



### FEATURES

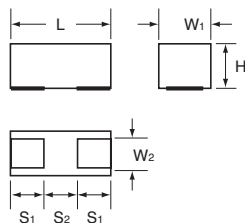
- Compliant to the RoHS2 directive 2011/65/EU
- SMD face down design
- Small and low profile

### APPLICATIONS

- Smartphone
- Mobile phone
- Wireless module
- Hearing aid

### CASE DIMENSIONS: millimeters (inches)

Code	L	W <sub>1</sub>	W <sub>2</sub>	H	S <sub>1</sub>	S <sub>2</sub>
M	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)	0.80±0.10 (0.031±0.004)	0.50±0.10 (0.020±0.004)	0.60±0.10 (0.024±0.004)
S	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)
U	1.10±0.05 (0.043±0.002)	0.60±0.05 (0.024±0.002)	0.35±0.05 (0.014±0.002)	0.55±0.05 (0.022±0.002)	0.30±0.05 (0.012±0.002)	0.50±0.05 (0.020±0.002)



### TECHNICAL SPECIFICATIONS

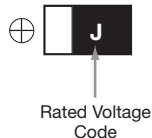
Item	Performance Characteristics
Category Temperature Range	-55 to +125°C (Rated temperature: +85°C)
Capacitance Tolerance	±20% (at 120Hz)
Dissipation Factor	Refer to next page
ESR (100kHz)	Refer to next page
Leakage Current	Refer to next page Provided that <ul style="list-style-type: none"> <li>• After 5 minute's application of rated voltage, leakage current at 85°C, 10 times or less than 20°C specified value.</li> <li>• After 5 minute's application of rated voltage, leakage current at 125°C, 12.5 times or less than 20°C specified value.</li> </ul>
Damp Heat (Steady State)	At 40°C, 90 to 95% R.H., For 500 hours (No voltage applied) Capacitance Change ..... Refer to next page (*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, For 30 minutes each, 5 cycles Capacitance Change ..... Refer to next page (*1) Dissipation Factor ..... 150% or less than the initial specified value 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 ..... Refer to next page (*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 85°C, capacitors shall meet the characteristic requirements listed below. Capacitance Change ..... Refer to next page (*1) Dissipation Factor ..... 150% or less than the initial specified value Leakage Current ..... 200% or less than the 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 table below. Capacitance Change ..... Refer to next page (*1) Dissipation Factor ..... 150% or less than the initial specified value Leakage Current ..... 200% or less than the 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. 
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 the substrate so that substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals. 

### MARKING

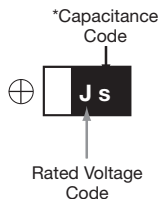
#### U CASE



#### M CASE



#### S CASE



### HOW TO ORDER

**F98**

Type

**0J**

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%

**M**

Case Size  
See table above

**□**

Packaging  
See page 168 for details

**LZT**

Specification Suffix  
Rated temperature 60°C only

### CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

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

Available Ratings

\*Codes under development – subject to change

\*\*Rated temperature 60°C only. Please contact AVX when you need detail spec.

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 Number	Case Size	Cap (μF)	Rated Voltage (V)	*2 Leakage Current (μA)	Dissipation Factor (%@120Hz)	ESR (Ω@100kHz)	*1 ΔC/C (%)
<b>4 Volt</b>							
F980G475MUA	U	4.7	4	0.5	20	20	±30
F980G106MUA	U	10	4	0.8	25	20	±30
F980G226MMA	M	22	4	0.9	15	7.5	±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
<b>6.3 Volt</b>							
F980J475MUA	U	4.7	6.3	0.6	20	20	±30
F980J475MMA	M	4.7	6.3	0.5	20	7.5	±30
F980J106MMA	M	10	6.3	0.6	8	6	±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
F980J107MSA	S	100	6.3	63.0	50	8	±30
<b>10 Volt</b>							
F981A225MUA	U	2.2	10	0.5	15	15	±30
F981A225MMA	M	2.2	10	0.5	6	7.5	±30
F981A475MMA	M	4.7	10	0.5	6	6	±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
<b>16 Volt</b>							
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
<b>20 Volt</b>							
F981D105MMA	M	1	20	0.5	6	10	±30
<b>25 Volt</b>							
F981E105MMA	M	1	25	0.5	8	10	±30

\*1: ΔC/C Marked “\*”

\*2: Leakage Current

After 5 minute's application of rated voltage, leakage current at 20°C.