

# Type 941C High dV/dt, Metallized Polypropylene Film Capacitors

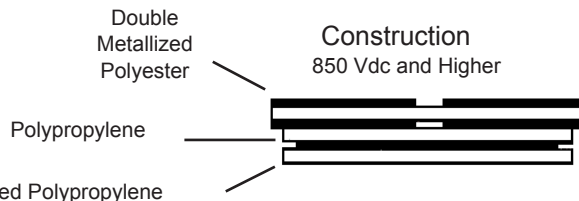
## Oval Axial Leaded Capacitors



Type 941C flat, oval film capacitors are constructed with polypropylene film and dual metallized electrodes for both self healing properties and high peak current carrying capability (dV/dt). This series features low ESR characteristics, excellent high frequency and high voltage capabilities.



Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).



## Specifications

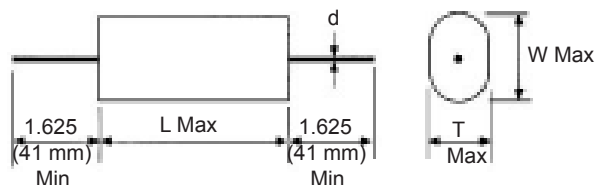
**Capacitance Range:** .01  $\mu\text{F}$  to 4.7  $\mu\text{F}$

**Voltage Range:** 600 to 3000 Vdc (275 to 750 Vac, 60 Hz)

**Capacitance Tolerance:**  $\pm 10\%$

**Operating Temperature Range:**  $-55^{\circ}\text{C}$  to  $105^{\circ}\text{C}$

\*Full rated at  $85^{\circ}\text{C}$ , Derate linearly to 50% rated voltage at  $105^{\circ}\text{C}$



**Note:** Refer to Application Guide for test conditions. Contact us for other capacitance values, sizes and performance specifications

## Ratings

| Cap.                     | Catalog Part Number | T            | W            | L            | d           | Typical ESR   | Typical ESL | dV/dt               | I <sub>peak</sub> | I <sub>RMS</sub> 70 °C |
|--------------------------|---------------------|--------------|--------------|--------------|-------------|---------------|-------------|---------------------|-------------------|------------------------|
| ( $\mu\text{F}$ )        |                     | Inches (mm)  | Inches (mm)  | Inches (mm)  | Inches (mm) | (m $\Omega$ ) | (nH)        | (V/ $\mu\text{s}$ ) | (A)               | 100 kHz (A)            |
| <b>600 Vdc (275 Vac)</b> |                     |              |              |              |             |               |             |                     |                   |                        |
| .10                      | 941C6P1K-F          | .223 (5.7)   | .470 (11.9)  | 1.339 (34.0) | .032 (0.8)  | 28            | 17          | 196                 | 20                | 2.8                    |
| .15                      | 941C6P15K-F         | .266 (6.8)   | .513 (13.0)  | 1.339 (34.0) | .032 (0.8)  | 13            | 18          | 196                 | 29                | 4.4                    |
| .22                      | 941C6P22K-F         | .318 (8.1)   | .565 (14.3)  | 1.339 (34.0) | .032 (0.8)  | 12            | 19          | 196                 | 43                | 4.9                    |
| .33                      | 941C6P33K-F         | .387 (9.8)   | .634 (16.1)  | 1.339 (34.0) | .032 (0.8)  | 9             | 19          | 196                 | 65                | 6.1                    |
| .47                      | 941C6P47K-F         | .462 (11.7)  | .709 (18.0)  | 1.339 (34.0) | .032 (0.8)  | 7             | 20          | 196                 | 92                | 7.6                    |
| .68                      | 941C6P68K-F         | .558 (14.2)  | .805 (20.4)  | 1.339 (34.0) | .040 (1.0)  | 6             | 21          | 196                 | 134               | 8.9                    |
