F98 Series

Resin-Molded Chip, High CV Undertab

CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage								*Cap Code
µF	Code	2.5 (0e)	4V (0G)	6.3V (0J)	10V (1A)	16V (1C)	20V (1D)	25V (1E)	35V (1V)	
0.33	334						U**			N
1.0	105					M	M	M	S	A
2.2	225				M/U	M				J
4.7	475		U	M/U	M/U**	M				S
10	106		U	M/U**	M	S				a
15	156		U							e
22	226		M/U**	M	M**/S					J
33	336		M	M	M**/S					n
47	476	M	M	M*4/S	S					s
68	686		M/S							w
100	107		M/S	M*4/S						A
220	227		S							J

Available Ratings

*Codes under development - subject to change

*4 Rated temperature 60°C and H dimension 1.0mm Max only. Please contact AVX when you need detail spec.

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We can consider the type of compliance to AEC-Q200.

Please contact to your local AVX sales office when these series are being designed in your application.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	*2 DCL (µA)	DF @ 120Hz (%)	ESR @ 100kHz (Ω)	*1 ΔC/C (%)
2.5 Volt							
F980E476MMA	M	47	2.5	1.2	30	4	±30
4 Volt							
F980G475MUA	U	4.7	4	0.5	20	20	±30
F980G106MUA	U	10	4	0.8	25	20	±30
F980G156MUA	U	15	4	9.0	40	25	±30
F980G226MMA	M	22	4	0.9	15	7.5	±30
F980G226MUALZT	U	22	4	25.0	40	20	±30
F980G336MMA	M	33	4	1.3	30	4	±30
F980G476MMA	M	47	4	1.9	40	8	±30
F980G686MMA	M	68	4	27.2	50	10	±30
F980G686MSA	S	68	4	2.7	30	4	±30
F980G107MMA	M	100	4	80.0	60	10	±30
F980G107MSA	S	100	4	4.0	35	4	±30
F980G227MSA	S	220	4	132	80	5	±30
6.3 Volt							
F980J475MMA	M	4.7	6.3	0.5	20	7.5	±30
F980J475MUA	U	4.7	6.3	0.6	20	20	±30
F980J106MMA	M	10	6.3	0.6	8	6	±30
F980J106MUALZT	U	10	6.3	6.3	30	30	±30
F980J226MMA	M	22	6.3	1.4	20	6	±30
F980J336MMA	M	33	6.3	4.2	35	8	±30
F980J476MMA	M	47	6.3	29.6	45	10	±30
F980J476MSA	S	47	6.3	3.0	25	6	±30
F980J107MMAAXE	M	100	6.3	126	80	10	±30
F980J107MSA	S	100	6.3	63.0	50	8	±30

*2: Leakage Current
After 5 minute's application of rated voltage, leakage current at 20ºC.

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	*2 DCL (µA)	DF @ 120Hz (%)	ESR @ 100kHz (Ω)	*1 ΔC/C (%)
10 Volt							
F981A225MMA	M	2.2	10	0.5	6	7.5	±30
F981A225MUA	U	2.2	10	0.5	15	15	±30
F981A475MMA	M	4.7	10	0.5	6	6	±30
F981A475MUALZT	U	4.7	10	4.7	25	25	±30
F981A106MMA	M	10	10	1.0	20	7.5	±30
F981A226MMALZT	M	22	10	11.0	30	8	±30
F981A226MSA	S	22	10	2.2	20	4	±30
F981A336MMALZT	M	33	10	33.0	45	8	±30
F981A336MSA	S	33	10	3.3	30	6	±30
F981A476MSA	S	47	10	9.4	35	5	±30
16 Volt							
F981C105MMA	M	1	16	0.5	6	10	±30
F981C225MMA	M	2.2	16	0.5	6	10	±30
F981C475MMA	M	4.7	16	0.8	12	12	±30
F981C106MSA	S	10	16	1.6	18	4	±30
20 Volt							
F981D105MMA	M	1	20	0.5	6	10	±30
25 Volt							
F981E105MMA	M	1	25	0.5	8	10	±30
35 Volt							
F981V105MSA	S	1	35	0.7	20	8	±30

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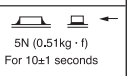
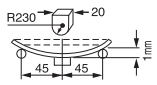
QUALIFICATION TABLE

TEST	F98 series (Temperature range -55ºC to +125ºC) Condition
Damp Heat (Steady State)	At 40°C, 90 to 95% R.H., 500 hours (No voltage applied) Capacitance Change ..... Refer to page 68 (*1) Dissipation Factor ..... 150% or less of initial specified value Leakage Current ..... 200% or less of initial specified value
Temperature Cycles	-55°C / +125°C, 30 minutes each, 5 cycles Capacitance Change ..... Refer to page 68 (*1) Dissipation Factor ..... 150% or less of initial specified value Leakage Current ..... 200% 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 page 68 (*1) Dissipation Factor ..... Initial specified value or less Leakage Current ..... Initial specified value or less
Surge	After application of surge in series with a 1kΩ resistor at the rate of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85ºC, capacitors shall meet the characteristic requirements in the table above. Capacitance Change ..... Refer to page 68 (*1) 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, capacitors shall meet the characteristic requirements in the table above. Capacitance Change ..... Refer to page 68 (*1) 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 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.  5N (0.51kg · f) For 10±1 seconds
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. 

Mouser Electronics

Authorized Distributor

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Kyocera AVX:

F981C105MMA F980J336MMA F980G106MUA F981C475MMA F980G336MMA F980J226MMA F980G107MSA F980G476MMA F981D105MMA F980G226MMA F981A336MMALZT F981A226MMALZT F980J106MUALZT F981A475MUALZT F980G227MSA F980J107MSA