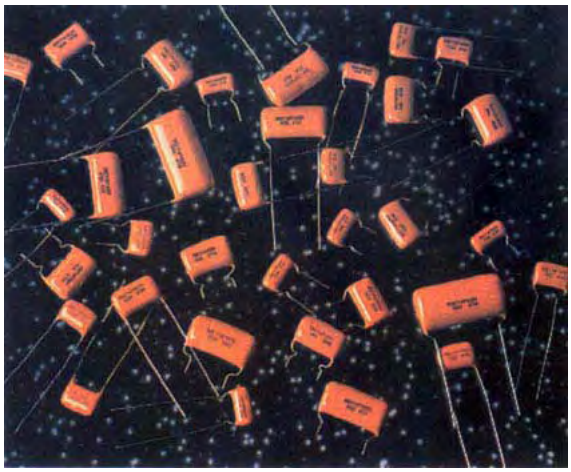
Type 716P, Orange Drop®, Polypropylene Film/Foil Capacitors

High Performance



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 µF

Capacitance Tolerance:
±3% to ±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 MΩ minimum at +25°C
20,000 MΩ minimum at +85°C
2,000 MΩ 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-0 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.

RoHS Compliant

CDE Cornell Dubilier • 1605 E. Rodney French Blvd. • New Bedford, MA 02744 • Phone: (508)996-8561 • Fax: (508)996-3830

Type 716P, Orange Drop®, Polypropylene Film/Foil Capacitors

High Performance

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 ±1%. The 716P series has a pressed profile and, in addition, is designed with copper leads, thus adding to it's 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°C. The 715P and 716P may be operated up to +105°C provided the DC working voltage is reduced by 50%.

For specific derating of the AC voltage when operating above +85°C please contact our design engineering department.

The maximum operating temperature for 715P and 716P polypropylene film capacitors is + 105°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 ppm/°C over the temperature range of -55°C to +85°C.

Humidity Testing:
Units subjected to 95% relative humidity for 72 hours with no voltage applied at +75°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°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°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.

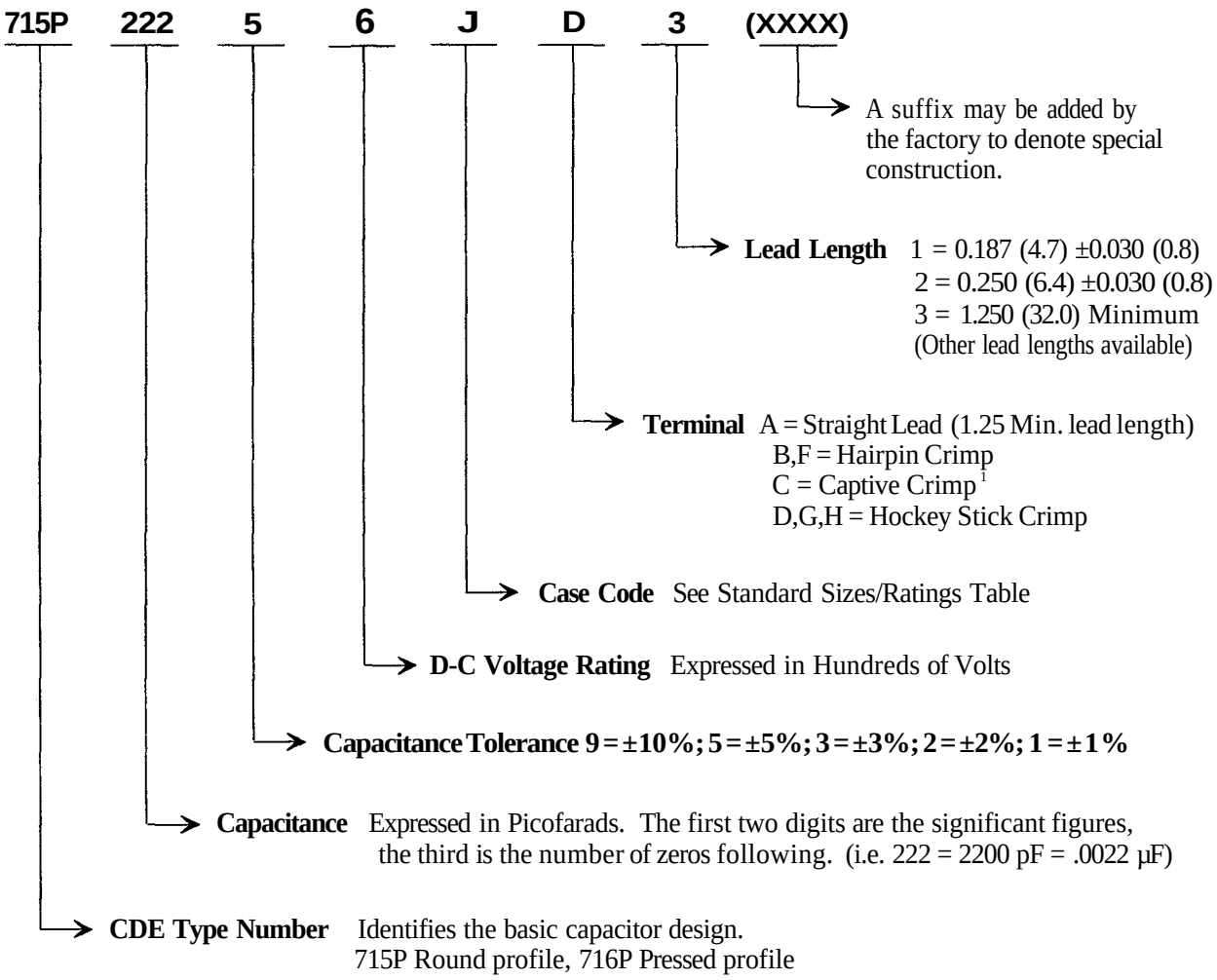
Additional notes on Life Testing:
CDE performs standard 500 hour accelerated life tests, both DC and line frequency AC, to monitor process control over our wide range of products.