| 1.0                      | 941C6W1K-F          | .680 (17.3)  | .927 (23.5)  | 1.339 (34.0) | .040 (1.0)  | 6             | 23          | 196                 | 196               | 9.9                    |
| 1.5                      | 941C6W1P5K-F        | .837 (21.3)  | 1.084 (27.5) | 1.339 (34.0) | .047 (1.2)  | 5             | 24          | 196                 | 295               | 12.1                   |
| 2.0                      | 941C6W2K-F          | .717 (18.2)  | 1.088 (27.6) | 1.811 (46.0) | .047 (1.2)  | 5             | 28          | 128                 | 255               | 13.1                   |
| 3.3                      | 941C6W3P3K-F        | .886 (22.5)  | 1.253 (31.8) | 2.126 (54.0) | .047 (1.2)  | 4             | 34          | 105                 | 346               | 17.3                   |
| 4.7                      | 941C6W4P7K-F        | 1.125 (28.6) | 1.311 (33.3) | 2.126 (54.0) | .047 (1.2)  | 4             | 36          | 105                 | 492               | 18.7                   |
| <b>850 Vdc (450 Vac)</b> |                     |              |              |              |             |               |             |                     |                   |                        |
| .15                      | 941C8P15K-F         | .378(9.6)    | .625 (15.9)  | 1.339 (34.0) | .032 (0.8)  | 8             | 19          | 713                 | 107               | 6.4                    |
| .22                      | 941C8P22K-F         | .458(11.6)   | .705 (17.9)  | 1.339 (34.0) | .032 (0.8)  | 8             | 20          | 713                 | 157               | 7.0                    |
| .33                      | 941C8P33K-F         | .562(14.3)   | .810 (20.6)  | 1.339 (34.0) | .040 (1.0)  | 7             | 21          | 713                 | 235               | 8.3                    |
| .47                      | 941C8P47K-F         | .674(17.1)   | .922 (23.4)  | 1.339 (34.0) | .040 (1.0)  | 5             | 22          | 713                 | 335               | 10.8                   |
| .68                      | 941C8P68K-F         | .815(20.7)   | 1.063 (27.0) | 1.339 (34.0) | .047 (1.2)  | 4             | 24          | 713                 | 485               | 13.3                   |
| 1.0                      | 941C8W1K-F          | .679(17.2)   | 1.050 (26.7) | 1.811 (46.0) | .047 (1.2)  | 5             | 28          | 400                 | 400               | 12.7                   |
| 1.5                      | 941C8W1P5K-F        | .847(21.5)   | 1.218 (30.9) | 1.811 (46.0) | .047 (1.2)  | 4             | 30          | 400                 | 600               | 15.8                   |
| 2.0                      | 941C8W2K-F          | .990(25.1)   | 1.361 (34.6) | 1.811 (46.0) | .047 (1.2)  | 3             | 31          | 400                 | 800               | 19.8                   |
| 2.2                      | 941C8W2P2K-F        | 1.042(26.5)  | 1.413 (35.9) | 1.811 (46.0) | .047 (1.2)  | 3             | 32          | 400                 | 880               | 20.4                   |
| 2.5                      | 941C8W2P5K-F        | 1.117(28.4)  | 1.488 (37.8) | 1.811 (46.0) | .047 (1.2)  | 3             | 33          | 400                 | 1000              | 21.2                   |

