

F91 Series
Low ESR, Resin-Molded Chip J-Lead



FEATURES

- Compliant to the RoHS3 directive 2015/863/EU
- SMD J-Lead
- Low ESR
- 100% Surge Current Tested

APPLICATIONS

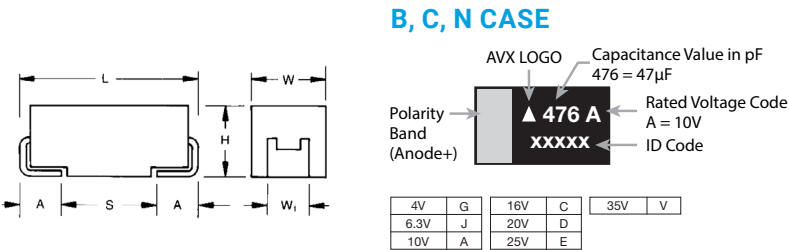
- General Medium Power DC/DC Convertors



CASE DIMENSIONS: millimeters (inches)

Table with 9 columns: Code, EIA Code, EIA Metric, L ± 0.20 (0.008), W ± 0.20 (0.008), H ± 0.20 (0.008), W1 ± 0.20 (0.008), A ± 0.30 (0.012), S Min. Rows include B, C, and N case types.

W1 dimension applies to the termination width for a dimensional area only



HOW TO ORDER

Ordering code breakdown: F91 (Type), 1A (Rated Voltage), 107 (Capacitance Code), M (Tolerance), C (Case Size), [] (Packaging).

TECHNICAL SPECIFICATIONS

Table with 2 columns: Specification Name, Value. Rows include Category Temperature Range, Rated Temperature, Capacitance Tolerance, Dissipation Factor, ESR 100kHz, Leakage Current, and Capacitance Change By Temperature.

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CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage | | | | | | |
|-------------|------|---------------|-----------|----------|----------|----------|----------|----------|
| μF | Code | 4V (0G) | 6.3V (0J) | 10V (1A) | 16V (1C) | 20V (1D) | 25V (1E) | 35V (1V) |
| 6.8 | 685 | | | | | | | C |
| 10 | 106 | | | | | | C | N |
| 15 | 156 | | | | | C | | N |
| 22 | 226 | | | | B | | N | N |
| 33 | 336 | | | | B/C | | N | |
| 47 | 476 | | | B | N | N | N | |
| 68 | 686 | | | C | | | | |
| 100 | 107 | | C | C | N | | | |
| 150 | 157 | C | C | N | | | | |
| 220 | 227 | C | C/N | N | | | | |
| 330 | 337 | N | N | N | | | | |
| 470 | 477 | N | N | | | | | |
| 680 | 687 | N | | | | | | |

