# F98-AS1 Series

# Fused Face-Down, High CV





#### **FEATURES**

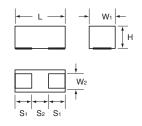
• Compliant to the RoHS2 directive 2011/65/EU





### **APPLICATIONS**

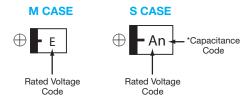
- Industrial equipment
- Smartphone
- Medical equipment
- Automotive electronics
- Portable game



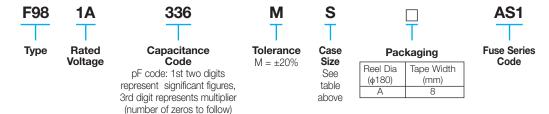
### **CASE DIMENSIONS:** millimeters (inches)

Cod	e L	W <sub>1</sub>	W <sub>2</sub>	Н	<b>S</b> <sub>1</sub>	S <sub>2</sub>
М	1.60 <sup>+0.20</sup> <sub>-0.10</sub> (0.063 <sup>+0.008</sup> <sub>-0.004</sub> )	0.85 +0.20 (0.033 +0.008 (0.033 +0.008)	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 (0.049 +0.008 (0.049 -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**



#### **HOW TO ORDER**



#### **TECHNICAL SPECIFICATIONS**

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:
	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.

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

Capacitance			*Cap				
μF	Code	10V (1A)	16V (1C)	20V (1D)	25V (1E)	35 (1V)	Code
1	105		M*	M*	M*	S	А
2.2	225	M*	M*				_
4.7	475	M*	M*				-
10	106	M*	S				a
22	226	M*/S					J
33	336	M*/S					n
47	476	S*					-

Available Ratings

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 (μΑ)	DF (%) @ 120Hz	ESR (Ω) @ 100kHz	*1 ∆C/C (%)
10 Volt							
F981A226MSAAS1	S	22	10	2.2	20	4.5	±20
F981A336MSAAS1	S	33	10	3.3	30	6.5	±30
16 Volt							
F981C106MSAAS1	S	10	16	1.6	18	4.5	±20
35 Volt							
F981V105MSAAS1	S	1	35	0.7	20	8.5	±30

<sup>\*2:</sup> Leakage Current After 5 minute's application of rated voltage, leakage current at 20°C.

#### **QUALIFICATION TABLE**

Dissipation Factor   150% or less of initial specified value   155°C / +125°C, 30 minutes each, 5 cycles   150% or less of initial specified value   155°C / +125°C, 30 minutes each, 5 cycles   150% or less of initial specified value   10 seconds reflow at 260°C, 150% or less of initial specified value   10 seconds reflow at 260°C, 5 seconds immersion at 260°C.   150% or less of initial specified value   10 seconds reflow at 260°C, 5 seconds immersion at 260°C.   150% or less of initial specified value   10 seconds reflow at 260°C.   150% or less of initial specified value   10 seconds reflow at 260°C.   150% or less of initial specified value   10 seconds reflow at 260°C.   150% or less of initial specified value   150% or less of less   150% or less   150								
Dissipation Factor   150% or less of initial specified value								
Leakage Current	Damp Heat	Capacitance Change Refer to the table above (*1)						
Temperature Cycles  -55°C / +125°C, 30 minutes each, 5 cycles Capacitance Change	(Steady State)	Dissipation Factor						
Capacitance Change		Leakage Current						
Dissipation Factor								
Dissipation Factor   150% or less of initial specified value	Temperature Cycles	Capacitance Change Refer to the table above (*1)						
10 seconds reflow at 260°C, 5 seconds immersion at 260°C. Capacitance Change	remperature Oycles	Dissipation Factor						
Capacitance Change   Refer to the table above (*1)		Leakage Current						
Dissipation Factor		10 seconds reflow at 260°C, 5 seconds immersion at 260°C.						
Leakage Current	Resistance to	Capacitance Change Refer to the table above (*1)						
Leakage Current	Soldering Heat	Dissipation Factor Initial specified value or less						
for 1000 successive test cycles at 85°C, capacitors shall meet the characteristic requirements in the table above.  Capacitance Change								
Capacitance Change		After application of surge in series with a $1k\Omega$ resistor at the rate of 30 seconds ON, 30 seconds OFF,						
Dissipation Factor								
Leakage Current	Surge	Capacitance Change Refer the table above (*1)						
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		Dissipation Factor						
capacitors shall meet the characteristic requirements in the table above.  Capacitance Change		Leakage Current						
Capacitance Change		After 1000 hours' application of rated voltage in series with a $3\Omega$ resistor at 85°C,						
Dissipation Factor		capacitors shall meet the characteristic requirements in the table above.						
Leakage Current	Endurance							
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.  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								
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.  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		Leakage Current						
exfoliation nor its sign at the terminal electrode.  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								
extollation nor its sign at the terminal electrode.  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	Shear Test	which has no electrode and has been soldered beforehand on a substrate, there shall be found neither						
Terminal Strength both of the opposite bottom points 45mm apart from the center of capacitor, the pressure strength is		extoliation nor its sign at the terminal electrode.						
Terminal Strength both of the opposite bottom points 45mm apart from the center of capacitor, the pressure strength is								
	Terminal Strength	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	Torrimian Galorigan	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.		illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals.						
Fuse activation 5 seconds max. with 2A min. applied current	Fuse activation	5 seconds max. with 2A min. applied current						

NOTICE: DESIGN, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



<sup>\*</sup>Codes under development - subject to change