

# Type 715P/717P, Orange Drop<sup>®</sup>, High Voltage, Polypropylene Film/Foil



Type 715P/717P are high AC voltage, film/foil polypropylene capacitors. Well suited for high AC voltage applications requiring corona free performance. These capacitors are ideal in high frequency, high pulse current applications and offer excellent stability, virtually linear temperature coefficient.

## Highlights

- Very low dissipation factor
- High dV/dt rating

## Specifications

|                                |  |
|--------------------------------|--|
| Capacitance Range              | 470 pF to .015 $\mu$ F   |
| Capacitance Tolerance          | $\pm$ 1% to $\pm$ 10%  |
| Rated Voltage                  | 800/900 Vac (1800/2000 Vdc)  |
| Operating Temperature Range    | -55 $^{\circ}$ C to 85 $^{\circ}$ C<br>+105 $^{\circ}$ C with proper voltage derating  |
| Lead Wire                      | Tinned copper clad steel, .032" (0.8) diameter, #20 AWG  |
| Corona Start Voltage (typical) | 800 Vac units: 950 - 1000 V RMS<br>900 Vac units: 1050 - 1100 V RMS  |
| 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   |
| Encapsulations                 | Conformal coating of flame retardant orange epoxy (meets UL94V-0)  |
| Insulation Resistance          | 400,000 M $\Omega$ minimum at +25 $^{\circ}$ C<br>20,000 M $\Omega$ minimum at +85 $^{\circ}$ C<br>2,000 M $\Omega$ minimum at +105 $^{\circ}$ C |
| <b>RoHS Compliant</b>          |  |

## Part Numbering System

Dimensions in inches, metric (mm) in parenthesis.

|  |                    |   |                          |   |   |   |               |
|--|--------------------|---|--------------------------|---|---|---|---------------|
| <b>715P/717P</b>                           | <b>222</b>         | <b>5</b>  | <b>800</b>               | <b>L</b>  | <b>B</b>  | <b>3</b>  | <b>(XXXX)</b> |
|  |                    |   |                          |   |   |   |               |
| <b>Series</b>                              | <b>Capacitance</b> | <b>Capacitance Tolerance</b>  | <b>AC Voltage Rating</b> | <b>Case Code</b>  | <b>Terminal</b>   | <b>Lead Length</b>  | <b>Suffix</b> |
| 715P Round Profile<br>717P Pressed Profile | 222 = 2200 pF      | 9 = $\pm$ 10%<br>5 = $\pm$ 5%<br>3 = $\pm$ 3%<br>2 = $\pm$ 2%<br>1 = $\pm$ 1% |                          | A = Straight Lead<br>B = Hairpin Crimp<br>C = Captive Crimp *<br>D = Hockey Stick Crimp | 1 = 0.187 (4.7) $\pm$ 0.030 (0.8)<br>2 = 0.250 (6.4) $\pm$ 0.030 (0.8)<br>3 = 1.250 (32) Minimum<br>(Custom lead lengths available) | May be added<br>by factory to<br>denote special<br>construction |               |

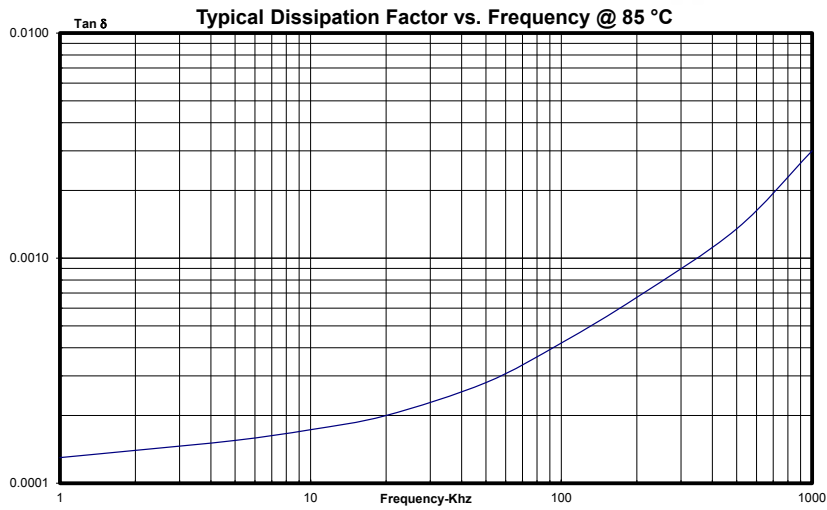
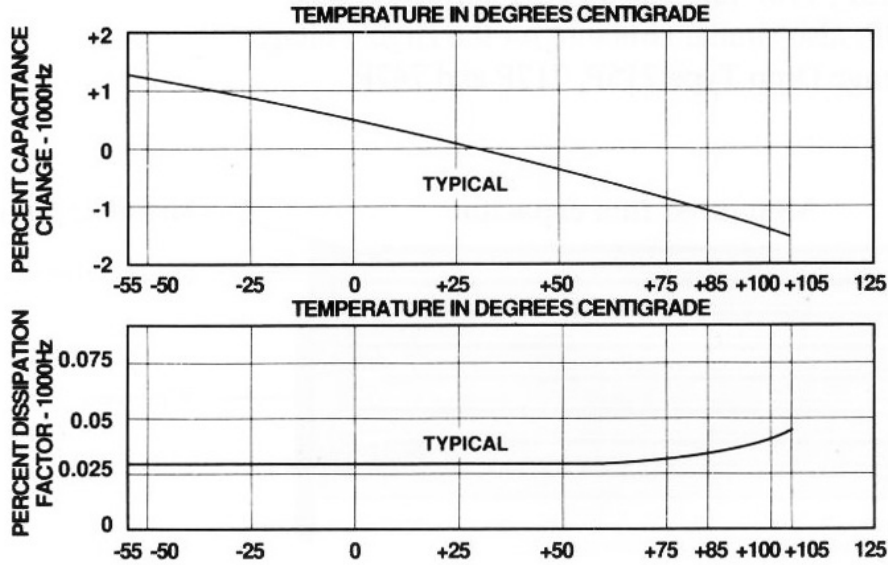
\*Terminal C has a lead length of 0.156 (4.0)  $\pm$ 0.020 (0.5) therefore it is not necessary to indicate the lead length digit. The Captive Crimp is designed for circuit boards with hole sizes of .044 (1.1) to .048 (1.2) in diameter.

