Type 715P/717P, Orange Drop®, 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 performacnce. 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 µF
Capacitance Tolerance	±1% to ±10%
Rated Voltage	800/900 Vac (1800/2000 Vdc)
Operating Temperature Range	–55 ºC to 85 ºC +105 ºC 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 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 MΩ minumum at +25 ºC 20,000 MΩ minumum at +85 ºC 2,000 MΩ minumum at +105 ºC
RoHS Compliant	

Part Numbering System

Dimensions in inches, metric (mm) in parenthesis.

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

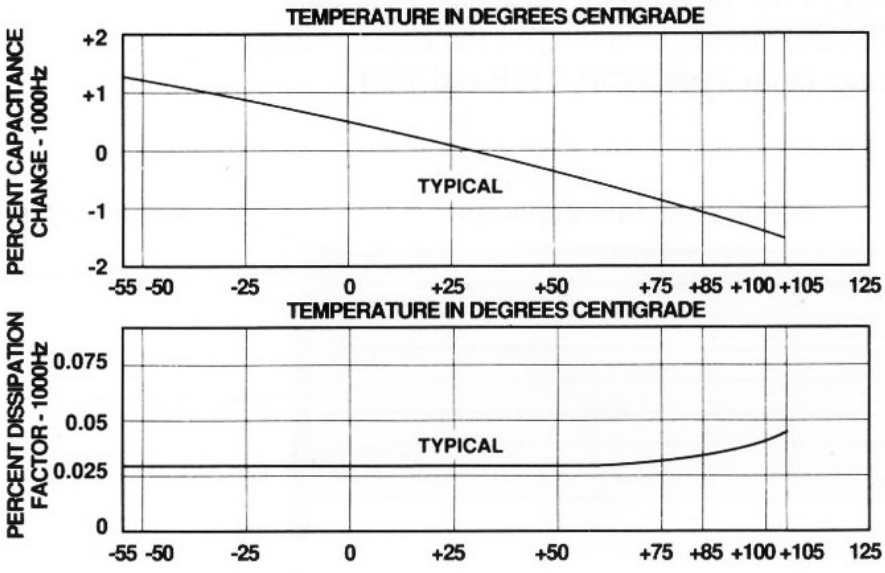
*Terminal C has a lead length of 0.156 (4.0) ±0.020 (0.5) therefore it is not necessary to indicate the lead length digit. The Captive Crimp is designed for circuit boards with hole sizes of .044 (1.1) to .048 (1.2) in diameter.

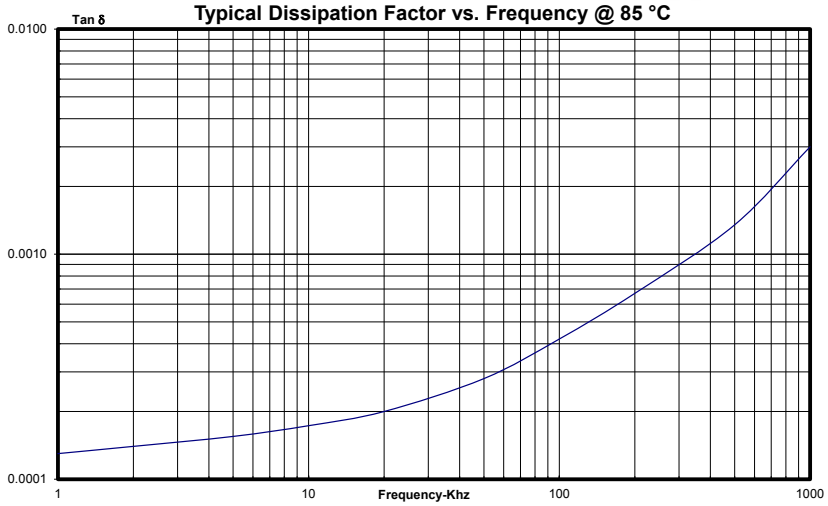
Type 715P/717P, Orange Drop®,High Voltage, Polypropylene Film/Foil

