

F98-AJ6 Series

Resin-Molded Chip, High CV Facedown - Automotive Range



FEATURES

- Compliant to the RoHS3 directive 2015/863/EU
- SMD Face Down Design
- Small and Low Profile
- Compliant to AEC-Q200
- 100% Surge Current Tested



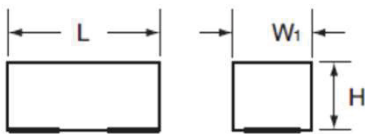
APPLICATIONS

- Infotainment
- Cabin Electronics
- Cameras
- Digital Millers

CASE DIMENSIONS:

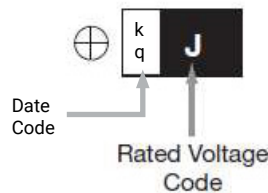
millimeters (inches)

Code	EIA Code	EIA Metric	L	W ₁	W ₂	H	S ₁	S ₂
M	0603	1608-09	1.60 ^{+0.20} _{-0.10} (0.063 ^{+0.008} _{-0.004})	0.85 ^{+0.20} _{-0.10} (0.033 ^{+0.008} _{-0.004})	0.65±0.10 (0.026±0.004)	1.0 Max (0.039 Max)	0.50±0.10 (0.020±0.004)	0.60±0.10 (0.024±0.004)
S	0805	2012-09	2.00 ^{+0.20} _{-0.10} (0.079 ^{+0.008} _{-0.004})	1.25 ^{+0.20} _{-0.10} (0.049 ^{+0.008} _{-0.004})	0.90±0.10 (0.035±0.004)	0.80±0.10 (0.031±0.004)	0.50±0.10 (0.020±0.004)	1.00±0.10 (0.039±0.004)

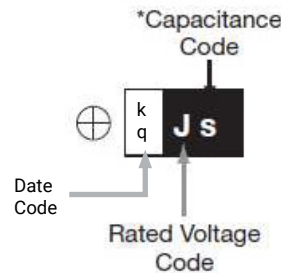


MARKING

M CASE



S CASE



HOW TO ORDER

F98 Type	1C Rated Voltage	106 Capacitance Code pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	M Tolerance M = ± 20%	S Case Size See table above	 Packaging	AJ6 AEC-Q200 Compliant
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Code	Reel Dia (mm)	Tape Width (mm)	Qty (pcs)
A	φ180	8	4000
U	φ180	8	1000

TECHNICAL SPECIFICATIONS

Category Temperature Range:	-55 to +125°C
Rated Temperature:	+85°C
Capacitance Tolerance:	±20% at 120Hz
Dissipation Factor:	Refer to Ratings & Part Number Reference
ESR 100kHz:	Refer to Ratings & Part Number Reference
Leakage Current:	Refer to Ratings & Part Number Reference at 20°C after application of rated voltage for 5 minutes Provided that: After 5 minute's application of rated voltage, leakage current at 85°C 10 times or less than 20°C specified value. After 5 minute's application of rated voltage, leakage current at 125°C 12.5 times or less than 20°C specified value.
Termination Finish:	Gold Plating (standard)

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CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage			Cap Code
μF	Code	6.3 (0J)	10V (1A)	16V (1C)	
4.7	475		M	M	S
10	106		M	S	a
22	226	M*	S*		J
33	336	M*			n
47	476	S*			s

Released Ratings

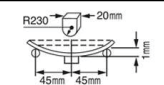
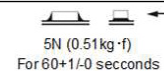
* Codes under development - subject to change

RATINGS & PART NUMBER REFERENCE

Part Number	Case Size	Cap (μF)	Rated Voltage (V)	DCL Max (μA)	DF Max (%@120Hz)	ESR Max (Ω@100kHz)	100kHz RMS Current (mA)			ΔC/C	MSL
							25°C	85°C	125°C		
10 Volt											
F981A475MMAAJ6	M	4.7	10	0.5	12	6	65	58	26	±30	3
F981A106MMAAJ6	M	10	10	1.0	20	7.5	58	52	23	±30	3
16 Volt											
F981C475MMAAJ6	M	4.7	16	0.8	12	12	46	41	18	±30	3
F981C106MSAAJ6	S	10	16	1.6	18	4	106	95	42	±30	3