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 716P, Orange Drop,® Polypropylene Film/Foil Capacitors

High Performance

Ordering/Part Number Information



[1] Terminal C has a fixed lead length of 0.156 (4.0) ±0.020 (0.5), therefore it is not necessary to indicate the lead length digit when ordering. Available for "L" case code parts only

Please note;

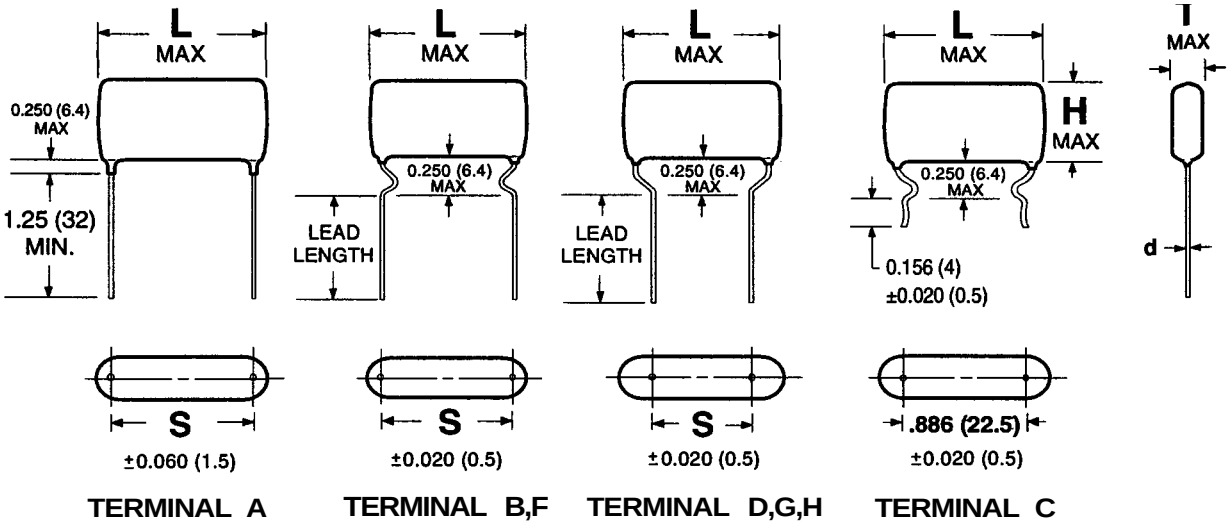
While it is not possible to list every capacitance value, tolerance, or design/size variation available, our flexibility in design and manufacturing gives us the ability to quickly, and cost effectively, provide you with the capacitor you require. Please contact us today with your specific needs!

Dimensions in inches, metric (mm) in parenthesis.

Type 716P, Orange Drop Polypropylene Film/Foil Capacitors

High Performance

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

CDE716P600V
222J 9810

Description

CDE	CDE 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%

High Performance

Type 716P Standard Sizes/Ratings[2]