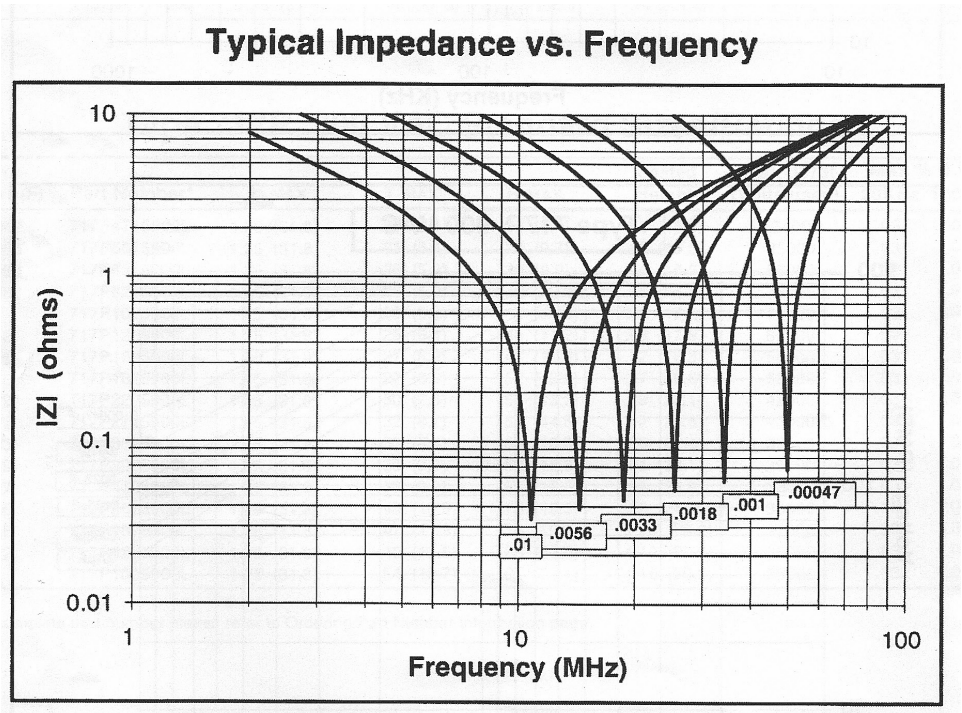
Ratings

Cap. (µF)	Catalog Part Number	L Max	Dia Max	H Max	Seated Height	Max dV/dt (Volts/µsec)	Max % D.F. @ 20 KHz	Max % D.F. @ 100 KHz
Type 715P, 800 Vac Standard Sizes/Ratings								
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
Type 717P, 800 Vac Standard Sizes/Ratings								
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