NOTE: Refer to Application Guide for test conditions. Contact us for other capacitance values, sizes and performance specifications

# Type 941C High dV/dt, Metallized Polypropylene Film Capacitors

| Cap.<br>( $\mu$ F)        | Catalog<br>Part Number | T<br>Inches(mm) | W<br>Inches (mm) | L<br>Inches (mm) | d<br>Inches (mm) | Typical<br>ESR<br>(m $\Omega$ ) | Typical<br>ESL<br>(nH) | dV/dt<br>(V/ $\mu$ s) | I peak<br>(A) | I <sub>RMS</sub><br>70 °C<br>100 kHz<br>(A) |
|---------------------------|------------------------|-----------------|------------------|------------------|------------------|---------------------------------|------------------------|-----------------------|---------------|---------------------------------------------|
| <b>1000 Vdc (500 Vac)</b> |                        |                 |                  |                  |                  |                                 |                        |                       |               |                                             |
| .15                       | 941C10P15K-F           | .441(11.2)      | .688 (17.5)      | 1.339 (34.0)     | .032 (0.8)       | 7                               | 20                     | 856                   | 128           | 7.4                                         |
| .22                       | 941C10P22K-F           | .535(13.6)      | .782 (19.9)      | 1.339 (34.0)     | .040 (1.0)       | 7                               | 21                     | 856                   | 188           | 8.1                                         |
| .33                       | 941C10P33K-F           | .658(16.7)      | .906 (23.0)      | 1.339 (34.0)     | .040 (1.0)       | 6                               | 22                     | 856                   | 283           | 9.7                                         |
| .47                       | 941C10P47K-F           | .790(20.1)      | 1.037 (26.3)     | 1.339 (34.0)     | .047 (1.2)       | 5                               | 24                     | 856                   | 402           | 11.7                                        |
| .68                       | 941C10P68K-F           | .955(24.2)      | 1.203 (30.5)     | 1.339 (34.0)     | .047 (1.2)       | 5                               | 26                     | 856                   | 582           | 13.0                                        |
| 1.0                       | 941C10W1K-F            | .803(20.4)      | 1.174 (29.8)     | 1.811 (46.0)     | .047 (1.2)       | 5                               | 24                     | 480                   | 480           | 13.8                                        |
| 1.5                       | 941C10W1P5K-F          | 1.001(25.4)     | 1.372 (34.8)     | 1.811 (46.0)     | .047 (1.2)       | 4                               | 31                     | 480                   | 720           | 17.3                                        |
| 2.0                       | 941C10W2K-F            | 1.169(29.7)     | 1.540 (39.1)     | 1.811 (46.0)     | .047 (1.2)       | 3                               | 33                     | 480                   | 960           | 21.7                                        |
| <b>1200 Vdc (500 Vac)</b> |                        |                 |                  |                  |                  |                                 |                        |                       |               |                                             |
| .10                       | 941C12P1K-F            | .462(11.7)      | .709 (18.0)      | 1.339 (34.0)     | .032 (0.8)       | 9                               | 20                     | 1142                  | 114           | 6.7                                         |
| .15                       | 941C12P15K-F           | .568(14.4)      | .815 (20.7)      | 1.339 (34.0)     | .040 (1.0)       | 7                               | 21                     | 1142                  | 171           | 8.3                                         |
| .22                       | 941C12P22K-F           | .691(17.5)      | .938 (23.8)      | 1.339 (34.0)     | .040 (1.0)       | 7                               | 23                     | 1142                  | 251           | 9.2                                         |
| .33                       | 941C12P33K-F           | .575(14.6)      | .946 (24.0)      | 1.811 (46.0)     | .040 (1.0)       | 7                               | 21                     | 640                   | 211           | 10.0                                        |
| .47                       | 941C12P47K-F           | .698(17.7)      | 1.069 (27.1)     | 1.811 (46.0)     | .047 (1.2)       | 7                               | 28                     | 640                   | 301           | 10.9                                        |
| .68                       | 941C12P68K-F           | .854(21.7)      | 1.225 (31.1)     | 1.811 (46.0)     | .047 (1.2)       | 6                               | 30                     | 640                   | 435           | 13.0                                        |
| 1.0                       | 941C12W1K-F            | 1.053(26.7)     | 1.423 (36.1)     | 1.811 (46.0)     | .047 (1.2)       | 5                               | 32                     | 640                   | 640           | 15.9                                        |
| 1.5                       | 941C12W1P5K-F          | 1.088(27.6)     | 1.582 (40.2)     | 2.126 (54.0)     | .047 (1.2)       | 4                               | 36                     | 502                   | 754           | 19.7                                        |
| <b>1600 Vdc (630 Vac)</b> |                        |                 |                  |                  |                  |                                 |                        |                       |               |                                             |
| .10                       | 941C16P1K-F            | .565 (14.3)     | .813 (20.6)      | 1.339 (34.0)     | .040 (1.0)       | 7                               | 21                     | 1427                  | 143           | 8.3                                         |
| .15                       | 941C16P15K-F           | .696 (17.7)     | .943 (23.9)      | 1.339 (34.0)     | .040 (1.0)       | 5                               | 23                     | 1427                  | 214           | 11.0                                        |
| .22                       | 941C16P22K-F           | .848 (21.5)     | 1.095 (27.8)     | 1.339 (34.0)     | .047 (1.2)       | 7                               | 24                     | 1427                  | 314           | 10.3                                        |
| .33                       | 941C16P33K-F           | .715 (18.2)     | 1.086 (27.6)     | 1.811 (46.0)     | .047 (1.2)       | 7                               | 23                     | 800                   | 264           | 11.0                                        |