# Type 715P/717P, Orange Drop<sup>®</sup>, High Voltage, Polypropylene Film/Foil Ratings

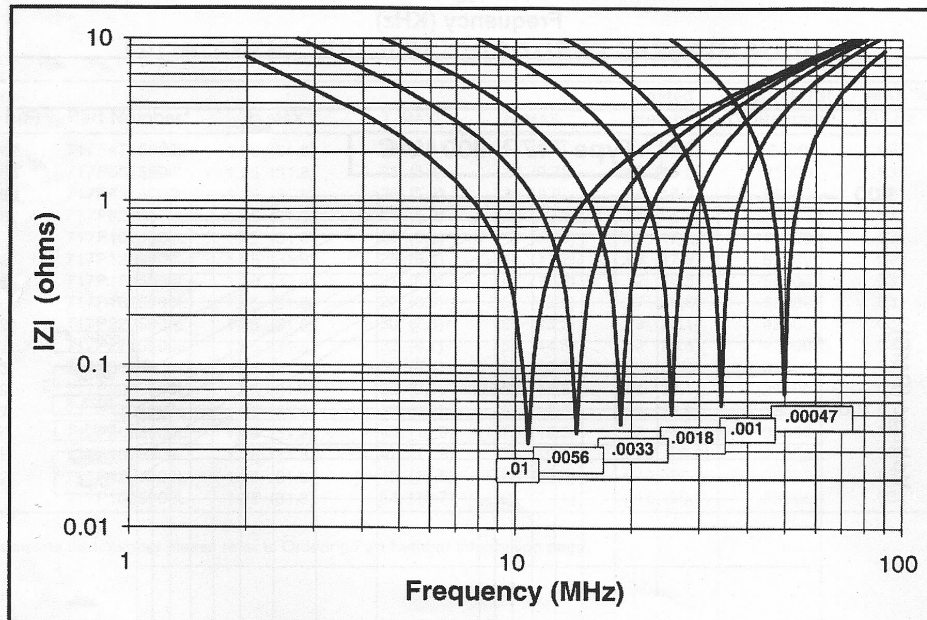
| Cap.<br>( $\mu$ F)                               | Catalog<br>Part Number | L Max        | Dia Max    | H Max      | Seated<br>Height | Max dV/dt<br>(Volts/ $\mu$ sec) | Max % D.F. @ |         |
|--|------------------------|--------------|------------|------------|------------------|---------------------------------|--------------|---------|
|  |                        |              |            |            |                  |                                 | 20 KHz       | 100 KHz |
| <b>Type 715P, 800 Vac Standard Sizes/Ratings</b> |                        |              |            |            |                  |                                 |              |         |
| 0.00047  | 715P4715800L           | 1.125 (28.5) | .29 (7.4)  | .35 (8.9)  | .60 (15.3)       | 95000                           | 0.029        | 0.039   |
| 0.00056  | 715P5615800L           | 1.125 (28.5) | .30 (7.6)  | .36 (9.2)  | .61 (15.5)       | 87000                           | 0.029        | 0.040   |
| 0.00068  | 715P6815800L           | 1.125 (28.5) | .32 (8.1)  | .37 (9.4)  | .62 (15.8)       | 79000                           | 0.029        | 0.040   |
| 0.00082  | 715P8215800L           | 1.125 (28.5) | .28 (7.1)  | .33 (8.4)  | .58 (14.7)       | 72000                           | 0.030        | 0.043   |
| 0.001  | 715P1025800L           | 1.125 (28.5) | .28 (7.1)  | .33 (8.4)  | .58 (14.7)       | 65000                           | 0.030        | 0.043   |
| 0.0012   | 715P1225800L           | 1.125 (28.5) | .29 (7.4)  | .35 (8.9)  | .60 (15.3)       | 60000                           | 0.030        | 0.044   |
| 0.0015   | 715P1525800L           | 1.125 (28.5) | .31 (7.9)  | .36 (9.2)  | .61 (15.5)       | 53000                           | 0.030        | 0.044   |
| 0.0018   | 715P1825800L           | 1.125 (28.5) | .32 (8.1)  | .38 (9.7)  | .63 (16.0)       | 49000                           | 0.030        | 0.044   |
| 0.0022   | 715P2225800L           | 1.125 (28.5) | .34 (8.6)  | .40 (10.2) | .65 (16.5)       | 44000                           | 0.030        | 0.045   |
| 0.0027   | 715P2725800L           | 1.125 (28.5) | .36 (9.2)  | .42 (10.7) | .67 (17.0)       | 40000                           | 0.030        | 0.045   |
| 0.0033   | 715P3325800L           | 1.125 (28.5) | .38 (9.7)  | .44 (11.2) | .69 (17.5)       | 36000                           | 0.031        | 0.046   |
| 0.0039   | 715P3925800L           | 1.125 (28.5) | .41 (10.4) | .46 (11.7) | .71 (18.0)       | 33000                           | 0.031        | 0.046   |
| 0.0047   | 715P4725800L           | 1.125 (28.5) | .43 (10.9) | .49 (12.5) | .74 (18.8)       | 30000                           | 0.031        | 0.047   |
| 0.0056   | 715P5625800L           | 1.125 (28.5) | .46 (11.7) | .52 (13.2) | .77 (19.6)       | 28000                           | 0.031        | 0.048   |
| 0.0068   | 715P6825800L           | 1.125 (28.5) | .49 (12.5) | .55 (14.0) | .80 (20.3)       | 25000                           | 0.031        | 0.049   |
| 0.0082   | 715P8225800L           | 1.125 (28.5) | .53 (13.5) | .58 (14.7) | .83 (21.2)       | 23000                           | 0.031        | 0.051   |
| 0.01   | 715P1035800L           | 1.125 (28.5) | .57 (14.5) | .63 (16.0) | .88 (22.4)       | 21000                           | 0.032        | 0.053   |