Released ratings

RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (μF) | Rated Voltage (V) | DCL (μA) | DF @ 120Hz (%) | ESR @ 100kHz (mΩ) | 100kHz RMS Current (mA) | | | MSL |
|-----------------|--------------|---------------------|-------------------------|-------------|----------------------|-------------------------|-------------------------|------|-------|-----|
| | | | | | | | 25°C | 85°C | 125°C | |
| 4 Volt | | | | | | | | | | |
| F910G157#CC | C | 150 | 4 | 6.0 | 12 | 250 | 663 | 597 | 265 | 1 |
| F910G227#CC | C | 220 | 4 | 8.8 | 12 | 250 | 663 | 597 | 265 | 1 |
| F910G337#NC | N | 330 | 4 | 13.2 | 10 | 100 | 1225 | 1102 | 490 | 1 |
| F910G477#NC | N | 470 | 4 | 18.8 | 16 | 100 | 1225 | 1102 | 490 | 1 |
| F910G687#NC | N | 680 | 4 | 27.2 | 18 | 100 | 1225 | 1102 | 490 | 1 |
| 6.3 Volt | | | | | | | | | | |
| F910J107#CC | C | 100 | 6.3 | 6.3 | 8 | 250 | 663 | 597 | 265 | 1 |
| F910J157#CC | C | 150 | 6.3 | 9.5 | 12 | 250 | 663 | 597 | 265 | 1 |
| F910J227#CC | C | 220 | 6.3 | 13.9 | 14 | 250 | 663 | 597 | 265 | 1 |
| F910J227#NC | N | 220 | 6.3 | 13.9 | 10 | 100 | 1225 | 1102 | 490 | 1 |
| F910J337#NC | N | 330 | 6.3 | 20.8 | 14 | 100 | 1225 | 1102 | 490 | 1 |
| F910J477#NC | N | 470 | 6.3 | 29.6 | 16 | 100 | 1225 | 1102 | 490 | 1 |
| 10 Volt | | | | | | | | | | |
| F911A476#BA | B | 47 | 10 | 4.7 | 8 | 500 | 412 | 371 | 165 | 1 |
| F911A686#CC | C | 68 | 10 | 6.8 | 8 | 300 | 606 | 545 | 242 | 1 |
| F911A107#CC | C | 100 | 10 | 10.0 | 10 | 250 | 663 | 597 | 265 | 1 |
| F911A157#NC | N | 150 | 10 | 15.0 | 10 | 100 | 1225 | 1102 | 490 | 1 |
| F911A227#NC | N | 220 | 10 | 22.0 | 12 | 100 | 1225 | 1102 | 490 | 3 |
| F911A337#NC | N | 330 | 10 | 33.0 | 18 | 100 | 1225 | 1102 | 490 | 3 |
| 16 Volt | | | | | | | | | | |
| F911C226#BA | B | 22 | 16 | 3.5 | 8 | 950 | 299 | 269 | 120 | 1 |
| F911C336#BA | B | 33 | 16 | 5.3 | 8 | 950 | 299 | 269 | 120 | 1 |
| F911C336#CC | C | 33 | 16 | 5.3 | 6 | 400 | 524 | 472 | 210 | 1 |
| F911C476#NC | N | 47 | 16 | 7.6 | 6 | 150 | 1000 | 900 | 400 | 1 |
| F911C107#NC | N | 100 | 16 | 16 | 10 | 100 | 1225 | 1102 | 490 | 3 |
| 20 Volt | | | | | | | | | | |
| F911D156#CC | C | 15 | 20 | 3 | 6 | 450 | 494 | 445 | 198 | 1 |
| F911D476#NC | N | 47 | 20 | 9.4 | 8 | 200 | 866 | 779 | 346 | 1 |
| 25 Volt | | | | | | | | | | |
| F911E106#CC | C | 10 | 25 | 2.5 | 6 | 450 | 494 | 445 | 198 | 1 |
| F911E226#NC | N | 22 | 25 | 5.5 | 6 | 200 | 866 | 779 | 346 | 1 |
| F911E336#NC | N | 33 | 25 | 8.3 | 8 | 200 | 866 | 779 | 346 | 1 |
| F911E476#NC | N | 47 | 25 | 11.8 | 8 | 250 | 775 | 697 | 310 | 1 |
| 35 Volt | | | | | | | | | | |
| F911V685#CC | C | 6.8 | 35 | 2.4 | 6 | 600 | 428 | 385 | 171 | 1 |
| F911V106#NC | N | 10 | 35 | 3.5 | 6 | 300 | 707 | 636 | 283 | 1 |
| F911V156#NC | N | 15 | 35 | 5.3 | 6 | 300 | 707 | 636 | 283 | 1 |
| F911V226#NC | N | 22 | 35 | 7.7 | 8 | 300 | 707 | 636 | 283 | 1 |

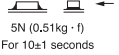
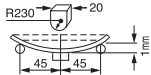
#: "M" for ±20% tolerance, "K" for ± 10% tolerance.

Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

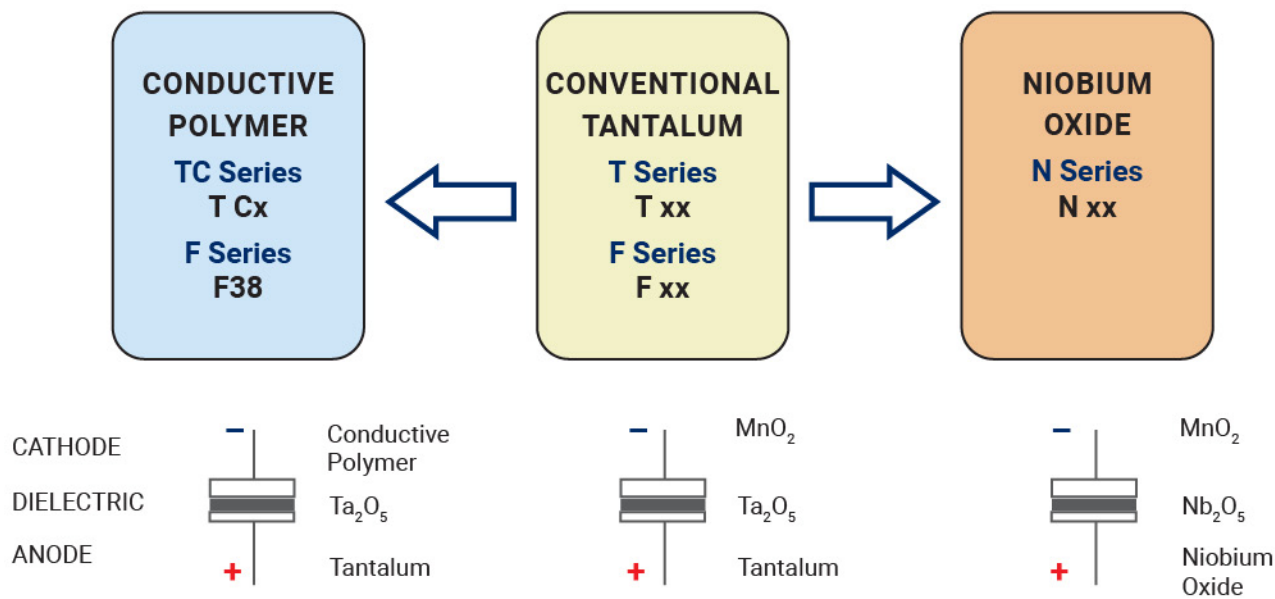
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QUALIFICATION TABLE

| TEST | F91 series (Temperature range -55°C to +125°C) | |
|-------------------------------------|--|---|
| | Condition | |
| Damp Heat (Steady State) | At 40°C, 90 to 95% R.H., 500 hours (No voltage applied) Capacitance Change Within $\pm 10\%$ of the initial value Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less | |
| Temperature Cycles | -55°C / +125°C, 30 minutes each, 5 cycles Capacitance Change Within $\pm 5\%$ of the initial value Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less | |
| Resistance to Soldering Heat | 10 seconds reflow at 260°C, 5 seconds immersion at 260°C. Capacitance Change Within $\pm 5\%$ of the initial value Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less | |
| Surge | After application of surge voltage in series with a 33 Ω resistor at the rate of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85°C, capacitors shall meet the characteristic requirements in the table above. Capacitance Change Within $\pm 5\%$ of the initial value Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less | |
| Endurance | After 2000 hours' application of rated voltage in series with a 3 Ω resistor at 85°C, or derated voltage in series with a 3 Ω resistor at 125°C, capacitors shall meet the characteristic requirements in the table above. Capacitance Change Within $\pm 10\%$ of the initial value Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less | |
| Shear Test | After applying the pressure load of 5N for 10 ± 1 seconds horizontally to the center of capacitor side body which has no electrode and has been soldered beforehand on a substrate, there shall be found neither exfoliation nor its sign at the terminal electrode. |  |
| Terminal Strength | Keeping a capacitor surface-mounted on a substrate upside down and supporting the substrate at both of the opposite bottom points 45mm apart from the center of capacitor, the pressure strength is applied with a specified jig at the center of substrate so that the substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals. |  |

AVX SOLID ELECTROLYTIC CAPACITOR ROADMAP



Mouser Electronics

Authorized Distributor

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[F911A107MNC](#) [F910E227MCC](#) [F910J157MNC](#)