QUALIFICATION TABLE

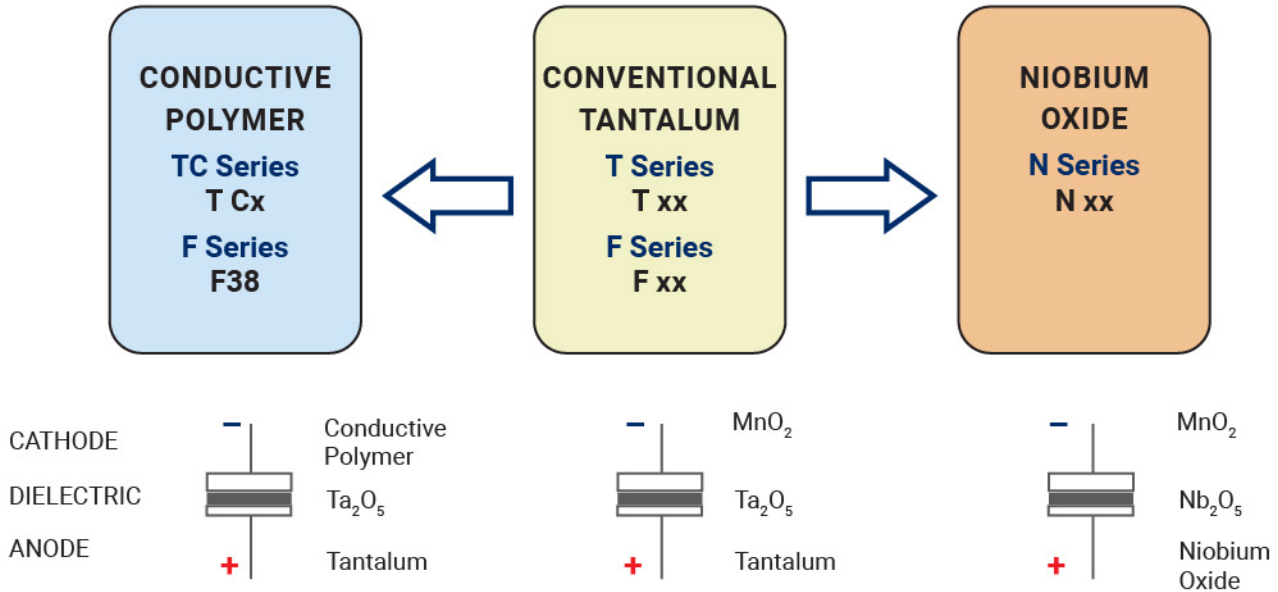
Test	F98-AJ6 series (Temperature range -55°C to +125°C)	
	Condition	
Damp Heat (Steady State)	At 40°C, 90% R.H., 500 hours (No voltage applied) Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value	
Load Humidity	After 1000 hour's application of rated voltage in series with a 33Ω resistor at 85°C, 85% R.H., capacitors meet the characteristics requirements table below. Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....10 times or less of initial specified value	
Temperature Cycles	At -55°C / +125°C, 30 minutes each, 1000 cycles Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less initial specified value Leakage Current.....5 times or less of initial specified value	
Resistance to Soldering Heat	10 seconds reflow at 260°C, 5 seconds immersion at 260°C Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....Initial specified value or less Leakage Current.....Initial specified value or less	
Surge	After application of surge voltage in series with a 1kΩ 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.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value	
Endurance	After 1000 hours' application of rated voltage in series with a 3Ω resistor at 85°C, or derated voltage in series with a 3Ω resistor at 125°C, capacitors shall meet the characteristic requirements in the table above. Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value	
Shear Test	After applying the pressure load of 5N for 60+1/-0 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	



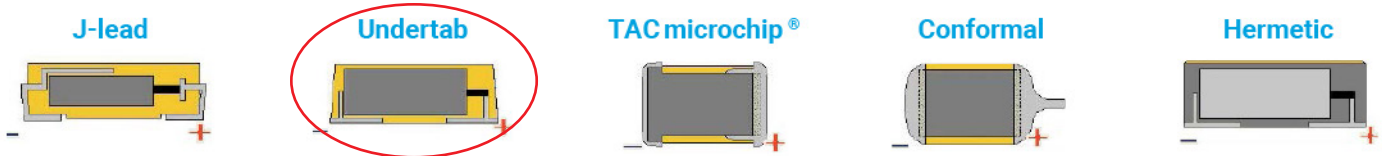
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SOLID ELECTROLYTIC CAPACITOR ROADMAP



FIVE CAPACITOR CONSTRUCTION STYLES



SERIES LINE UP : CONVENTIONAL SMD MnO₂