| 0.012  | 715P1235800L           | 1.125 (28.5) | .61 (15.5) | .67 (17.0) | .92 (23.4)       | 19000                           | 0.032        | 0.055   |
| 0.015  | 715P1535800L           | 1.125 (28.5) | .67 (17.0) | .72 (18.3) | .97 (24.6)       | 17000                           | 0.033        | 0.058   |
| <b>Type 717P, 800 Vac Standard Sizes/Ratings</b> |                        |              |            |            |                  |                                 |              |         |
| 0.00047  | 717P4715800L           | 1.125 (28.5) | .21 (5.4)  | .39 (9.9)  | .64 (16.3)       | 95000                           | 0.029        | 0.039   |
| 0.00056  | 717P5615800L           | 1.125 (28.5) | .22 (5.6)  | .40 (10.2) | .65 (16.5)       | 87000                           | 0.029        | 0.040   |
| 0.00068  | 717P6815800L           | 1.125 (28.5) | .24 (6.1)  | .42 (10.7) | .67 (17.0)       | 79000                           | 0.029        | 0.040   |
| 0.00082  | 717P8215800L           | 1.125 (28.5) | .20 (5.1)  | .38 (9.7)  | .63 (16.0)       | 72000                           | 0.030        | 0.043   |
| 0.001  | 717P1025800L           | 1.125 (28.5) | .20 (5.1)  | .38 (9.7)  | .63 (16.0)       | 65000                           | 0.030        | 0.043   |
| 0.0012   | 717P1225800L           | 1.125 (28.5) | .21 (5.4)  | .39 (9.9)  | .64 (16.3)       | 60000                           | 0.030        | 0.044   |
| 0.0015   | 717P1525800L           | 1.125 (28.5) | .31 (7.9)  | .41 (10.4) | .66 (16.8)       | 53000                           | 0.030        | 0.044   |
| 0.0018   | 717P1825800L           | 1.125 (28.5) | .23 (5.9)  | .42 (10.7) | .67 (17.0)       | 49000                           | 0.030        | 0.044   |
| 0.0022   | 717P2225800L           | 1.125 (28.5) | .24 (6.1)  | .45 (11.4) | .70 (17.8)       | 44000                           | 0.030        | 0.045   |
| 0.0027   | 717P2725800L           | 1.125 (28.5) | .25 (6.4)  | .47 (11.9) | .72 (18.3)       | 40000                           | 0.030        | 0.045   |
| 0.0033   | 717P3325800L           | 1.125 (28.5) | .27 (6.9)  | .50 (12.7) | .75 (19.1)       | 36000                           | 0.031        | 0.046   |
| 0.0039   | 717P3925800L           | 1.125 (28.5) | .29 (7.4)  | .55 (14.0) | .80 (20.3)       | 33000                           | 0.031        | 0.046   |
| 0.0047   | 717P4725800L           | 1.125 (28.5) | .29 (7.4)  | .57 (14.5) | .82 (20.8)       | 30000                           | 0.031        | 0.047   |
| 0.0056   | 717P5625800L           | 1.125 (28.5) | .32 (8.1)  | .60 (15.3) | .85 (21.6)       | 28000                           | 0.031        | 0.048   |
| 0.0068   | 717P6825800L           | 1.125 (28.5) | .34 (8.6)  | .63 (16.0) | .88 (22.4)       | 25000                           | 0.031        | 0.049   |
| 0.0082   | 717P8225800L           | 1.125 (28.5) | .38 (9.7)  | .69 (17.5) | .94 (23.9)       | 23000                           | 0.031        | 0.051   |
| 0.01   | 717P1035800L           | 1.125 (28.5) | .43 (10.9) | .73 (18.5) | .98 (24.9)       | 21000                           | 0.032        | 0.053   |
| 0.012  | 717P1235800L           | 1.125 (28.5) | .44 (11.2) | .79 (20.1) | 1.04 (26.4)      | 19000                           | 0.032        | 0.055   |
| 0.015  | 717P1535800L           | 1.125 (28.5) | .50 (12.7) | .85 (21.6) | 1.10 (27.9)      | 17000                           | 0.033        | 0.058   |

# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

## 800 Vac Performance Characteristics



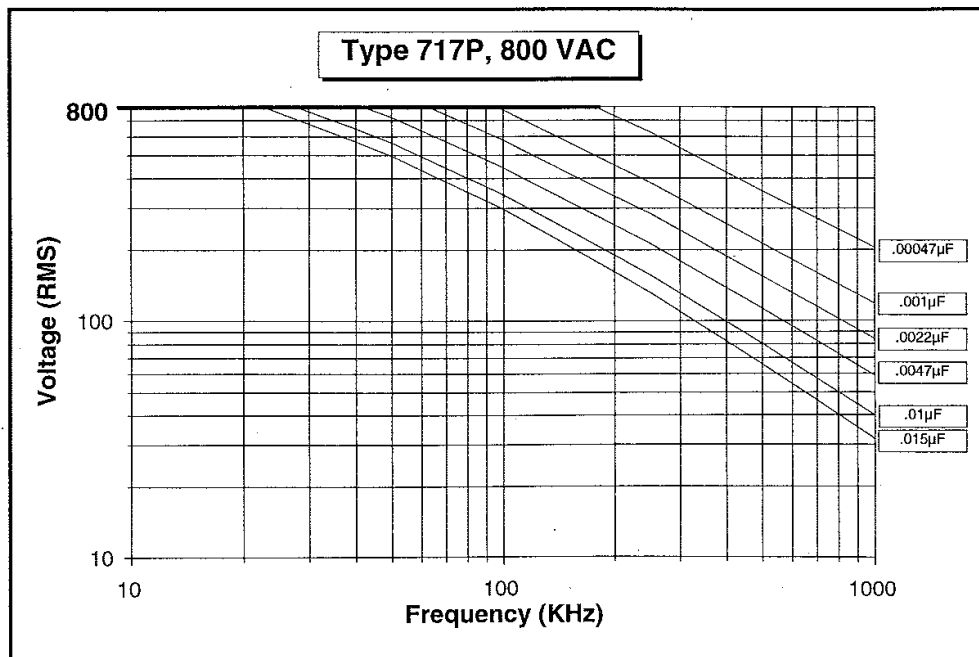
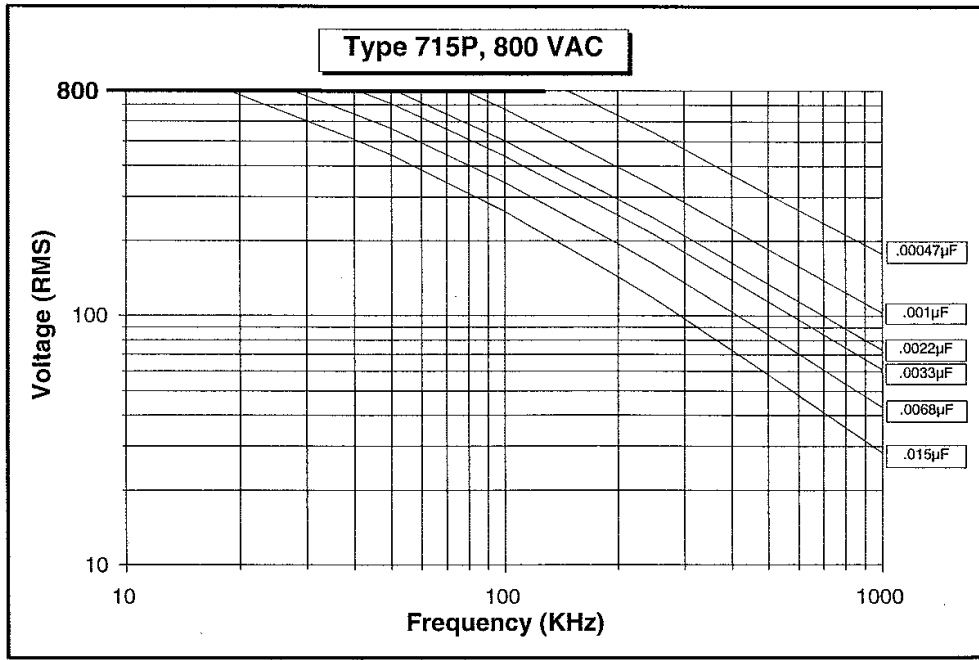
## Typical Impedance vs. Frequency



# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

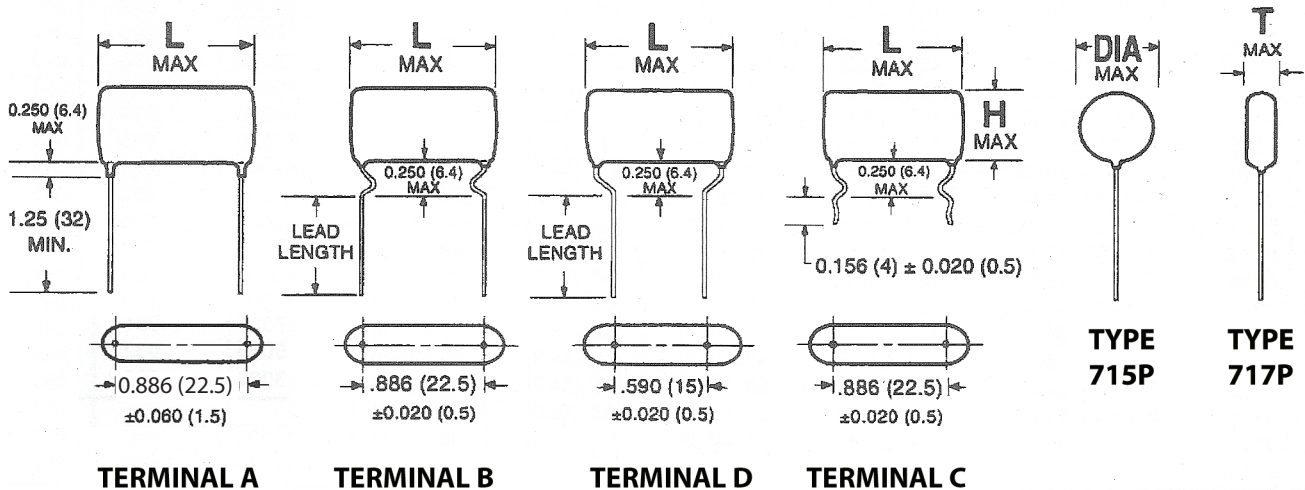
## 800 Vac Performance Characteristics

### RMS Voltage vs. Frequency @ +85 °C



# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

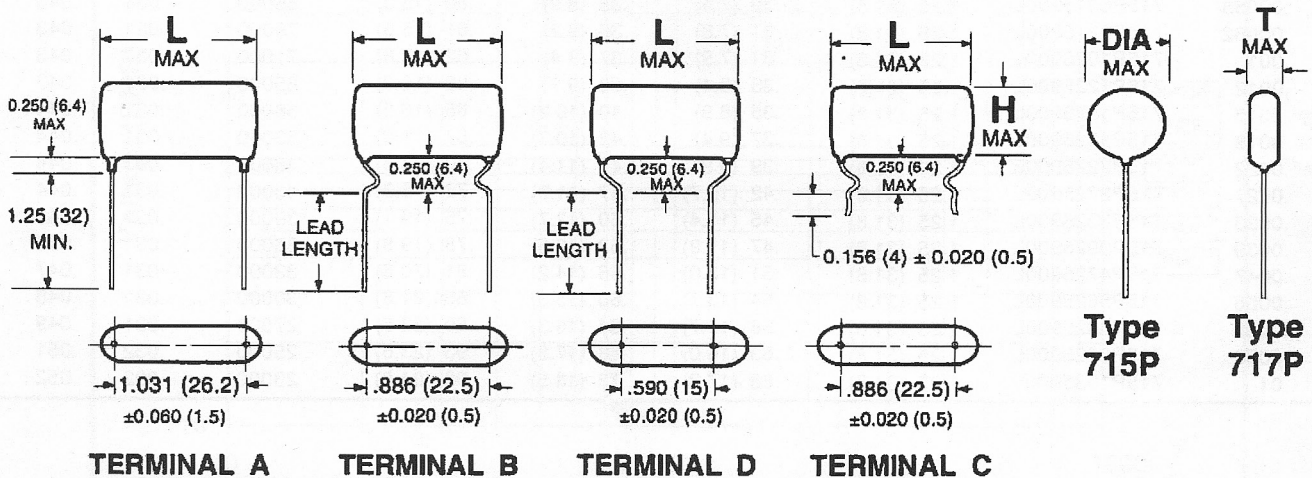
## Standard Lead Styles/Lead Spacing 800 Vac



## Standard Marking Format

| Sample Marking on unit | Description                                  | Tolerance codes per EIA standards |
|------------------------|--|-----------------------------------|
| CDE                    | CDE Electronics identification               | F ±1%                             |
| CDE715P800VAC          | 715P Type number                             | G ±2%                             |
| 222J 9810              | 800VAC AC Voltage rating, Volts              | H ±3%                             |
|                        | 222J Capacitance and tolerance code          | J ±5%                             |
|                        | 9810 Weekly date code (i.e. 10th wk of 1998) | K ±10%                            |

## Standard Lead Styles/Lead Spacing 900 Vac



## Standard Marking Format

| Sample Marking on unit | Description                                  | Tolerance codes per EIA standards |
|------------------------|--|-----------------------------------|
| CDE                    | CDE Electronics identification               | F ±1%                             |
| CDE715P900VAC          | 715P Type number                             | G ±2%                             |
| 222J 9810              | 900VAC AC Voltage rating, Volts              | H ±3%                             |
|                        | 222J Capacitance and tolerance code          | J ±5%                             |
|                        | 9810 Weekly date code (i.e. 10th wk of 1998) | K ±10%                            |

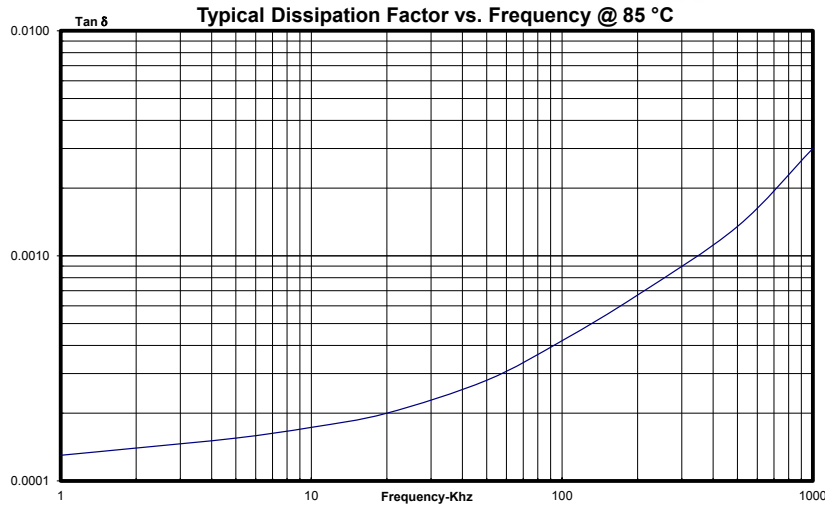
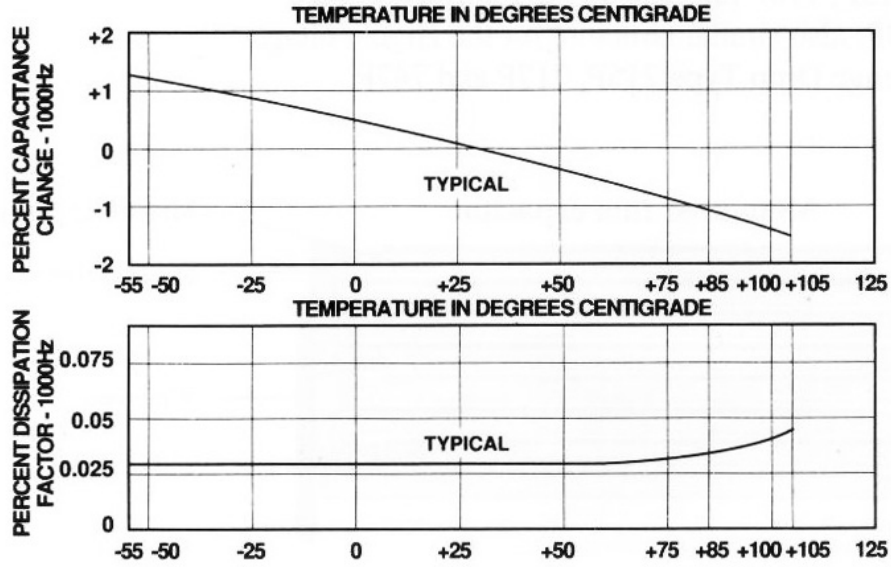
# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

