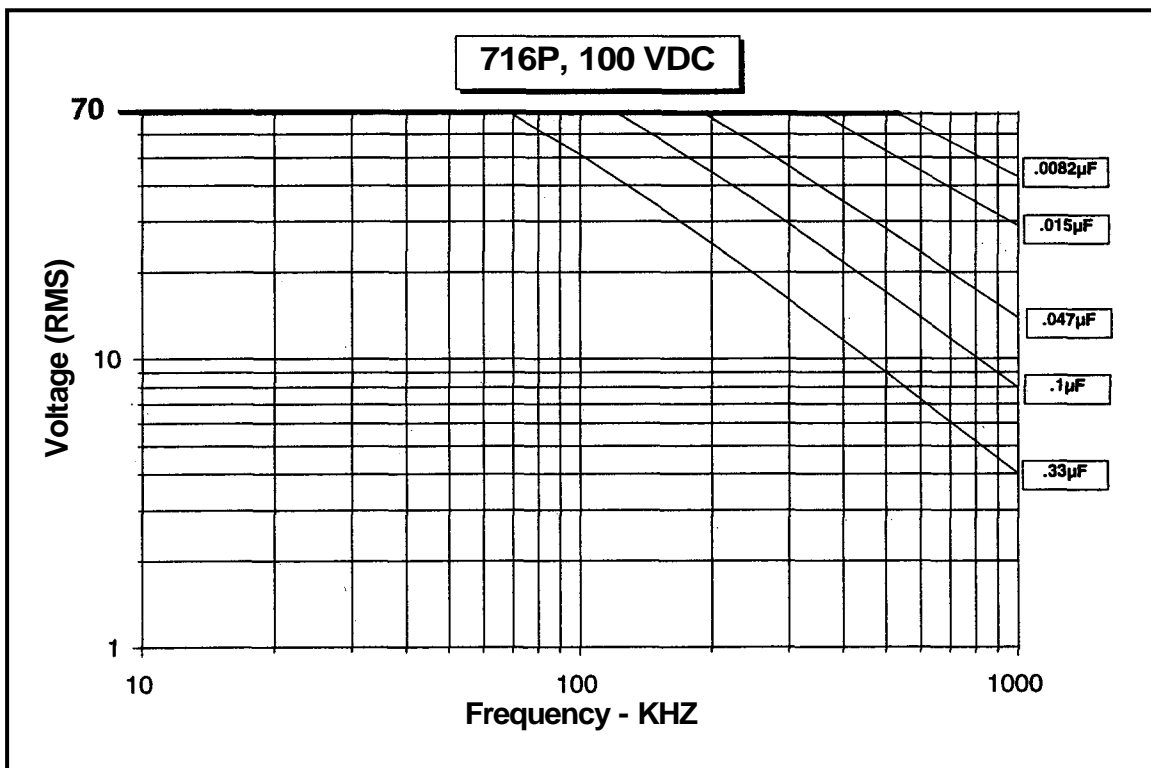


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Type 716P

Polypropylene Film/Foil Capacitors