800 Vac Performance Characteristics

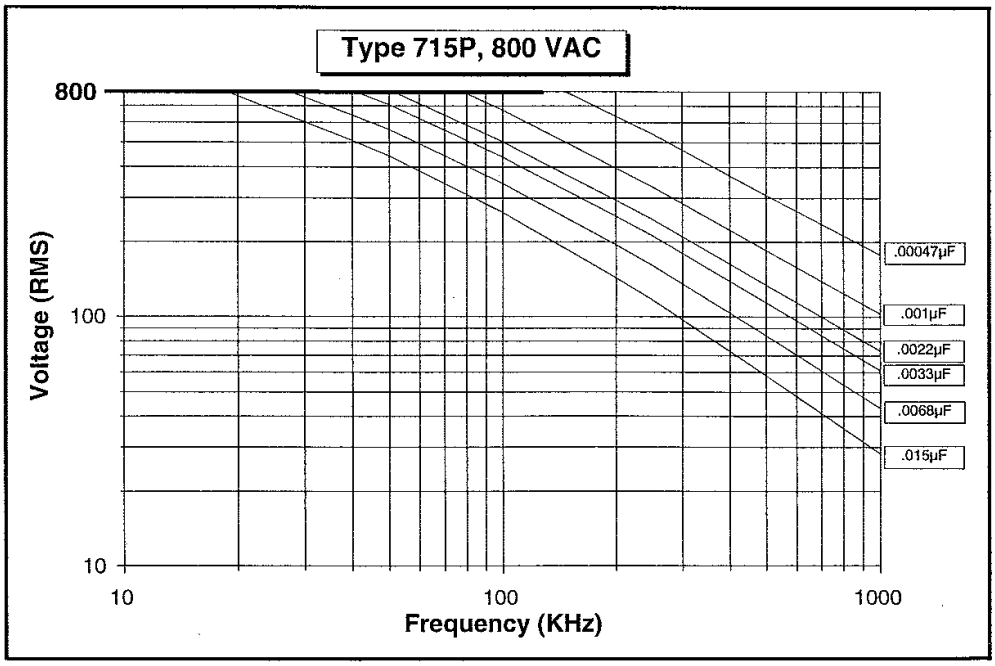


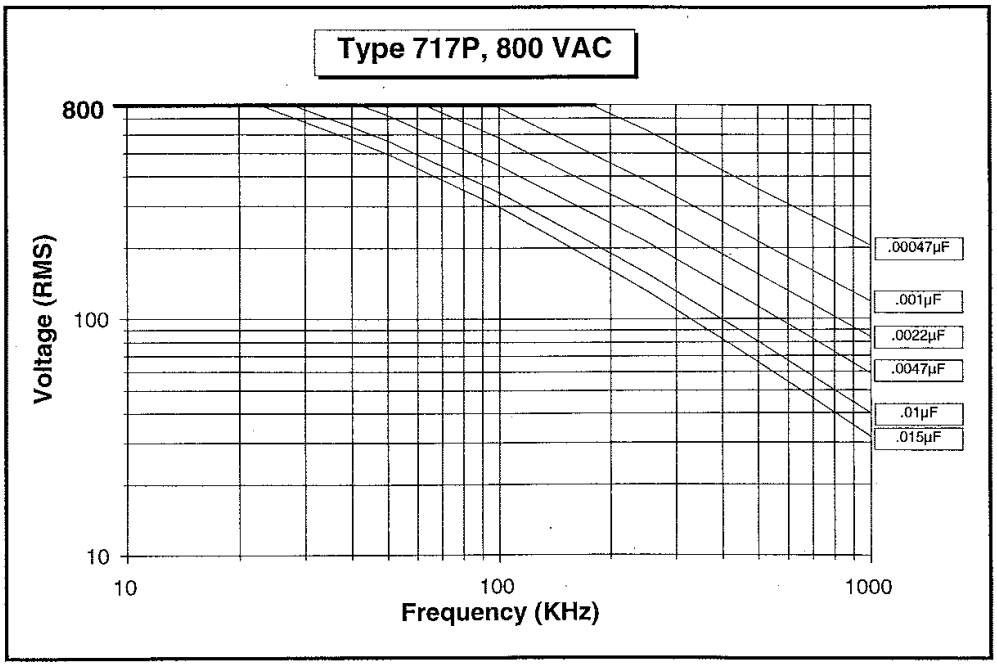




800 Vac Performance Characteristics

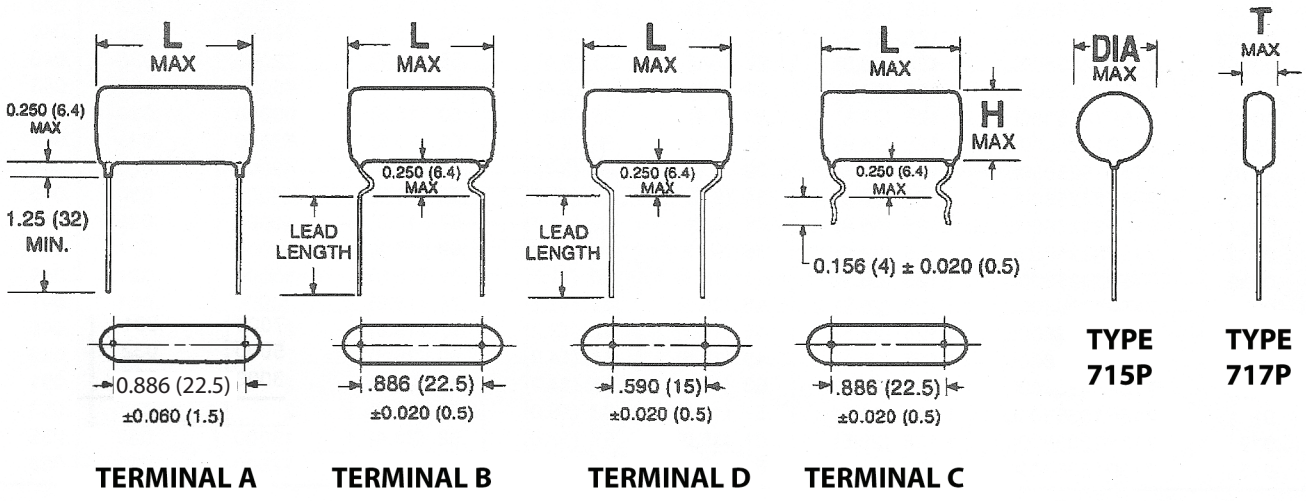
RMS Voltage vs. Frequency @ +85 °C





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

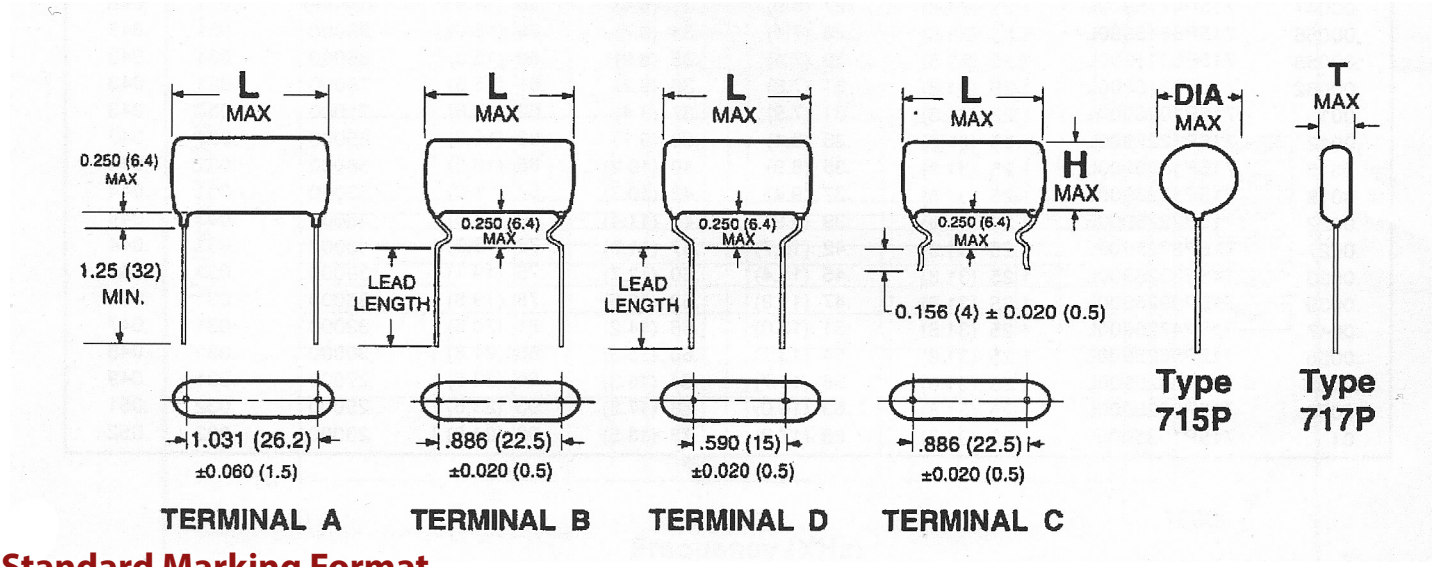
Standard Lead Styles/Lead Spacing 800 Vac



