

# AUDIO F95 Series

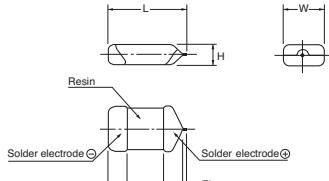


## Conformal Coated Chip Optimized for Audio Applications



### 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



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

### MARKING

#### A, S CASE



Capacitance Code



Capacitance Code

#### B, T CASE



### CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L	W	H	A	B	C	D*
A	1207	3217-16	3.20±0.30 (0.126±0.012)	1.70±0.30 (0.067±0.008)	1.40±0.20 (0.055±0.008)	0.80±0.30 (0.031±0.012)	1.20±0.30 (0.047±0.012)	0.80±0.30 (0.031±0.012)	0.20 (0.008)
B	1411	3528-20	3.50±0.20 (0.138±0.012)	2.80±0.20 (0.110±0.012)	1.80±0.20 (0.031±0.008)	0.80±0.30 (0.031±0.012)	1.20±0.30 (0.047±0.012)	1.10±0.30 (0.043±0.012)	0.20 (0.008)
P	0905	2212-12	2.20±0.30 (0.087±0.012)	1.25±0.30 (0.049±0.012)	1.00±0.20 (0.039±0.008)	0.60±0.30 (0.024±0.012)	0.80±0.30 (0.031±0.012)	0.80±0.30 (0.031±0.012)	0.20 (0.008)
S	1306	3216-12	3.20±0.30 (0.126±0.012)	1.60±0.30 (0.063±0.008)	1.00±0.20 (0.039±0.008)	0.80±0.30 (0.031±0.012)	1.20±0.30 (0.047±0.012)	0.80±0.30 (0.031±0.012)	0.20 (0.008)
T	1411	3527-12	3.50±0.20 (0.138±0.012)	2.70±0.20 (0.106±0.012)	1.00±0.20 (0.039±0.008)	0.80±0.20 (0.031±0.008)	1.20±0.20 (0.047±0.008)	1.10±0.30 (0.043±0.012)	0.20 (0.008)

\*D dimension only for reference

$\mu\text{F}$	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**  
Type

**0G**

Rated Voltage

**227**

Capacitance Code

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

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

**S**  
Case Size  
See table above

**AM1**  
Packaging  
See Tape & Reel  
Packaging Section

**AM1**  
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 @ 100kHz (Ω)	*1 ΔC/C (%)
<b>4 Volt</b>							
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
<b>6.3 Volt</b>							
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
<b>10 Volt</b>							
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.

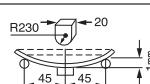
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### QUALIFICATION TABLE

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 172 (*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 172 (*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 172 (*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 172 (*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 172 (*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.



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

AVX:

[F950J107MTAAM1Q](#) [F950J107MTAAM1Q2](#) [F950J686MSAAM1Q](#) [F951A686MBAAM1Q2](#) [F950G227MTAAM1Q](#)  
[F951A107MBAAM1Q2](#) [F950G157MSAAM1Q2](#) [F950J107MAAAM1Q2](#) [F950J686MAAAM1Q](#) [F950G157MSAAM1Q](#)  
[F950J227MBAAM1Q2](#) [F950J686MAAAM1Q2](#) [F951A107MBAAM1Q](#) [F950G337MTAAM1Q2](#) [F950G227MAAAM1Q2](#)  
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[F950G227MAAAM1Q](#) [F950G227MSAAM1Q2](#) [F950G227MSAAM1Q](#) [F950J107MSAAM1Q](#) [F950G107MSAAM1Q2](#)  
[F950J107MAAAM1Q](#) [F951A686MBAAM1Q](#)