RMS Voltage vs. Frequency @ +85°C



Type 716P
Polypropylene



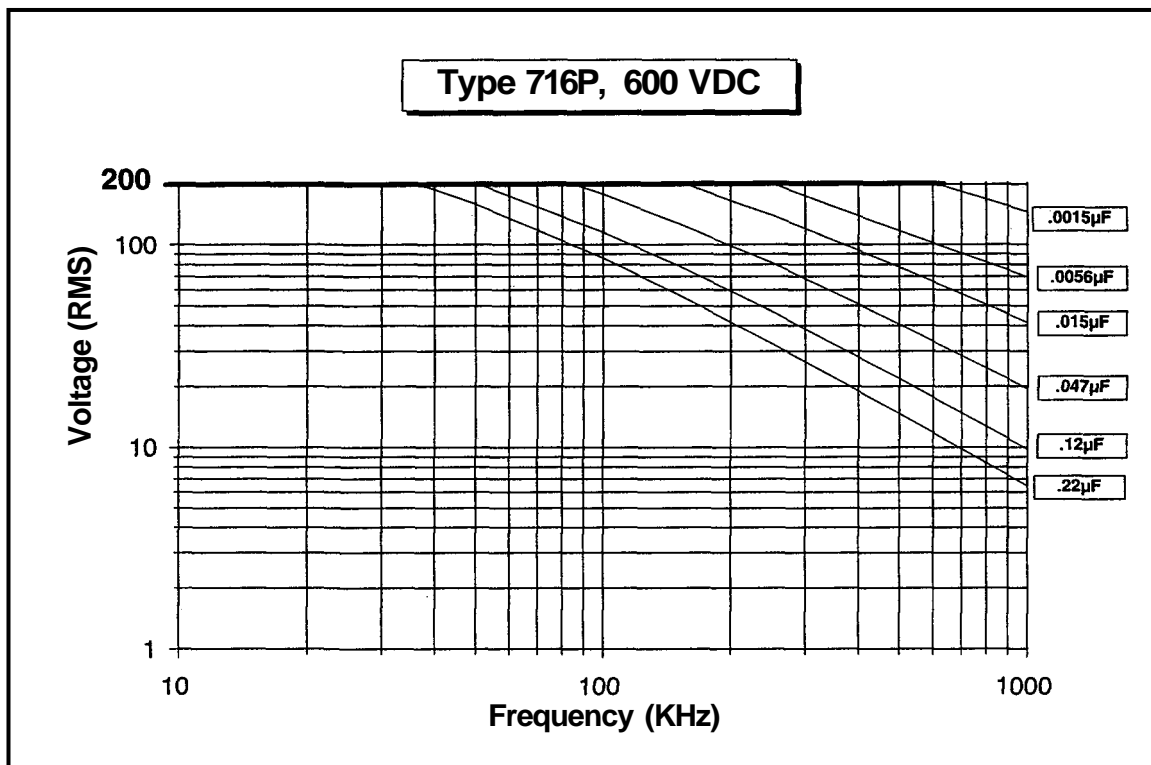
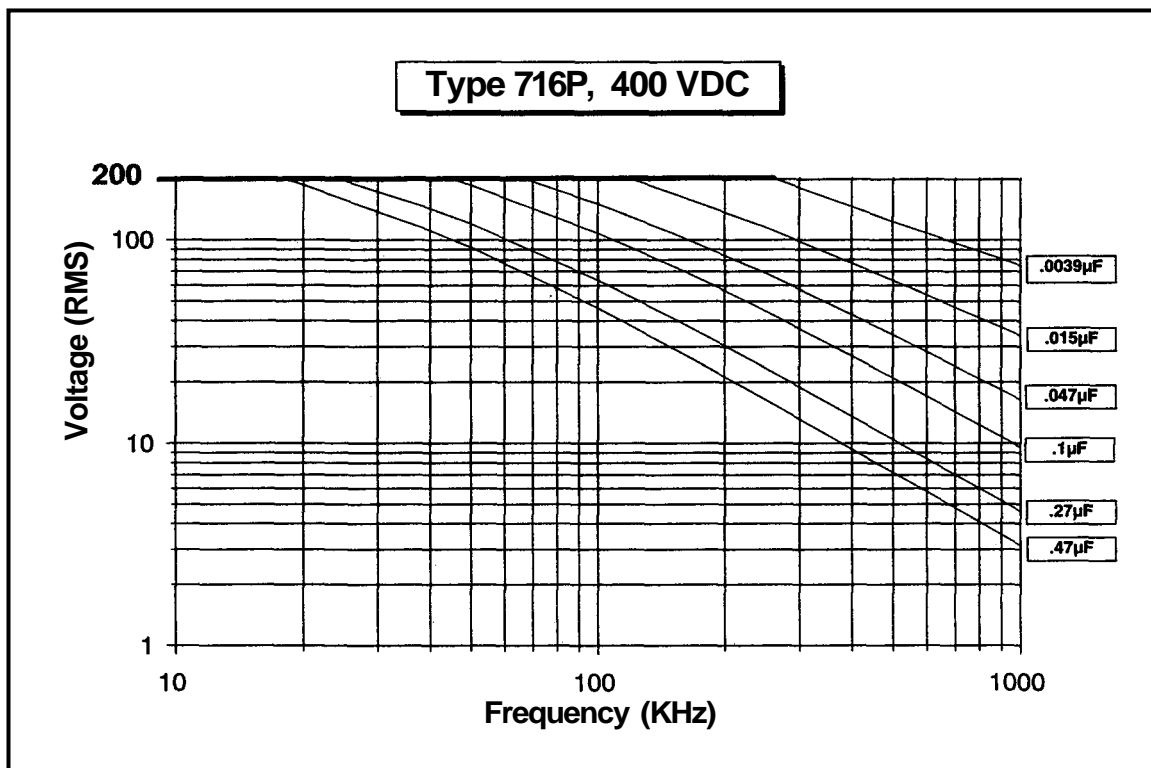