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

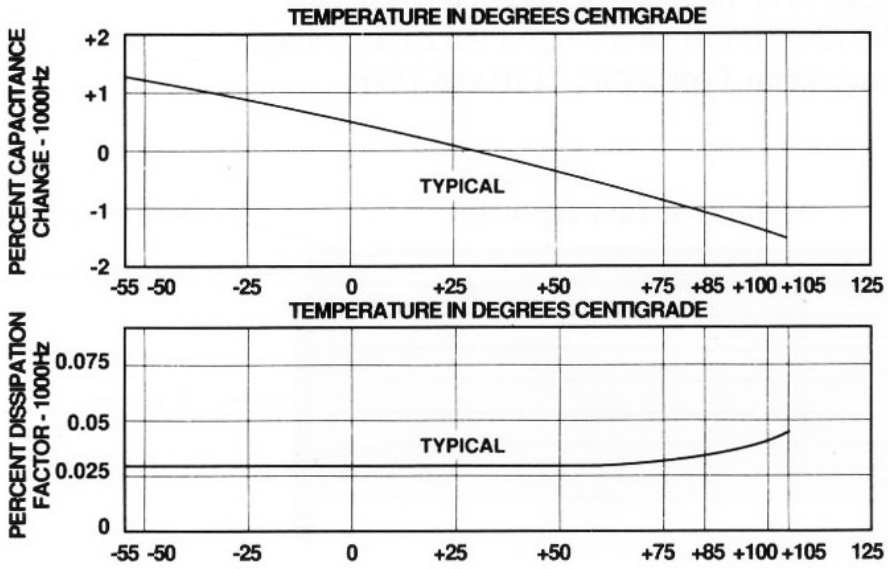
Sample Marking on unit		Description	Tolerance codes per EIA standards	
	CDE	CDE Electronics identification	F	±1%
CDE715P900VAC	**715P**	Type number	G	±2%
222J 9810	**900VAC**	AC Voltage rating, Volts	H	±3%
	222J	Capacitance and tolerance code	J	±5%
	9810	Weekly date code (i.e. 10th wk of 1998)	K	±10%