## Ratings

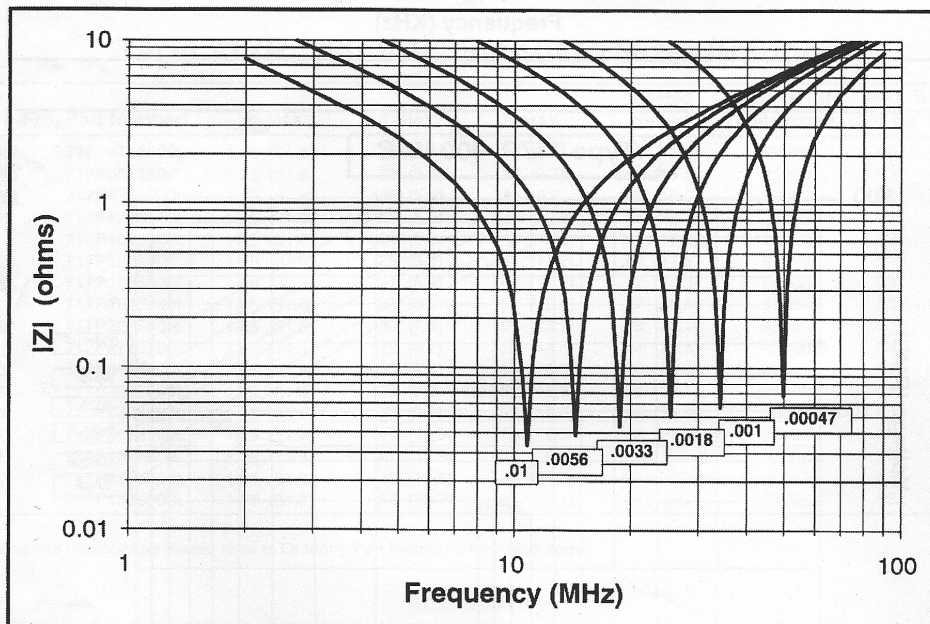
| Cap.<br>(µF)                                     | Catalog<br>Part Number | L Max       | Dia Max    | H Max      | Seated<br>Height | Max dV/dt<br>(Volts/µsec) | Max % D.F. @ |         |
|--|------------------------|-------------|------------|------------|------------------|---------------------------|--------------|---------|
|  |                        |             |            |            |                  |                           | 20 KHz       | 100 KHz |
| <b>Type 715P, 900 Vac Standard Sizes/Ratings</b> |                        |             |            |            |                  |                           |              |         |
| 0.00047  | 715P4715900L           | 1.25 (31.8) | .27 (6.9)  | .33 (8.4)  | .58 (14.8)       | 104000                    | 0.031        | 0.043   |
| 0.00056  | 715P5615900L           | 1.25 (31.8) | .28 (7.1)  | .34 (8.7)  | .59 (15.0)       | 95000                     | 0.031        | 0.043   |
| 0.00068  | 715P6815900L           | 1.25 (31.8) | .29 (7.4)  | .35 (8.9)  | .60 (15.3)       | 86000                     | 0.031        | 0.043   |
| 0.00082  | 715P8215900L           | 1.25 (31.8) | .31 (7.9)  | .36 (9.2)  | .61 (15.5)       | 78000                     | 0.031        | 0.043   |
| 0.001  | 715P1025900L           | 1.25 (31.8) | .31 (7.9)  | .37 (9.4)  | .62 (15.8)       | 71000                     | 0.031        | 0.043   |
| 0.0012   | 715P1225900L           | 1.25 (31.8) | .33 (8.4)  | .38 (9.7)  | .63 (16.0)       | 65000                     | 0.031        | 0.043   |
| 0.0015   | 715P1525900L           | 1.25 (31.8) | .35 (8.9)  | .40 (10.2) | .65 (16.5)       | 58000                     | 0.031        | 0.044   |
| 0.0018   | 715P1825900L           | 1.25 (31.8) | .37 (9.4)  | .42 (10.7) | .67 (17.0)       | 53000                     | 0.031        | 0.044   |
| 0.0022   | 715P2225900L           | 1.25 (31.8) | .39 (9.9)  | .45 (11.4) | .69 (17.5)       | 48000                     | 0.031        | 0.044   |
| 0.0027   | 715P2725900L           | 1.25 (31.8) | .42 (10.7) | .47 (11.9) | .70 (17.8)       | 43000                     | 0.031        | 0.044   |
| 0.0033   | 715P3325900L           | 1.25 (31.8) | .45 (11.4) | .50 (12.7) | .72 (18.3)       | 39000                     | 0.031        | 0.046   |
| 0.0039   | 715P3925900L           | 1.25 (31.8) | .47 (11.9) | .53 (13.5) | .75 (19.1)       | 36000                     | 0.031        | 0.046   |
| 0.0047   | 715P4725900L           | 1.25 (31.8) | .51 (13.0) | .56 (14.2) | .81 (20.6)       | 33000                     | 0.031        | 0.047   |
| 0.0056   | 715P5625900L           | 1.25 (31.8) | .54 (13.7) | .60 (15.3) | .85 (21.6)       | 30000                     | 0.031        | 0.048   |
| 0.0068   | 715P6825900L           | 1.25 (31.8) | .58 (14.7) | .64 (16.3) | .89 (22.6)       | 27000                     | 0.031        | 0.049   |