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Type 716P

Polypropylene Film/Foil Capacitors

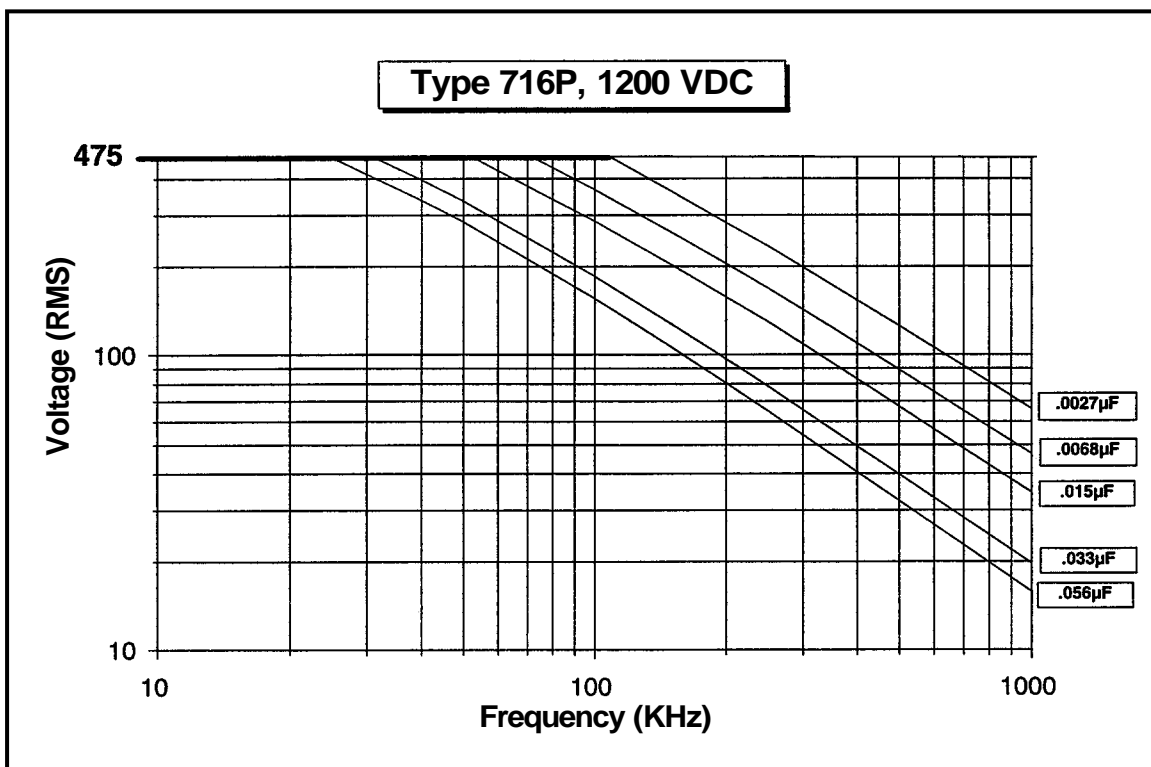
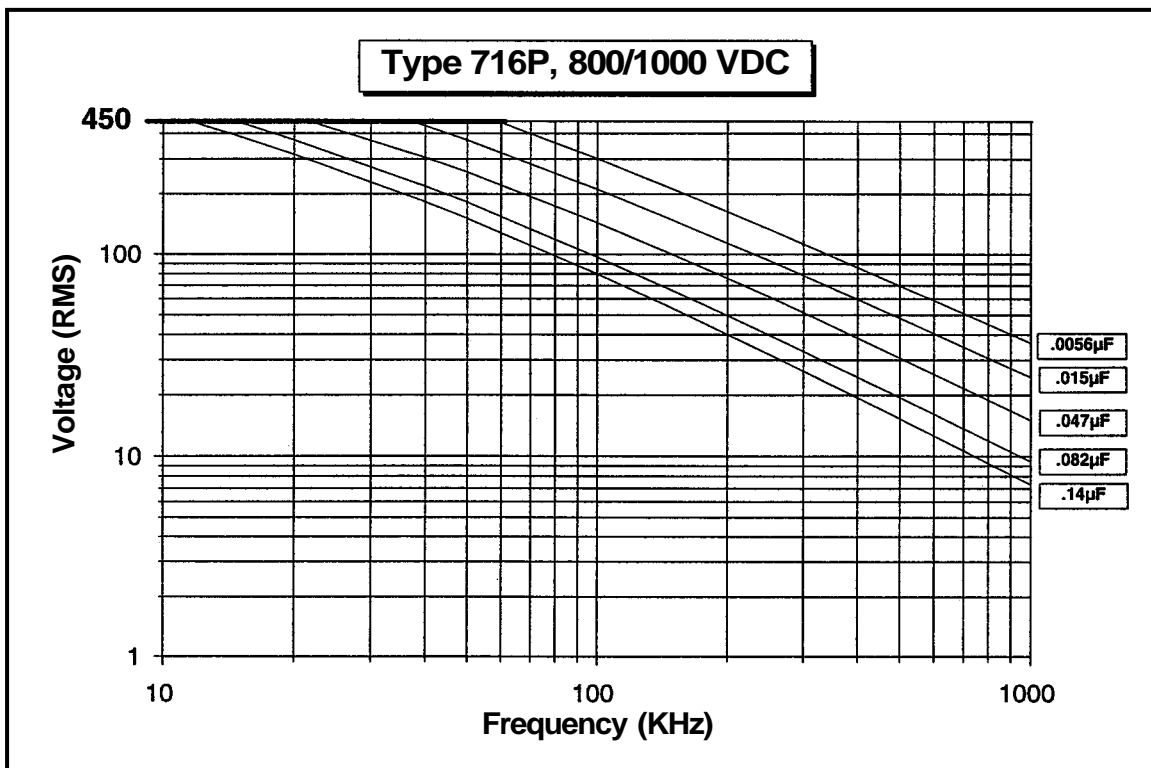
RMS Voltage vs. Frequency @ +85°C