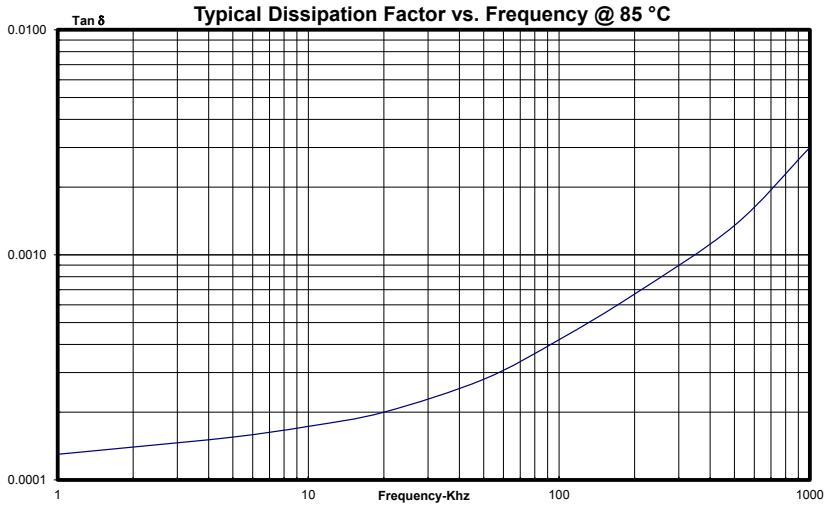
Type 715P/717P, Orange Drop®, High Voltage, Polypropylene Film/Foil

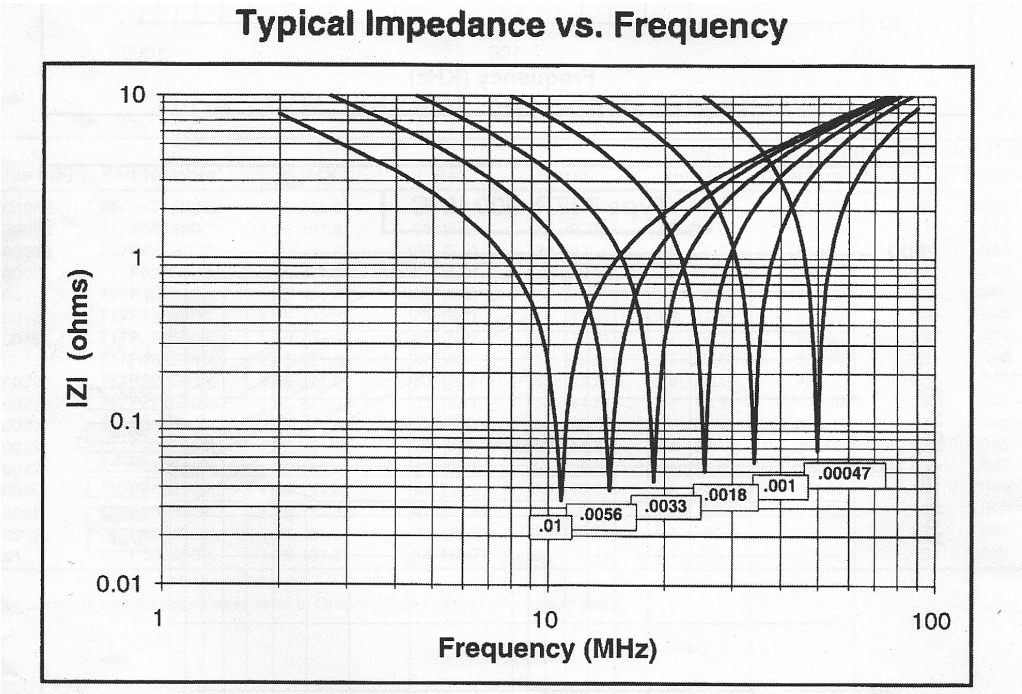
Ratings

Cap. (µF)	Catalog Part Number	L Max	Dia Max	H Max	Seated Height	Max dV/dt (Volts/µsec)	Max % D.F. @ 20 KHz	Max % D.F. @ 100 KHz
Type 715P, 900 Vac Standard Sizes/Ratings								
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
Type 717P, 900 Vac Standard Sizes/Ratings								
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

900 Vac Performance Characteristics







900 Vac Performance Characteristics

RMS Voltage vs. Frequency @ 85 °C