| .47                       | 941C16P47K-F           | .867 (22.0)     | 1.238 (31.4)     | 1.811 (46.0)     | .047 (1.2)       | 6                               | 30                     | 800                   | 376           | 13.1                                        |
| .68                       | 941C16P68K-F           | 1.059 (26.9)    | 1.430 (36.3)     | 1.811 (46.0)     | .047 (1.2)       | 6                               | 32                     | 800                   | 544           | 14.5                                        |
| 1.0                       | 941C16W1K-F            | 1.303 (33.1)    | 1.674 (42.5)     | 1.811 (46.0)     | .047 (1.2)       | 5                               | 35                     | 800                   | 800           | 17.9                                        |
| 1.5                       | 941C16W1P5K-F          | 1.358 (34.5)    | 1.852 (47.0)     | 2.126 (54.0)     | .047 (1.2)       | 4                               | 39                     | 628                   | 942           | 22.2                                        |
| <b>2000 Vdc (630 Vac)</b> |                        |                 |                  |                  |                  |                                 |                        |                       |               |                                             |
| .022                      | 941C20S22K-F           | .313 (7.9)      | .561 (14.2)      | 1.339 (34.0)     | .032 (0.8)       | 35                              | 18                     | 1712                  | 38            | 2.8                                         |
| .033                      | 941C20S33K-F           | .382 (9.7)      | .629 (16.0)      | 1.339 (34.0)     | .032 (0.8)       | 20                              | 19                     | 1712                  | 57            | 4.1                                         |
| .047                      | 941C20S47K-F           | .456 (11.6)     | .703 (17.8)      | 1.339 (34.0)     | .032 (0.8)       | 12                              | 20                     | 1712                  | 80            | 5.7                                         |
| .068                      | 941C20S68K-F           | .550 (14.0)     | .797 (20.2)      | 1.339 (34.0)     | .040 (1.0)       | 8                               | 21                     | 1712                  | 116           | 7.7                                         |
| .10                       | 941C20P1K-F            | .670 (17.0)     | .917 (23.3)      | 1.339 (34.0)     | .040 (1.0)       | 7                               | 22                     | 1712                  | 171           | 9.1                                         |
| .15                       | 941C20P15K-F           | .557 (14.1)     | .928 (23.6)      | 1.811 (46.0)     | .040 (1.0)       | 7                               | 21                     | 960                   | 144           | 9.8                                         |
| .22                       | 941C20P22K-F           | .686 (17.4)     | 1.057 (26.8)     | 1.811 (46.0)     | .040 (1.0)       | 8                               | 28                     | 960                   | 211           | 10.1                                        |
| .33                       | 941C20P33K-F           | .856 (21.7)     | 1.227 (31.2)     | 1.811 (46.0)     | .047 (1.2)       | 8                               | 30                     | 960                   | 317           | 11.3                                        |
| .47                       | 941C20P47K-F           | 1.037 (26.3)    | 1.408 (35.8)     | 1.811 (46.0)     | .047 (1.2)       | 6                               | 32                     | 960                   | 451           | 14.4                                        |
| .56                       | 941C20P56K-F           | .941 (23.9)     | 1.436 (36.5)     | 2.126 (54.0)     | .047 (1.2)       | 7                               | 31                     | 754                   | 422           | 13.9                                        |
| .68                       | 941C20P68K-F           | 1.050 (26.7)    | 1.545 (39.2)     | 2.126 (54.0)     | .047 (1.2)       | 6                               | 35                     | 754                   | 513           | 15.8                                        |
| 1.0                       | 941C20W1K-F            | 1.303 (33.1)    | 1.797 (45.6)     | 2.126 (54.0)     | .047 (1.2)       | 5                               | 38                     | 754                   | 754           | 19.4                                        |
| <b>3000 Vdc (750 Vac)</b> |                        |                 |                  |                  |                  |                                 |                        |                       |               |                                             |
| .010                      | 941C30S1K-F            | .308 (7.8)      | .555 (14.1)      | 1.339 (34.0)     | .032 (0.8)       | 60                              | 18                     | 2568                  | 26            | 2.2                                         |
| .015                      | 941C30S15K-F           | .375 (9.5)      | .622 (15.8)      | 1.339 (34.0)     | .032 (0.8)       | 40                              | 19                     | 2568                  | 39            | 2.9                                         |
| .022                      | 941C30S22K-F           | .454 (11.5)     | .701 (17.8)      | 1.339 (34.0)     | .032 (0.8)       | 25                              | 20                     | 2568                  | 57            | 4.0                                         |
| .033                      | 941C30S33K-F           | .558 (14.2)     | .805 (20.4)      | 1.339 (34.0)     | .040 (1.0)       | 14                              | 21                     | 2568                  | 85            | 5.8                                         |
| .047                      | 941C30S47K-F           | .446 (11.3)     | .817 (20.7)      | 1.811 (46.0)     | .040 (1.0)       | 14                              | 20                     | 1440                  | 68            | 6.3                                         |
| .068                      | 941C30S68K-F           | .545 (13.8)     | .916 (23.3)      | 1.811 (46.0)     | .040 (1.0)       | 12                              | 26                     | 1440                  | 98            | 7.4                                         |
| .10                       | 941C30P1K-F            | .673 (17.1)     | 1.044 (26.5)     | 1.811 (46.0)     | .047 (1.2)       | 10                              | 28                     | 1440                  | 144           | 9.0                                         |
| .15                       | 941C30P15K-F           | .839 (21.3)     | 1.210 (30.7)     | 1.811 (46.0)     | .047 (1.2)       | 8                               | 30                     | 1440                  | 216           | 11.2                                        |

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