

AUDIO F95 Series



Conformal Coated Chip Optimized for Audio Applications



FEATURES

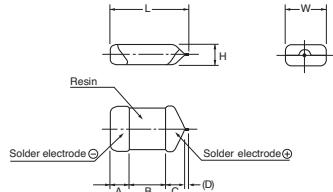
- Compliant to the RoHS2 directive 2011/65/EU
- Rich sound in the bass register and clear sound, Materials are strictly selected to achieve high level sound. F95 series has no lead-frame, and no vibration factor
- Low ESR, Low ESL
- Line up miniature size and high capacitance, necessary to mobile design
- SMD conformal
- Small and high CV



LEAD-FREE
COMPATIBLE
COMPONENT



RoHS
COMPLIANT



Single-side electrodes
(Both electrodes at bottom side only)

APPLICATIONS

- Mobile Audio Player
- Smartphone
- Mobile phone
- Wireless Microphone System

MARKING

A, S CASE



Capacitance
Code

B, T CASE



Capacitance
Code

μF	68	100	150	220	330	470	680
code	W7	A8	E8	J8	N8	S8	W8

P case - No marking on part.

HOW TO ORDER

F95 **0G**

Type Rated Voltage

227

Capacitance
Code

pF code: 1st two digits
represent significant figures,
3rd digit represents multiplier
(number of zeros to follow)

M **T**
Tolerance
K = $\pm 10\%$
M = $\pm 20\%$

S **T**
Case
Size
See
table
above

Packaging
See Tape & Reel
Packaging Section

AM1 **T**
AUDIO
Series
Code

Q2
Single
Face
Electrode

TECHNICAL SPECIFICATIONS

Category Temperature Range:	-55 to +125°C
Rated Temperature:	+85°C
Capacitance Tolerance:	$\pm 20\%$, $\pm 10\%$ at 120Hz
Dissipation Factor:	Refer to next page
ESR 100kHz:	Refer to next page
Leakage Current:	Refer to next page Provided that: After 1 minute's application of rated voltage, leakage current at 85°C 10 times or less than 20°C specified value.
	After 1 minute's application of rated voltage, leakage current at 125°C 12.5 times or less than 20°C specified value.
Capacitance Change By Temperature	+15% Max. at +125°C +10% Max. at +85°C -10% Max. at -55°C



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CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage		
µF	Code	4V (0G)	6.3V (0J)	10V (1A)
68	686	S	S	B
100	107	S	S/T	B
150	157	S	A*	
220	227	P*/S/T	A*/B/T*	
330	337	T	B	
470	477	B/T*	B*	
680	687	B*/T*		

Available Ratings

*Codes under development – subject to change

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 (Ω) @ 100kHz	*1 ΔC/C (%)
4 Volt							
F950G686MSAAM1Q2	S	68	4	2.7	10	0.8	*
F950G107MSAAM1Q2	S	100	4	4.0	14	0.8	*
F950G157MSAAM1Q2	S	150	4	6.0	22	0.8	±15
F950G227MSAAM1Q2	S	220	4	8.8	30	0.8	±15
F950G227MTAAM1Q2	T	220	4	8.8	25	0.6	*
F950G337MTAAM1Q2	T	330	4	13.2	40	0.8	±20
F950G477MBAAM1Q2	B	470	4	18.8	40	0.4	±20
6.3 Volt							
F950J686MSAAM1Q2	S	68	6.3	4.3	14	0.9	*
F950J107MSAAM1Q2	S	100	6.3	6.3	20	0.9	±15
F950J107MTAAM1Q2	T	100	6.3	6.3	14	0.6	*
F950J227MBAAM1Q2	B	220	6.3	13.9	30	0.4	*
F950J337MBAAM1Q2	B	330	6.3	20.8	35	0.6	±20
10 Volt							
F951A686MBAAM1Q2	B	68	10	6.8	12	0.4	*
F951A107MBAAM1Q2	B	100	10	10.0	14	0.4	*

* In case of capacitance tolerance ± 10% type, “K” will be put at 9th digit of type numbering system

1: ΔC/C Marked “”

Item	A, B, S, T Case (%)
Damp Heat	±10
Temperature cycles	±5
Resistance soldering heat	±5
Surge	±5
Endurance	±10

*2: Leakage Current

After 1 minute's application of rated voltage,
leakage current at 20°C.

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QUALIFICATION TABLE

TEST	AUDIO F95 series (Temperature range -55°C to +125°C) Condition
Damp Heat (Steady State)	At 40°C, 90 to 95% R.H., 500 hours (No voltage applied) Capacitance Change Refer to page 170 (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
Temperature Cycles	At -55°C / +125°C, 30 minutes each, 5 cycles Capacitance Change Refer to page 170 (*1) Dissipation Factor Initial specified value or less 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 page 170 (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
Surge	After application of surge voltage in series with a 33Ω 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 page 170 (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
Endurance	After 2000 hours' application of rated voltage 85°C, capacitors shall meet the characteristic requirements in the table above. Capacitance Change Refer to page 170 (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
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 substrate so that the substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals.