Value µF	Part Number[1]	L max	T max	H max	d
100 VDC / 70 VAC*					
.0082	716P82291N	.57 (14.5)	.23 (5.8)	.36 (9.1)	.032 (0.8)
.009	716P90291N	.57 (14.5)	.24 (6.1)	.37 (9.4)	.032 (0.8)
.01	716P10391N	.57 (14.5)	.24 (6.1)	.38 (9.7)	.032 (0.8)
.012	716P12391N	.57 (14.5)	.23 (5.8)	.37 (9.4)	.032 (0.8)
.015	716P15391N	.57 (14.5)	.25 (6.4)	.39 (9.9)	.032 (0.8)
.018	716P18391N	.57 (14.5)	.26 (6.6)	.42 (10.7)	.032 (0.8)
.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)
.027	716P27391N	.57 (14.5)	.27 (6.9)	.50 (12.7)	.032 (0.8)
.033	716P33391N	.57 (14.5)	.29 (7 4)	.53 (13.5)	.032 (0.8)
.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)
.05	716P50391J	.70 (17.8)	.28 (7 1)	.52 (13.2)	.032 (0.8)
.056	716P56391J	.70 (17.8)	.29 (7 4)	.53 (13.5)	.032 (0.8)
.062	716P62391J	.70 (17.8)	.31 (7.9)	.54 (13.7)	.032 (0.8)
.068	716P68391J	.70 (17.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)
.075	716P75391J	.70 (17.8)	.33 (8.4)	.57 (14.5)	.032 (0.8)
.082	716P82391J	.70 (17.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)
.09	716P90391J	.70 (17.8)	.36 (9.1)	.60 (15.2)	.032 (0.8)
.1	716P10491J	.70 (17.8)	.38 (9.7)	.62 (15.7)	.032 (0.8)
.12	716P12491K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)
.15	716P15491K	.90 (22.9)	.37 (9.4)	.61 (15.5)	.032 (0.8)
.18	716P18491K	.90 (22.9)	.40 (10.2)	.64 (16.3)	.032 (0.8)
.20	716P20491K	.90 (22.9)	.42 (10.7)	.66 (16.8)	.032 (0.8)
.22	716P22491K	.90 (22.9)	.44 (11.2)	.68 (17.3)	.032 (0.8)
.25	716P25491K	.90 (22.9)	.47 (11.9)	.71 (18.0)	.032 (0.8)
.27	716P27491K	.90 (22.9)	.49 (12.4)	.73 (18.5)	.032 (0.8)
.30	716P30491L	1.25 (31.8)	.41 (10.4)	.65 (16.5)	.040 (1.0)
.33	716P33491L	1.25 (31.8)	.42 (10.7)	.67 (17.0)	.040 (1.0)
200 VDC / 155 VAC*					
.01	716P10392J	.70 (17.8)	.25 (6.4)	.37 (9.4)	.032 (0.8)
.012	716P12392J	.70 (17.8)	.27 (6.9)	.39 (9.9)	.032 (0.8)
.015	716P15392J	.70 (17.8)	.26 (6.6)	.45 (11.4)	.032 (0.8)
.018	716P18392J	.70 (17.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)
.022	716P22392J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)
.027	716P27392J	.70 (17.8)	.29 (7 4)	.48 (12.2)	.032 (0.8)
.033	716P33392J	.70 (17.8)	.32 (8.1)	.51 (13.0)	.032 (0.8)
.039	716P39392J	.70 (17.8)	.32 (8.1)	.56 (14.2)	.032 (0.8)
.047	716P47392J	.70 (17.8)	.34 (8.6)	.58 (14.7)	.032 (0.8)
.056	716P56392K	.90 (22.9)	.30 (7.6)	.55 (14.0)	.032 (0.8)
.068	716P68392K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)
.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)
.12	716P12492K	.90 (22.9	.40 (10.2)	.69 (17.5)	.032 (0.8)
.15	716P15492K	.90 (22.9)	.45 (11.4)	.73 (18.5)	.032 (0.8)
200 VDC / 155 VAC*					
.18	716P18492L	1.25 (31.8)	.39 (9.9)	.67 (17.0)	.040 (1.0)
.22	716P22492L	1.25 (31.8)	.43 (10.9)	.71 (18.0)	.040 (1.0)
.27	716P27492L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.040 (1.0)
.33	716P33492L	1.25 (31.8)	.47 (11.9)	.86 (21.8)	.040 (1.0)
.39	716P39492L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.040 (1.0)
.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)
.68	716P68492M	1.65 (41.9)	.56 (14.2)	.94 (23.9)	.040 (1.0)
.82	716P82492M	1.65 (41.9)	.61 (15.5)	1.00 (25.4)	.040 (1.0)
1.0	716P10592M	1.65 (41.9)	.68 (17.3)	1.07 (27.2)	.040 (1.0)
400 VDC / 200 VAC*					
.001	716P10294J	.70 (17.8)	.25 (6.4)	.47 (11.9)	.032 (0.8)
.0012	716P12294J	.70 (17.8)	.22 (5.6)	.44 (11.2)	.032 (0.8)
.0015	716P15294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.0018	716P18294J	.70 (17.8)	.25 (6.4)	.46 (11.7)	.032 (0.8)
.0022	716P22294J	.70 (17.8)	.26 (6.6)	.48 (12.2)	.032 (0.8)
.0027	716P27294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.0033	716P33294J	.70 (17.8)	.24 (6.1)	.45 (11.4)	.032 (0.8)
.0039	716P39294J	.70 (17.8)	.24 (6.1)	.36 (9.1)	.032 (0.8)
.0047	716P47294J	.70 (17.8)	.25 (6.4)	.37 (9.4)	.032 (0.8)
.0056	716P56294J	.70 (17.8)	.24 (6.1)	.44 (11.2)	.032 (0.8)
.0068	716P68294J	.70 (17.8)	.24 (6.1)	.44 (11.2)	.032 (0.8)
.0082	716P82294J	.70 (17.8)	.25 (6.4)	.45 (11.4)	.032 (0.8)
.01	716P10394J	.70 (17.8)	.27 (6.9)	.46 (11.7)	.032 (0.8)
.012	716P12394J	.70 (17.8)	.29 (7.4)	.48 (12.2)	.032 (0.8)
.015	716P15394J	.70 (17.8)	.31 (7.9)	.50 (12.7)	.032 (0.8)
.018	716P18394K	.90 (22.9)	.28 (7.1)	.47 (11.9)	.032 (0.8)
.022	716P22394K	.90 (22.9)	.30 (7.6)	.49 (12.4)	.032 (0.8)
.027	716P27394K	.90 (22.9)	.31 (7.9)	.55 (14.0)	.032 (0.8)
.033	716P33394K	.90 (22.9)	.33 (8.4)	.57 (14.5)	.032 (0.8)
.039	716P39394K	.90 (22.9)	.36 (9.1)	.60 (15.2)	.032 (0.8)
.047	716P47394K	.90 (22.9)	.39 (9.9)	.62 (15.7)	.032 (0.8)
.056	716P56394K	.90 (22.9)	.40 (10.2)	.68 (17.3)	.032 (0.8)
.068	716P68394K	.90 (22.9)	.43 (10.9)	.72 (18.3)	.032 (0.8)
.082	716P82394L	1.25 (31.8)	.38 (9.7)	.67 (17.0)	.040 (1.0)
.1	716P10494L	1.25 (31.8)	.42 (10.7)	.70 (17.8)	.040 (1.0)
.12	716P12494L	1.25 (31.8)	.45 (11.4)	.73 (18.5)	.040 (1.0)
.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)
.22	716P22494L	1.25 (31.8)	.57 (14.5)	.95 (24.1)	.040 (1.0)
.27	716P27494L	1.25 (31.8)	.63 (16.0)	1.01 (25.7)	.040 (1.0)
.33	716P33494M	1.65 (41.9)	.57 (14.5)	.96 (24.4)	.040 (1.0)
.39	716P39494M	1.65 (41.9)	.62 (15.7)	1.01 (25.7)	.040 (1.0)
.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 CDE Distribution Network on special order.

Dimensions in inches, metric (mm) in parenthesis.

Type 716P, Orange Drop Polypropylene Film/Foil Capacitors

High Performance

Type 716P Standard Sizes/Ratings[2]

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

Dimensions in inches, metric (mm) in parenthesis.