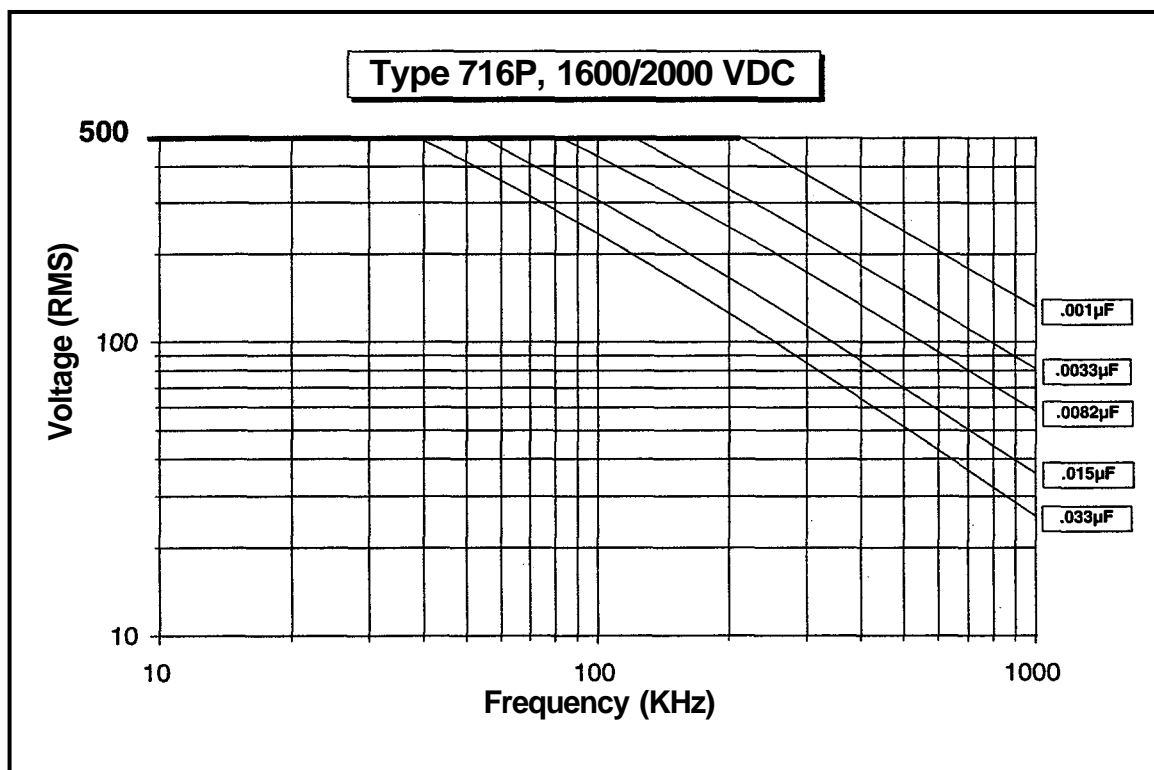
Type 716P
Polypropylene



RMS Voltage vs. Frequency @ +85°C



RMS Voltage vs. Frequency @ +85°C



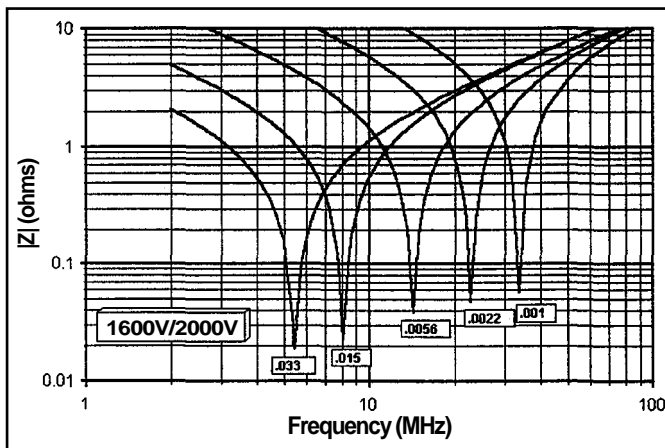
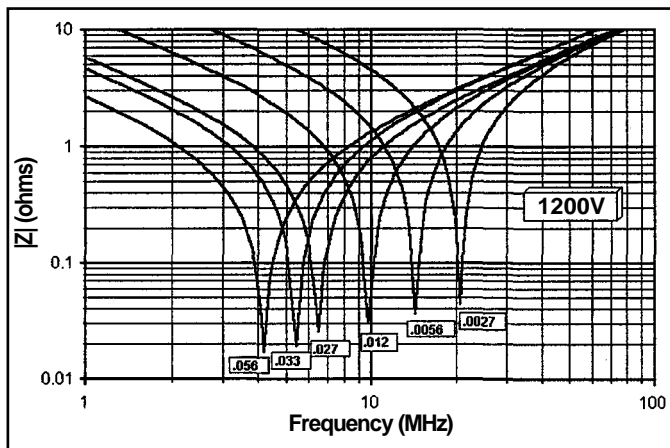
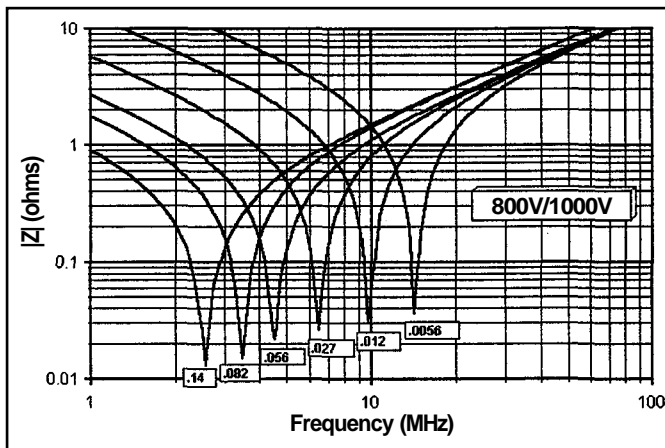
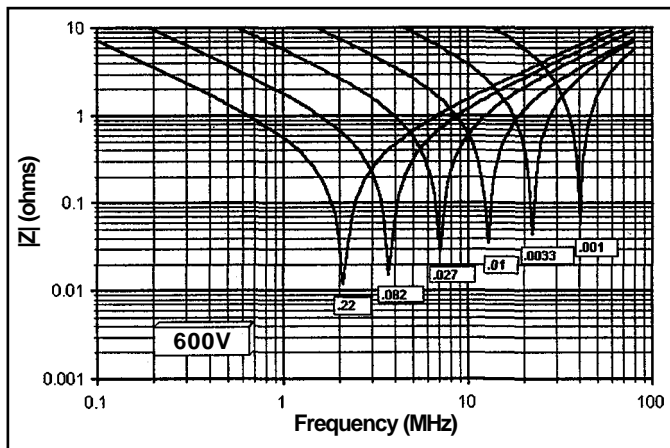
