

F1710-305V

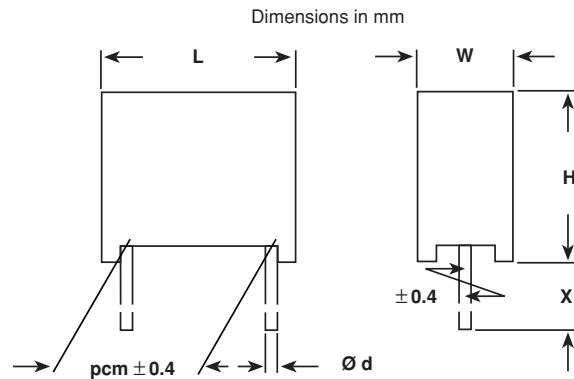
Vishay Roederstein



AC-Capacitors, Suppression Capacitors Class Y2 (X1) AC 305V (MKT)

| LEAD LENGTH (X) (mm) | | Code Pos.11 | ORDERING CODE** (see page 49 - Document No. 26511) | | | | | |
|----------------------------|---|----------------|---|-----|---|---|----|-------|
| | | | 1-4 | 5-7 | 8 | 9 | 10 | 11-13 |
| 4 ⁻¹ | B | | 1710 | ... | . | 3 | . | B . 0 |
| 6 ⁻¹ | C | | 1710 | ... | . | 3 | . | C . 0 |
| 15 ⁻¹ | D | | 1710 | ... | . | 3 | . | D . 0 |
| 30 ⁺⁵ | L | | 1710 | ... | . | 3 | . | L . 0 |

| pcm (mm) | Pitch Code Pos. 10 | Terminal Ød (mm) |
|-------------|-----------------------|---------------------|
| 10 | D | 0.6 |
| > 10 | F, I or K | 0.8 |

**REFERENCE STANDARDS:**

EN/IEC 60068; IEC 60384-14/2 1993/07
UL 1414; CSA C22 2 No. 1-M 1994

DIELECTRIC: Polyester film**ELECTRODES:** Metal evaporated**RATED VOLTAGE:** AC305V; 50/60Hz**PERMISSABLE DC VOLTAGE:** DC1000V**CAPACITANCE RANGE:** E12 series 1000pFY2 -0.1µFY2(X1)
preferred values acc. to E6**CAPACITANCE TOLERANCE:**

Standard ± 20%; on request ± 10% and ± 5%

TERMINALS:

Radial tinned copper wire

COATING: Plastic case, epoxy resin sealed,
flame retardant; UL 94V-0**CLIMATIC TESTING CLASS ACC. TO****EN/IEC 60068-1:** 40/100/56**TEST VOLTAGE:**

(Electrode/electrode): DC 5000V for 1 sec. at 25°C;
Between interconnected terminations and case (foil method);
AC 2500V for 2 sec. at 25°C

DISSIPATION FACTOR TAN δ: < 1% measured at 1kHz**INSULATION RESISTANCE:**

30 GΩ average value

15 GΩ average value

FURTHER TECHNICAL DATA:

See page 71 (Document Number 26525)

| MAXIMUM PULSE RISE TIME: (du/dt) in V/µs | | | |
|--|------------|------|------|
| RATED VOLTAGE | PITCH (mm) | | |
| | 10.0/15.0 | 22.5 | 27.5 |
| AC 305V | 200 | 150 | 100 |