Type 716P, Orange Drop Polypropylene Film/Foil Capacitors

High Performance

Type 716P Standard Sizes/Ratings[2]

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 (71.)	.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	716P272920L	1.25 (31.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)
.0027	716P272916L	1.25 (31.8)	.35 (8.9)	.59 (15.0)	.032 (0.8)	.0033	716P332920L	1.25 (31.8)	.37 (9.4)	.61 (15.5)	.032 (0.8)
.0033	716P332916L	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	716P562920L	1.25 (31.8)	.43 (10.9)	.72 (18.3)	.032 (0.8)
.0056	716P562916L	1.25 (31.8)	.43 (10.9)	.72 (18.3)	.032 (0.8)	.0068	716P682920L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.032 (0.8)
.0068	716P682916L	1.25 (31.8)	.47 (11.9)	.75 (19.1)	.032 (0.8)	.0082	716P822920L	1.25 (31.8)	.47 (11.9)	.85 (21.6)	.032 (0.8)
.0082	716P822916L	1.25 (31.8)	.47 (11.9)	.85 (21.6)	.032 (0.8)	.01	716P103920L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.032 (0.8)
.01	716P103916L	1.25 (31.8)	.51 (13.0)	.90 (22.9)	.032 (0.8)	.012	716P123920L	1.25 (31.8)	.55 (14.0)	.94 (23.9)	.032 (0.8)
.012	716P123916L	1.25 (31.8)	.55 (14.0)	.94 (23.9)	.032 (0.8)						
						.015	716P153920M	1.65 (41.9)	.49 (12.4)	.87 (22.1)	.040 (1.0)
.015	716P153916M	1.65 (41.9)	.49 (12.4)	.87 (22.1)	.040 (1.0)	.018	716P183920M	1.65 (41.9)	.53 (13.5)	.91 (23.1)	.040 (1.0)
.018	716P183916M	1.65 (41.9)	.53 (13.5)	.91 (23.1)	.040 (1.0)	.022	716P223920M	1.65 (41.9)	.58 (14.7)	.96 (24.4)	.040 (1.0)
.022	716P223916M	1.65 (41.9)	.58 (14.7)	.96 (24.4)	.040 (1.0)	.027	716P273920M	1.65 (41.9)	.63 (16.0)	1.02 (25.9)	.040 (1.0)
.027	716P273916M	1.65 (41.9)	.63 (16.0)	1.02 (25.9)	.040 (1.0)	.033	716P333920M	1.65 (41.9)	.69 (17.5)	1.08 (27.4)	.040 (1.0)
.033	716P333916M	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 CDE 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.

High Performance

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

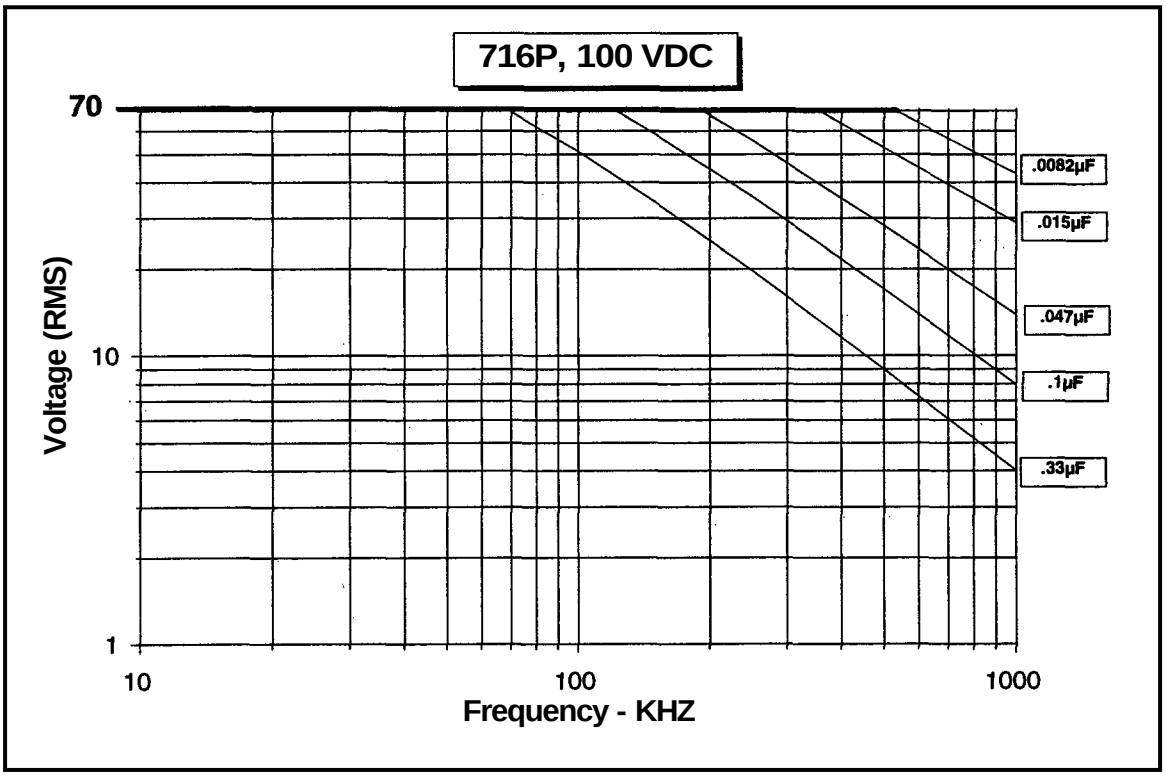
Maximum Pulse Rise Time (dv/dt) in Volts/µsec