| 0.0082   | 715P8225900L           | 1.25 (31.8) | .63 (16.0) | .69 (17.5) | .93 (23.6)       | 25000                     | 0.032        | 0.051   |
| 0.01   | 715P1035900L           | 1.25 (31.8) | .68 (17.3) | .73 (18.5) | .98 (24.9)       | 23000                     | 0.032        | 0.053   |
| <b>Type 717P, 900 Vac Standard Sizes/Ratings</b> |                        |             |            |            |                  |                           |              |         |
| 0.00047  | 717P4715900L           | 1.25 (31.8) | .20 (5.1)  | .37 (9.4)  | .62 (15.8)       | 104000                    | 0.031        | 0.043   |
| 0.00056  | 717P5615900L           | 1.25 (31.8) | .21 (5.4)  | .38 (9.7)  | .63 (16.0)       | 95000                     | 0.031        | 0.043   |
| 0.00068  | 717P6815900L           | 1.25 (31.8) | .23 (5.9)  | .39 (9.9)  | .64 (16.3)       | 86000                     | 0.031        | 0.043   |
| 0.00082  | 717P8215900L           | 1.25 (31.8) | .23 (5.9)  | .40 (10.2) | .65 (16.5)       | 78000                     | 0.031        | 0.043   |
| 0.001  | 717P1025900L           | 1.25 (31.8) | .23 (5.9)  | .43 (10.9) | .68 (17.3)       | 71000                     | 0.031        | 0.043   |
| 0.0012   | 717P1225900L           | 1.25 (31.8) | .25 (6.4)  | .44 (11.2) | .69 (17.5)       | 65000                     | 0.031        | 0.043   |
| 0.0015   | 717P1525900L           | 1.25 (31.8) | .27 (6.9)  | .47 (11.9) | .72 (18.3)       | 58000                     | 0.031        | 0.044   |
| 0.0018   | 717P1825900L           | 1.25 (31.8) | .27 (6.9)  | .52 (13.2) | .77 (19.6)       | 53000                     | 0.031        | 0.044   |
| 0.0022   | 717P2225900L           | 1.25 (31.8) | .30 (7.6)  | .54 (13.7) | .79 (20.1)       | 48000                     | 0.031        | 0.044   |
| 0.0027   | 717P2725900L           | 1.25 (31.8) | .32 (7.6)  | .57 (14.5) | .82 (20.8)       | 43000                     | 0.031        | 0.044   |
| 0.0033   | 717P3325900L           | 1.25 (31.8) | .33 (8.4)  | .63 (16.0) | .88 (22.4)       | 39000                     | 0.031        | 0.046   |
| 0.0039   | 717P3925900L           | 1.25 (31.8) | .36 (9.2)  | .66 (16.8) | .91 (23.1)       | 36000                     | 0.031        | 0.046   |
| 0.0047   | 717P4725900L           | 1.25 (31.8) | .39 (9.9)  | .69 (17.5) | .94 (23.9)       | 33000                     | 0.031        | 0.047   |
| 0.0056   | 717P5625900L           | 1.25 (31.8) | .43 (10.9) | .73 (18.5) | .98 (24.9)       | 30000                     | 0.031        | 0.048   |
| 0.0068   | 717P6825900L           | 1.25 (31.8) | .47 (11.9) | .78 (19.8) | 1.03 (26.2)      | 27000                     | 0.031        | 0.049   |
| 0.0082   | 717P8225900L           | 1.25 (31.8) | .49 (12.5) | .85 (23.1) | 1.10 (27.9)      | 25000                     | 0.032        | 0.051   |
| 0.01   | 717P1035900L           | 1.25 (31.8) | .54 (13.7) | .91 (23.1) | 1.16 (29.5)      | 23000                     | 0.032        | 0.053   |

# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

## 900 Vac Performance Characteristics



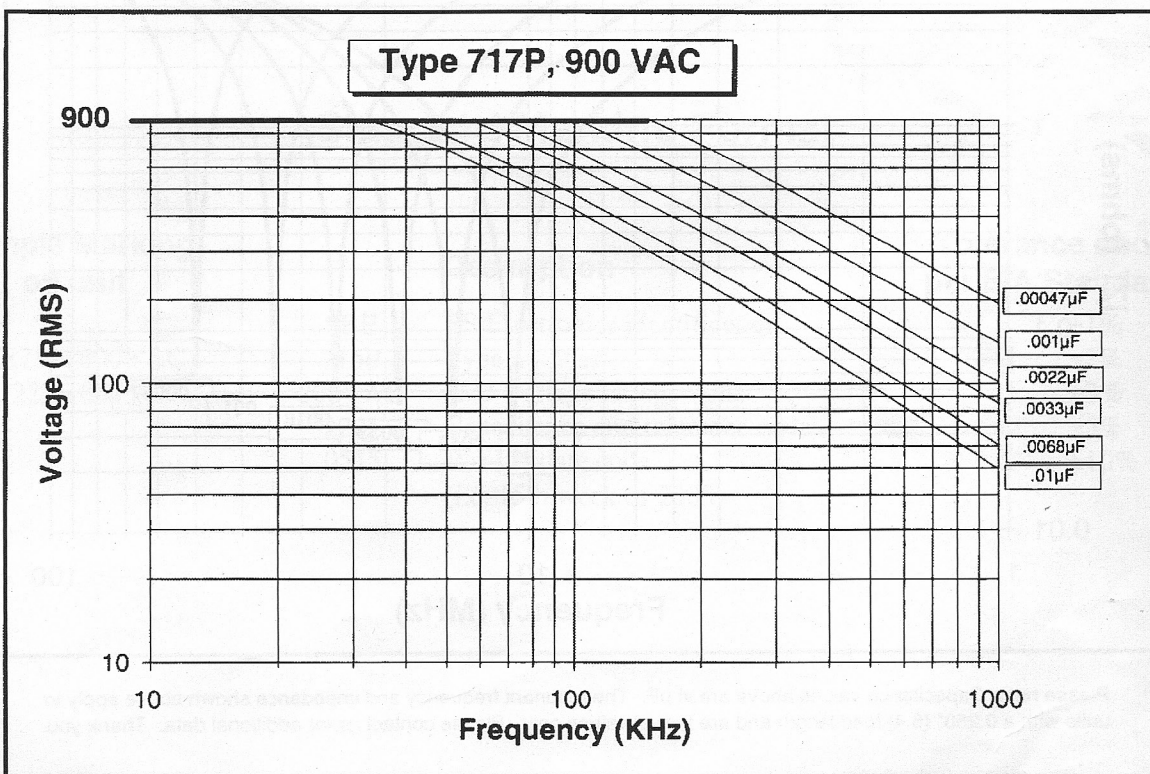
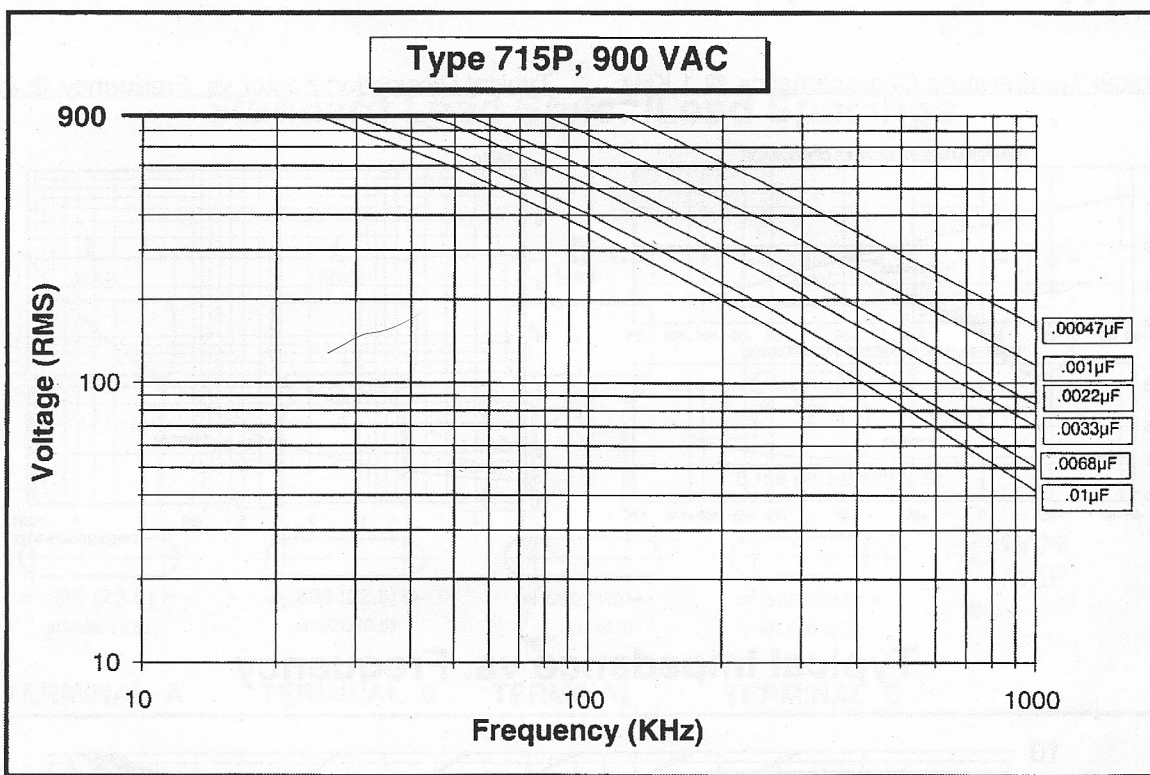
## Typical Impedance vs. Frequency



# Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

## 900 Vac Performance Characteristics

### RMS Voltage vs. Frequency @ 85 °C







Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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