| CAPACITANCE Code Pos 5-7 (as class Y2 and X1) | TOLERANCE Code Pos 8 J = ±5% K = ±10% M = ±20% | PITCH Code Pos. 10 (mm) | BOX NO | DIMENSIONS W x H x L (mm) ^{+0.2 / -0.4mm} | WEIGHT (Lead Length 6 ⁻¹ mm) (g) | QUANTITY PACKAGE (Lead Length ≤ 6 ⁻¹ mm) (pcs)* | ORDERING CODE** | | | | | Lead Length Design Design |
|--|--|----------------------------------|-----------|--|--|--|-----------------|---------|-----------|---------|-------|---------------------------------|
| | | | | | | | TYPE | C-Value | Tolerance | Voltage | Pitch | |
| | | | | | | | 1-4 | 5-7 | 8 | 9 | 10 | 11-13 |
| 1000 pF | M | 10.0 | D | 32 | 3.8 x 8.8 x 12.8 | 0.6 | 1710 | 210 | M | 3 | D | .B0 |
| 1200 pF | M | 10.0 | D | 32 | 3.8 x 8.8 x 12.8 | 0.6 | 1710 | 212 | M | 3 | D | .B0 |
| 1500 pF | M | 10.0 | D | 32 | 3.8 x 8.8 x 12.8 | 0.6 | 1710 | 215 | M | 3 | D | .B0 |
| 1800 pF | M | 10.0 | D | 32 | 3.8 x 8.8 x 12.8 | 0.6 | 1710 | 218 | M | 3 | D | .B0 |
| 2200 pF | M | 10.0 | D | 02 | 4.3 x 9.3 x 12.8 | 0.8 | 1710 | 222 | M | 3 | D | .B0 |
| 2700 pF | M | 10.0 | D | 03 | 5.3 x 10.3 x 12.8 | 1.0 | 1710 | 227 | M | 3 | D | .B0 |
| 3300 pF | M | 10.0 | D | 03 | 5.3 x 10.3 x 12.8 | 1.0 | 1710 | 233 | M | 3 | D | .B0 |
| 3900 pF | M | 10.0 | D | 03 | 5.3 x 10.3 x 12.8 | 1.0 | 1710 | 239 | M | 3 | D | .B0 |
| 4700 pF | M | 10.0 | D | 03 | 5.3 x 10.3 x 12.8 | 1.0 | 1710 | 247 | M | 3 | D | .B0 |
| 5600 pF | M | 10.0 | D | 04 | 6.3 x 11.3 x 12.8 | 1.3 | 1710 | 256 | M | 3 | D | .B0 |
| 6800 pF | M | 10.0 | D | 04 | 6.3 x 11.3 x 12.8 | 1.3 | 1710 | 268 | M | 3 | D | .B0 |
| 8200 pF | M | 10.0 | D | 04 | 6.3 x 11.3 x 12.8 | 1.3 | 1710 | 282 | M | 3 | D | .B0 |
| 0.010 µF | M | 10.0 | D | 04 | 6.3 x 12.3 x 12.8 | 1.3 | 1710 | 310 | M | 3 | D | .B0 |

* Further information about packaging quantities with different lead length and/or taped versions.

See page 16 (Document No 27608 Packaging Quantities). Use Box No. as reference

** These capacitors can be delivered on continuous tape and reel see page 14/15 (Document Number 26526)

Ordering example: 1710-210 M 2 D CB0

B0 = Bulk Pack

T0 = Tray/Carrier

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| CAPACITANCE Code Pos 5-7 (as class Y2 and X1) | TOLERANCE Code Pos 8 J = ±5% K = ±10% M = ±20% | PITCH | | BOX NO | DIMENSIONS W x H x L (mm) ^{+0.2 / -0.4mm} | WEIGHT (Lead Length 6 [*] mm) (g) | QUANTITY PACKAGE (Lead Length ≤6 [*] mm) (pcs) [*] | ORDERING CODE** | | | | | |
|--|--|-------|-----------------|-----------|--|---|--|-----------------|----------------|----------------|--------------|-------------|--------------------------------|
| | | (mm) | Code Pos. 10 | | | | | TYPE 1-4 | C-Value 5-7 | Tolerance 8 | Voltage 9 | Pitch 10 | Lead Length Design 11-13 |
| 1000 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 210 | M | 3 | F | . B0 |
| 1200 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 212 | M | 3 | F | . B0 |
| 1500 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 215 | M | 3 | F | . B0 |
| 1800 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 218 | M | 3 | F | . B0 |
| 2200 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 222 | M | 3 | F | . B0 |
| 2700 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 227 | M | 3 | F | . B0 |
| 3300 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 233 | M | 3 | F | . B0 |
| 3900 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 239 | M | 3 | F | . B0 |
| 4700 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 247 | M | 3 | F | . B0 |
| 5600 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 256 | M | 3 | F | . B0 |
| 6800 pF | M | 15 | F | 05 | 5.3 x 10.3 x 17.8 | 1.4 | 750 | 1710 | 268 | M | 3 | F | . B0 |
| 8200 pF | M | 15 | F | 06 | 6.3 x 12.3 x 17.8 | 2.0 | 500 | 1710 | 282 | M | 3 | F | . B0 |
| 0.01 μF | M | 15 | F | 06 | 6.3 x 12.3 x 17.8 | 2.0 | 500 | 1710 | 310 | M | 3 | F | . B0 |
| 0.012 μF | M | 15 | F | 07 | 7.3 x 13.3 x 17.8 | 2.4 | 450 | 1710 | 312 | M | 3 | F | . B0 |
| 0.015 μF | M | 15 | F | 07 | 7.3 x 13.3 x 17.8 | 2.4 | 450 | 1710 | 315 | M | 3 | F | . B0 |
| 0.018 μF | M | 15 | F | 28 | 8.3 x 17.3 x 17.8 | 3.4 | 300 | 1710 | 318 | M | 3 | F | . B0 |
| 0.022 μF | M | 15 | F | 28 | 8.3 x 17.3 x 17.8 | 3.4 | 300 | 1710 | 322 | M | 3 | F | . B0 |
| 0.027 μF | M | 22.5 | I | 09 | 6.3 x 14.3 x 26.3 | 3.5 | 260 | 1710 | 327 | M | 3 | I | . . 0 |
| 0.033 μF | M | 22.5 | I | 09 | 6.3 x 14.3 x 26.3 | 3.5 | 260 | 1710 | 333 | M | 3 | I | . . 0 |
| 0.039 μF | M | 22.5 | I | 11 | 7.3 x 15.3 x 26.3 | 3.9 | 235 | 1710 | 339 | M | 3 | I | . . 0 |
| 0.047 μF | M | 22.5 | I | 12 | 8.3 x 16.3 x 26.3 | 4.8 | 200 | 1710 | 347 | M | 3 | I | . . 0 |
| 0.056 μF | M | 22.5 | I | 13 | 10.3 x 18.3 x 26.3 | 6.6 | 170 | 1710 | 356 | M | 3 | I | . . 0 |
| 0.068 μF | M | 22.5 | I | 13 | 10.3 x 18.3 x 26.3 | 6.6 | 170 | 1710 | 368 | M | 3 | I | . . 0 |
| 0.082 μF | M | 27.5 | K | 14 | 11.0 x 20.3 x 31.3 | 9.4 | 125 | 1710 | 382 | M | 3 | I | . . 0 |
| 0.1 μF | M | 27.5 | K | 14 | 11.0 x 20.3 x 31.3 | 9.4 | 125 | 1710 | 410 | M | 3 | I | . . 0 |