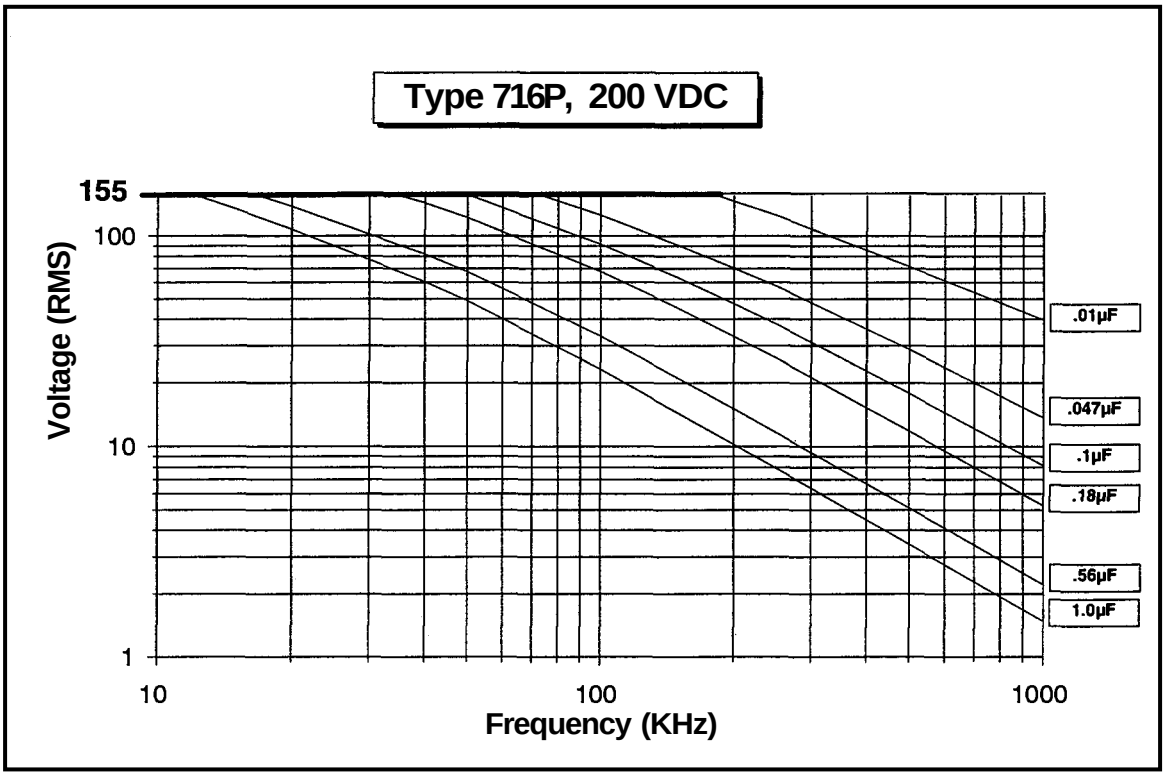
Cap Value (µF)	100V	200V	400V	600V	800V/ 1000V	1200V	1600V/ 2000V
.001	-	-	20700	20700	-	43200	43200
.0012	-	-	18900	18900	-	39500	39500
.0015	-	-	16900	16900	-	35300	35300
.0018	-	-	15400	15400	-	32200	32200
.0022	-	-	14000	14000	-	29100	29100
.0027	-	-	12600	12600	-	25000	26300
.0033	-	-	11400	11400	-	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.

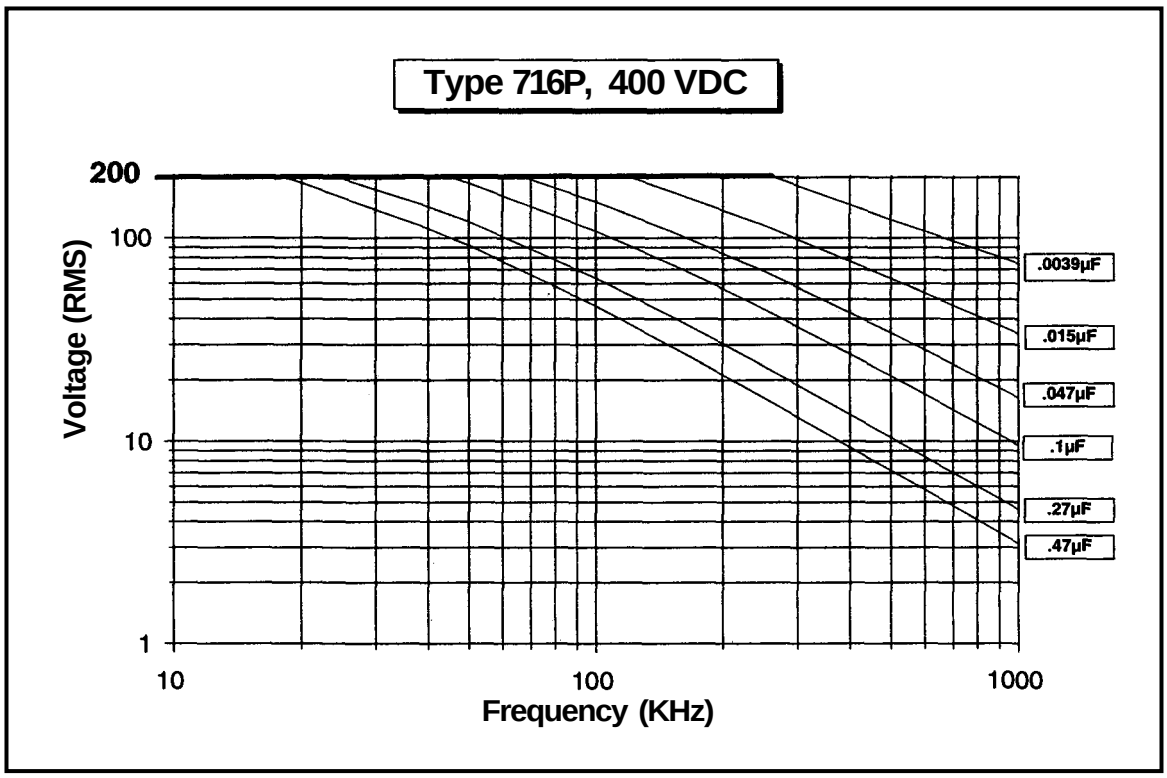
For additional information on Pulse Rise Time (dV/dt) please refer to the Technical Reference section of this catalog. For more specific data or assistance with a specific application just give us a call.

