# F98-AS1 Series

# Fused Face-Down, High CV





# **FEATURES**

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

# LEAD-FREE COMPATIBLE COMPONENT

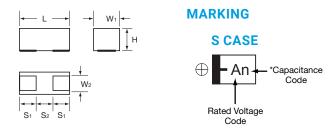


### **APPLICATIONS**

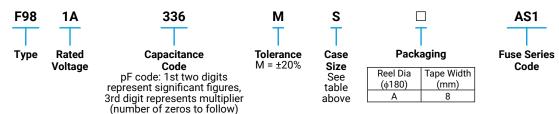
- Smartphone
- Mobile Phone
- Wireless Module
- Hearing Aid

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

Code	EIA Code	EIA Metric	L	<b>W</b> <sub>1</sub>	W <sub>2</sub>	Н	S <sub>1</sub>	S <sub>2</sub>	
s	0805	2012-09	2.00 <sup>+0.20</sup> <sub>-0.10</sub> (0.079 <sup>+0.008</sup> )	1.25 <sup>+0.20</sup> <sub>-0.10</sub> (0.049 <sup>+0.008</sup> <sub>-0.004</sub> )	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)	



### **HOW TO ORDER**



#### **TECHNICAL SPECIFICATIONS**

Category Temperature Range:	-55 to +125°C						
Rated Temperature:	+85°C						
Capacitance Tolerance:	±20% at 120Hz Refer to next page						
Dissipation Factor:							
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.						
Termination Finish:	Gold Plating (standard)						

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

Capac	itance		*00					
μF	Code	10V (1A)	16V (1C)	20V (1D)	20V (1D) 25V (1E)		*Cap Code	
1.0	105					S	Α	
2.2	225						7	
4.7	475						S	
10	106		S				а	
22	226	S					٦	
33	336	S					n	
47	476	S					S	

Released ratings

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

# **RATINGS & PART NUMBER REFERENCE**

	Case Ca Size	Capacitance (µF)	Rated Voltage (V)	DCL (μA)	DF @ 120Hz (%)	ESR @ 100kHz (Ω)	100kHz RMS Current (mA)			*1	
Part Number							25°C	85°C	125°C	ΔC/C MS	MSL
	10 Volt										
F981A226MSAAS1	S	22	10	2.2	20	4.5	100	90	40	±20	3
F981A336MSAAS1	S	33	10	3.3	30	6.5	83	75	33	±30	3
F981A476MSAAS1	S	47	10	9.4	35	5.5	90	81	36	±30	3
	16 Volt										
F981C106MSAAS1	S	10	16	1.6	18	4.5	100	90	40	±20	3
35 Volt											
F981V105MSAAS1	S	1	35	0.7	20	8.5	73	65	29	±30	3

<sup>\*2:</sup> Leakage Current

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

# **QUALIFICATION TABLE**

TEST	F98-AS1 series (Temperature range -55°C to +125°C)
TEST	Condition
Damp Heat (Steady State)	At 40°C, 90 to 95% R.H., 500 hours (No voltage applied) Capacitance Change
Temperature Cycles	-55°C / +125°C, 30 minutes each, 5 cycles Capacitance Change
Resistance to Soldering Heat	10 seconds reflow at 260°C, 5 seconds immersion at 260°C. Capacitance Change
Surge	After application of surge in series with a 1k $\Omega$ 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
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 ChangeRefer to the table above (*1)  Dissipation Factor150% or less of initial specified value  Leakage Current200% 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 bodywhich 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.
Fuse Activation	5 seconds max. with 2A min. applied current

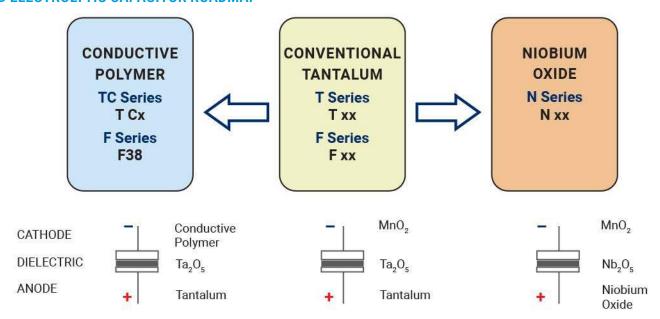
After 5 minute's application of rated voltage, leakage current at 20°C.

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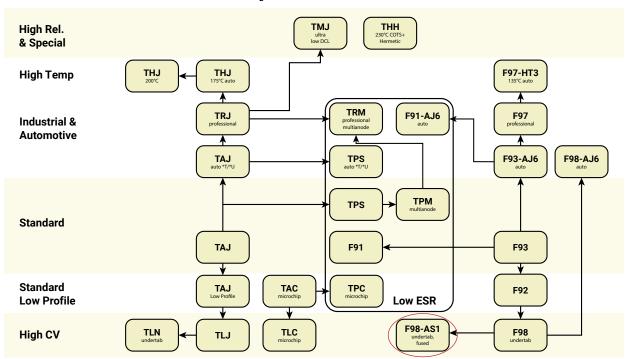
# SOLID ELECTROLYTIC CAPACITOR ROADMAP



# **FIVE CAPACITOR CONSTRUCTION STYLES**



# SERIES LINE UP: CONVENTIONAL SMD MnO,



030321