

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

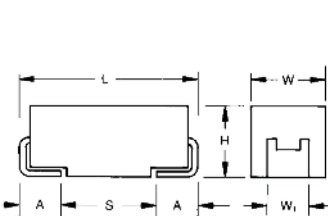
- General Medium Power DC/DC Convertors



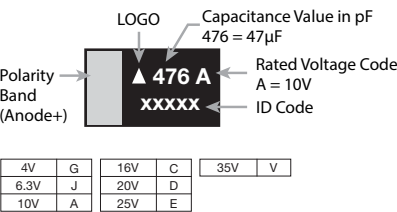
CASE DIMENSIONS: millimeters (inches)

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.

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



B, C, N CASE



*Capacitance code of "P" case products are as shown below.

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 (Category Temperature Range, Rated Temperature, Capacitance Tolerance, Dissipation Factor, ESR 100kHz, Leakage Current, Capacitance Change By Temperature) and Value/Description.

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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

Part Number	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

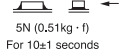
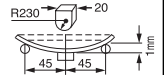
#: "M" for ±20% tolerance, "K" for ± 10% tolerance.

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

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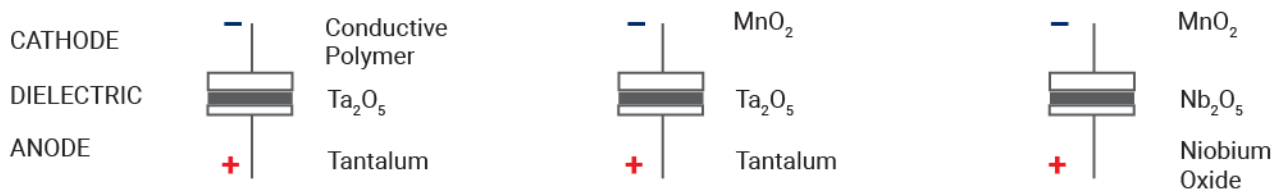
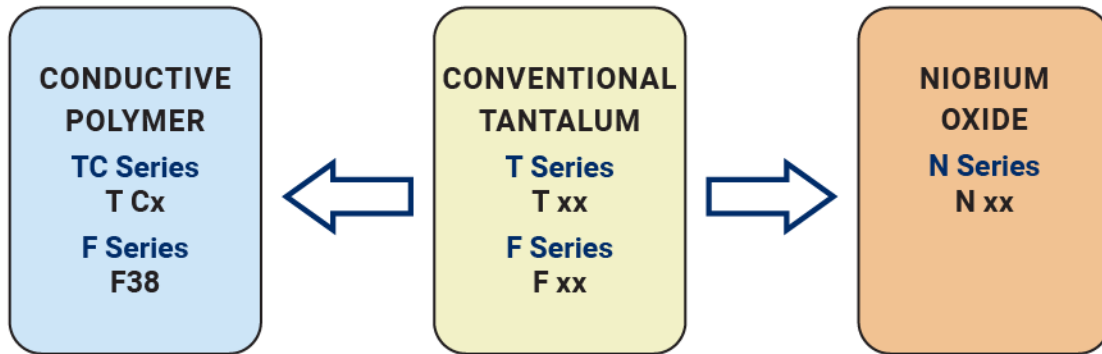
QUALIFICATION TABLE

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.	

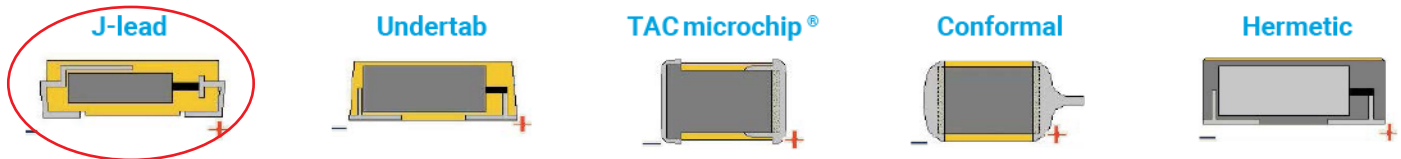
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SOLID ELECTROLYTIC CAPACITOR ROADMAP



FIVE CAPACITOR CONSTRUCTION STYLES



SERIES LINE UP : CONVENTIONAL SMD MnO_2