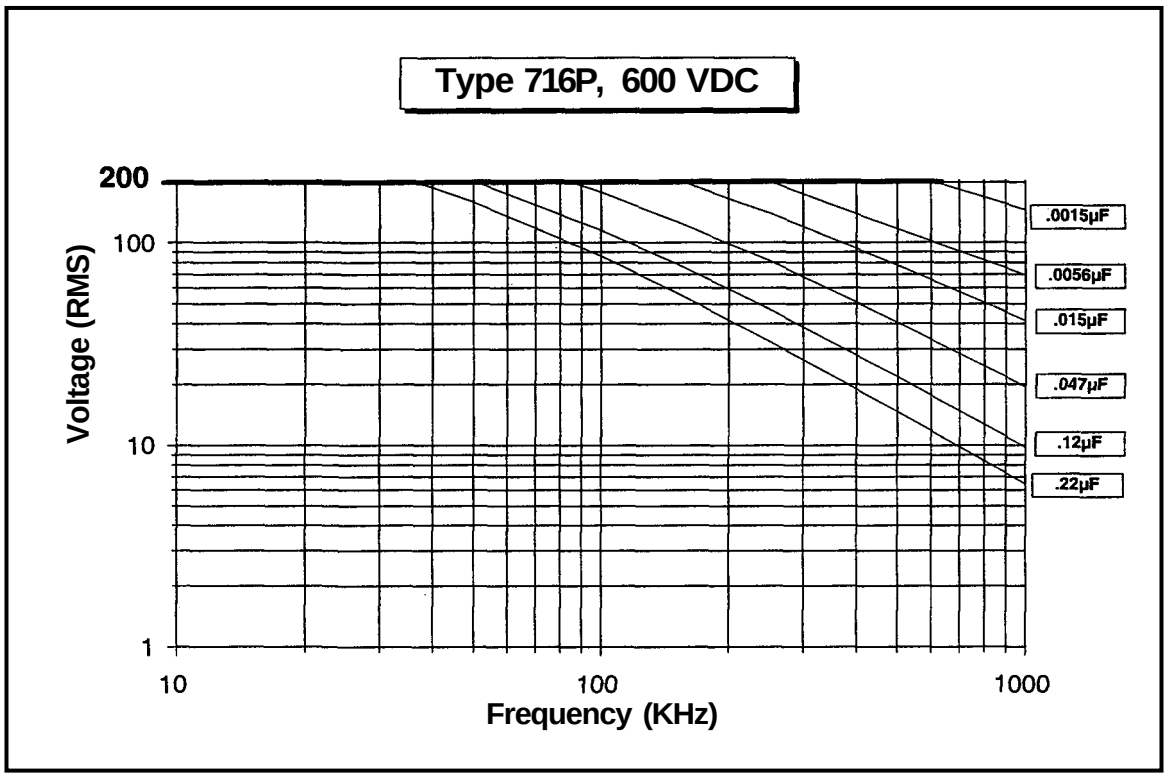
RMS Voltage vs. Frequency @ +85°C





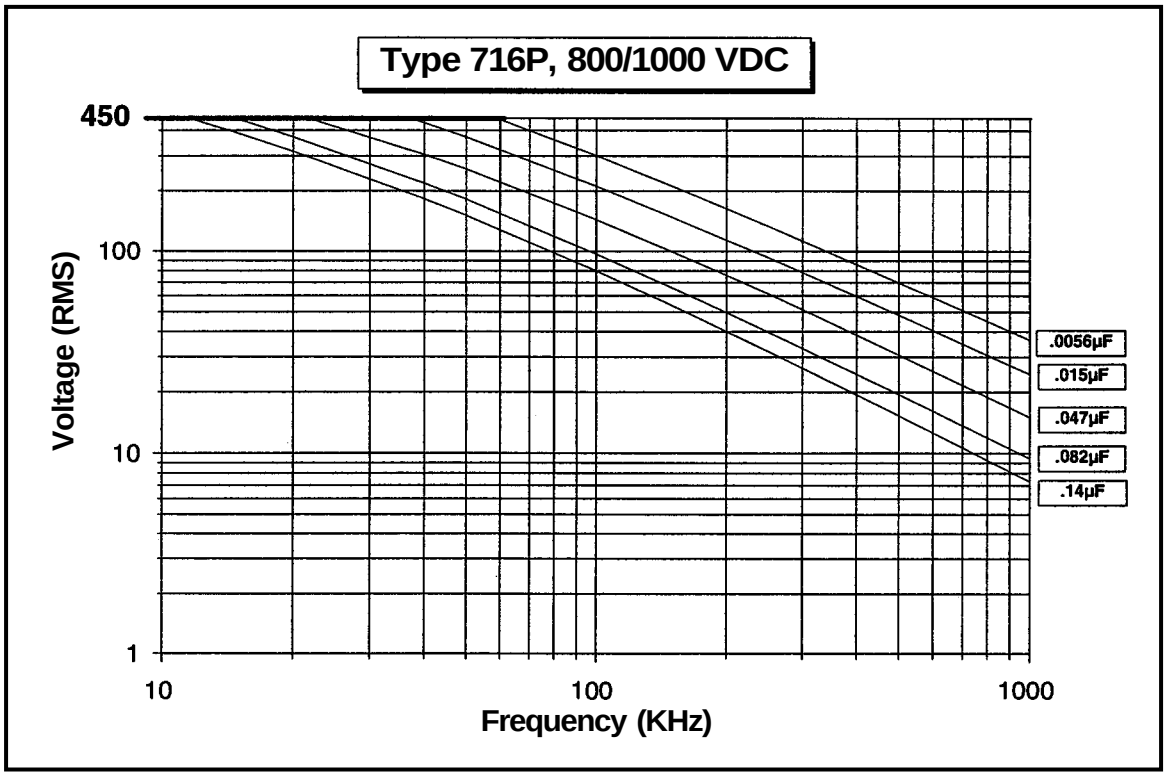
RMS Voltage vs. Frequency @ +85°C

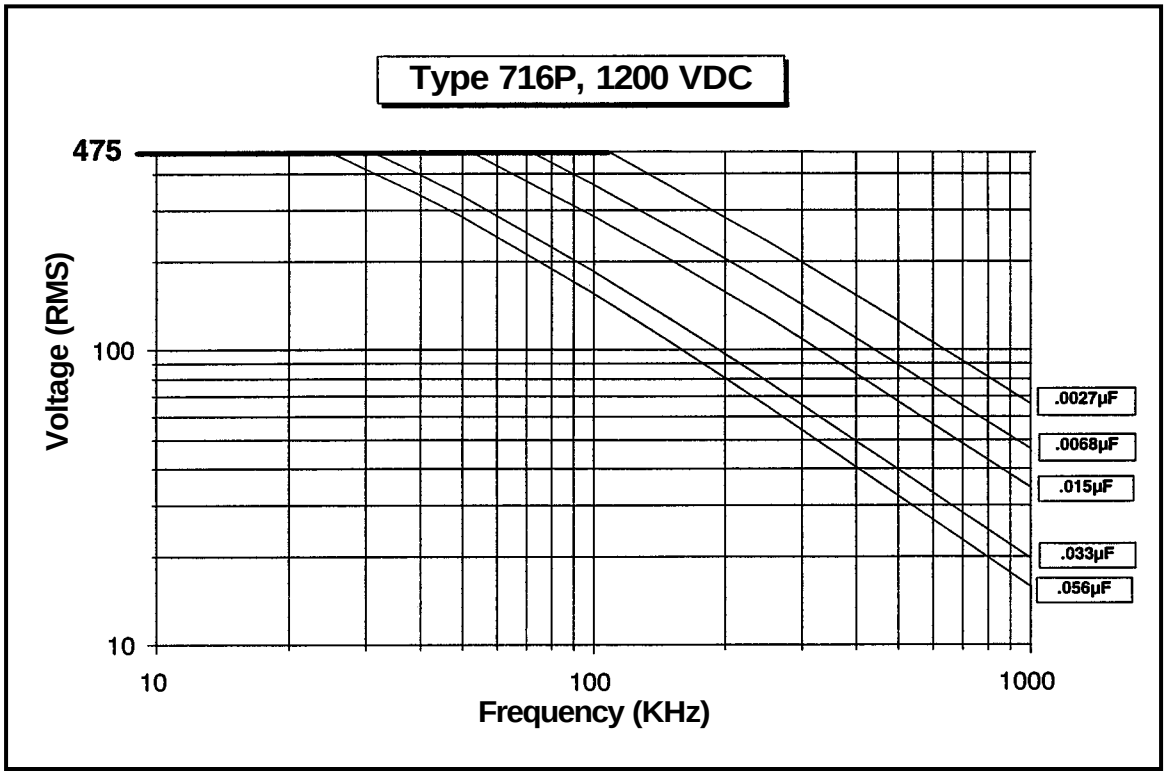




High Performance

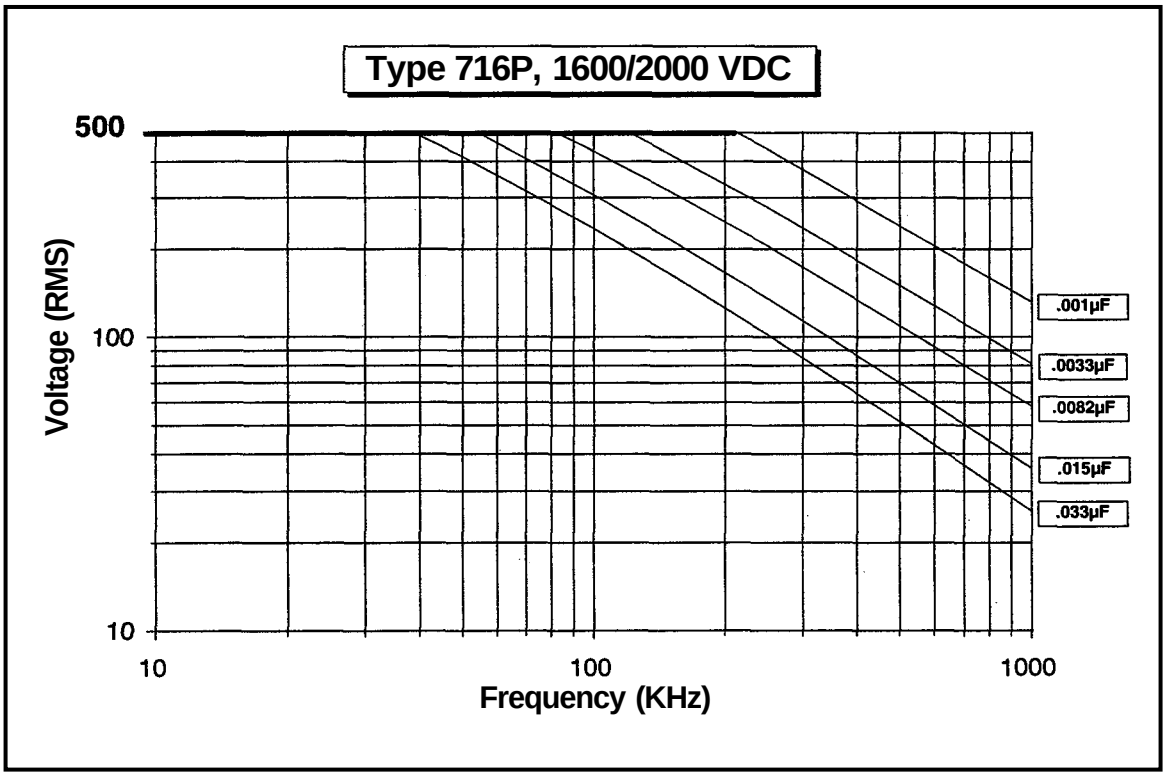
RMS Voltage vs. Frequency @ +85°C