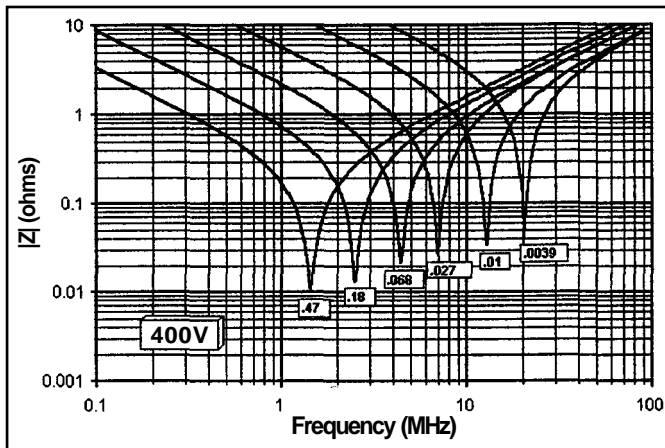
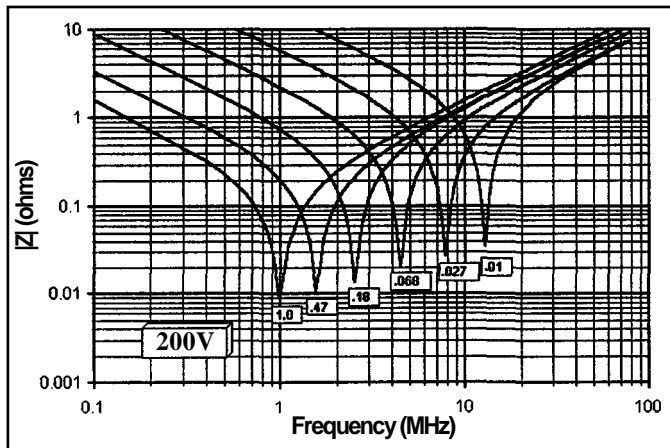


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Type 716P

Polypropylene Film/Foil Capacitors

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" lead length and are typical values only. Please contact us for data on the 100VDC rated units.