Preferred values in bold print.

* Further information about packaging quantities with different leadlength and/or taped versions.

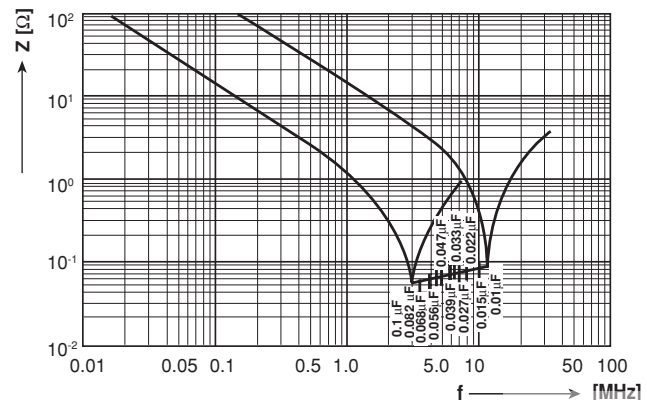
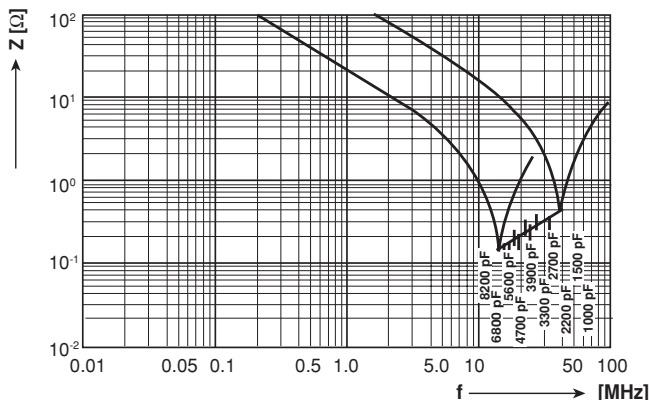
See page 16 (Document No 27608 Packing Quantities). Use Box No as reference

**These capacitors can be delivered on continuous tape and reel see page 14/15 (Document Number 26535)

The ordering code is then: F1710 - . . . M 3 . 0R0 at H = 16.5mm, F1710 - . . . M 3 . 0W0 at H = 18.5mm.

APPROVALS

| COUNTRY | SPECIFICATION | ELECTRICAL VALUES | APPROVAL REFERENCE | APPROVAL MARK |
|--|---|--------------------------------------|---------------------|---------------|
| U.S.A (for AC 250V) | UL 1283 UL 1414 | 1000pFY - 0.1μFY 1000pFY - 0.1μFY | E 76297 E 100682 | |
| Canada (for AC 250V) | C 22.2 No. 1-M 1994 | 1000pFY - 0.1μFY | LR 64546-7 | |
| CB TEST-CERTIFICATE (for AC 305V) | | 1000pF - 0.1μFY2 (X1) | DE 1-10088 | |
| Germany (for AC 305V) | EN 132 400, 1999-06 IEC 60384-14, 2nd edition, 1995-06 | 1000pF - 0.1μFY2 (X1) | 136954L | |



Impedance (Z) as a function of frequency (f) at $T_a = 20^\circ\text{C}$ (average). Measurement with lead length 6mm.

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