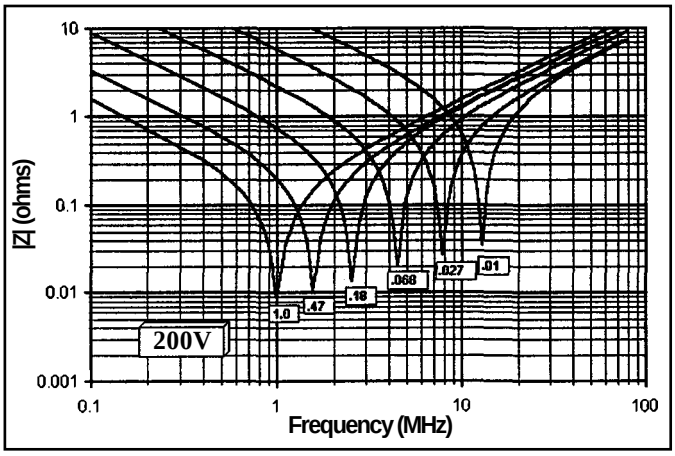


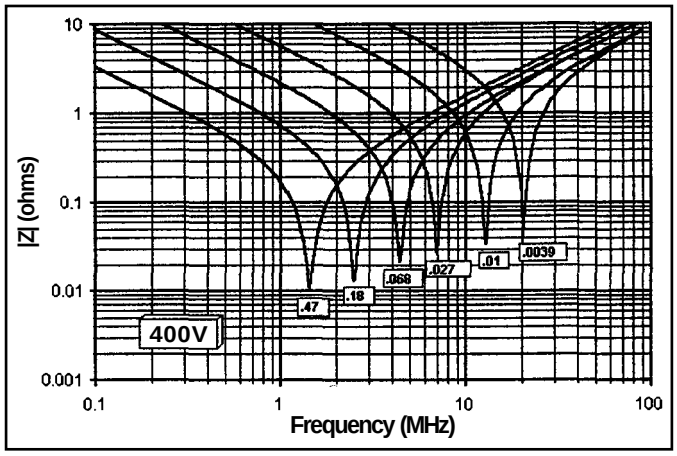
High Performance

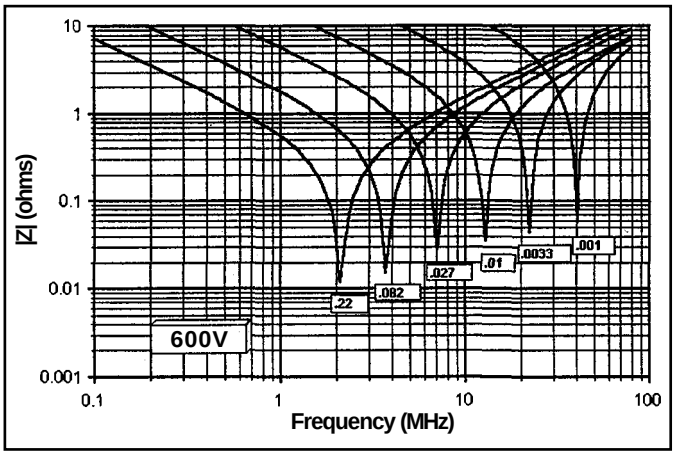
RMS Voltage vs. Frequency @ +85°C

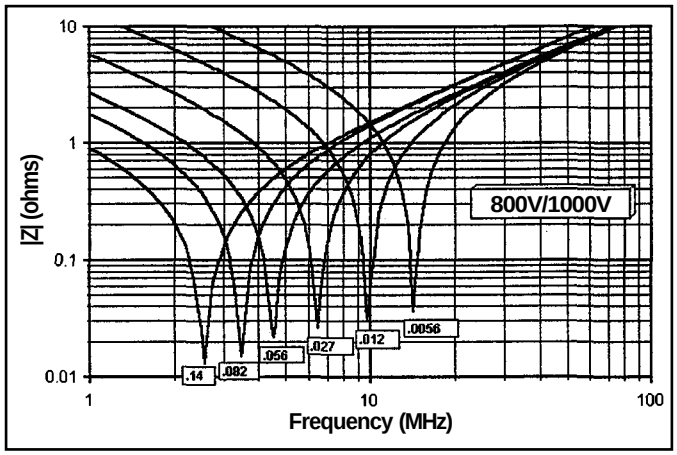


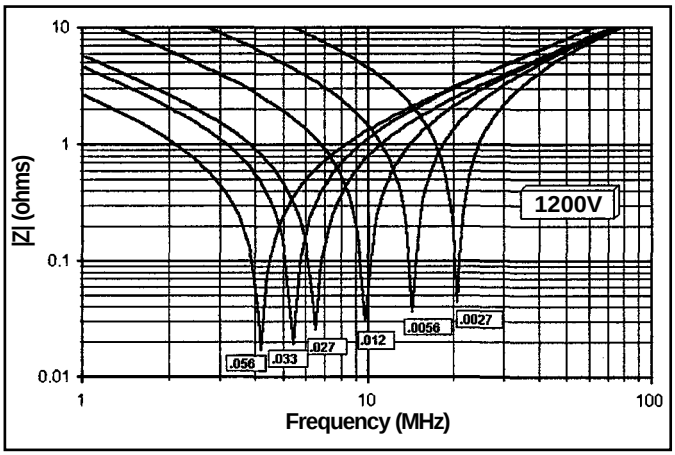
Typical Impedance vs. Frequency

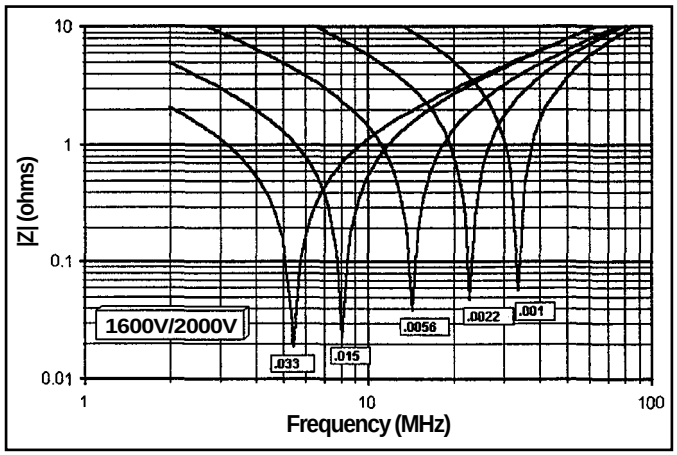












Please note: Capacitance values above are in µF. The resonant frequency and impedance shown above apply to units with a 0.250" lead length and are typical values only. Please contact us for data on the 100VDC rated units.

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