



MUSE F95

FRAMELESS™



For SMD



Smaller



For High Frequency



For Audio Use

Upgrade

Conformal coated Chip, For Mobile Audio

- Adapted to the RoHS directive (2002/95/EC).



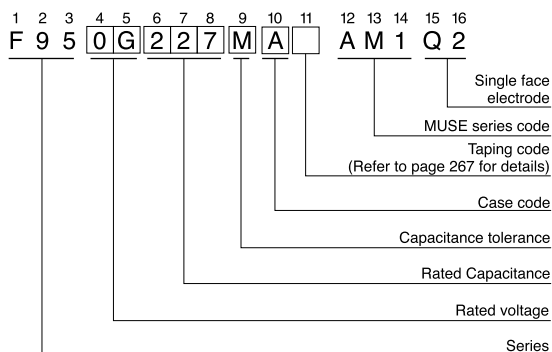
Applications

- Mobile Audio Player
- Digital still camera
- Digital video camcorder
- Mobile phone

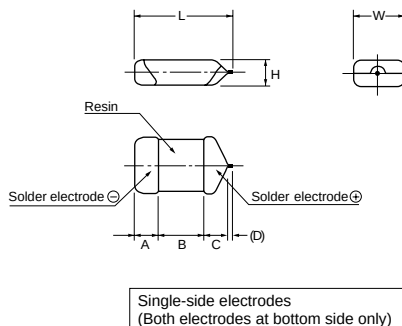
Feature

- 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.

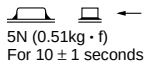
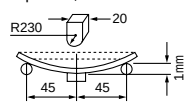
Type numbering system (Example : 4V 220 μ F)



Drawing



Specifications

Item	Performance Characteristics
Category	−55 ~ +125°C (Rated temperature : +85°C)
Temperature Range	
Capacitance Tolerance	± 20% (at 120Hz)
Dissipation Factor (at 120Hz)	Refer to next page
ESR(100kHz)	Refer to next page
Leakage Current	• After 1 minute's application of rated voltage, leakage current at 25°C is not more than 0.01CV or 0.5 μ A, whichever is greater.
Capacitance Change by Temperature	+15% Max. (at +125°C) +10% Max. (at +85°C) −10% Max. (at −55°C)
Damp Heat	At 40°C, 90 ~ 95% R.H., For 500 hours (No voltage applied) Capacitance Change Refer to next page (*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, For 5 cycles, Capacitance Change Refer to next page (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
Resistance to Soldering Heat	Reflow at 260°C for 10 seconds 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 voltage in series with a 33 Ω resistor at the rate of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85°C, capacitors meet the characteristics requirements listed below. Capacitance Change Refer to next page (*1) Dissipation Factor Initial specified value or less Leakage Current Initial specified value or less
Endurance*	After 2000 hours' application of rated voltage at 85°C, or derated voltage at 125°C, capacitors meet the characteristic requirements listed below. Capacitance Change Refer to next page (*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 $\pm$ 1 seconds horizontally to the center of capacitor side body which has no electrode and has been soldered beforehand on an aluminum 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 the capacitor, the pressure strength is applied with a specified jig at the center of the substrate so that the substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals. 

* As for the surge and derated voltage at 125°C, refer to page 266 for details.

Dimensions

case code	L	W	H	A	B	C	(D)
S	3.2 $\pm$ 0.3	1.6 $\pm$ 0.3	1.0 $\pm$ 0.2	0.8 $\pm$ 0.3	1.2 $\pm$ 0.3	0.8 $\pm$ 0.3	(0.2)
A	3.2 $\pm$ 0.3	1.7 $\pm$ 0.3	1.4 $\pm$ 0.2	0.8 $\pm$ 0.3	1.2 $\pm$ 0.3	0.8 $\pm$ 0.3	(0.2)
T	3.5 $\pm$ 0.2	2.7 $\pm$ 0.2	1.0 $\pm$ 0.2	0.8 $\pm$ 0.2	1.2 $\pm$ 0.2	1.1 $\pm$ 0.2	(0.2)
B	3.5 $\pm$ 0.2	2.8 $\pm$ 0.2	1.8 $\pm$ 0.2	0.8 $\pm$ 0.3	1.2 $\pm$ 0.3	1.1 $\pm$ 0.3	(0.2)

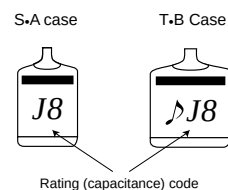
D dimension only for reference

MUSE F95

■ Standard ratings

Cap. (μF)	V	4	6.3	10
Code		0G	0J	1A
68	686	S	S · A	B
100	107	S	S · A · T	B
150	157	S	(A)	
220	227	S · A · T	(T) · B	
330	337	T · B	(B)	
470	477	(B)		
680	687	(B)		

■ Marking



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

() The series in parentheses are being developed.

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

■ Standard ratings

Rated Volt	Rated Capacitance (μF)	Case code	Part Number	Leakage Current (μA)	Dissipation Factor (%@120Hz)	ESR (Ω@100kHz)	*1 ΔC/C (%)
4V	68	S	F950G686MSAAM1Q2	2.7	10	0.8	*
	100	S	F950G107MSAAM1Q2	4.0	14	0.8	*
	150	S	F950G157MSAAM1Q2	6.0	22	0.8	± 15
	220	S	F950G227MSAAM1Q2	8.8	25	0.8	± 15
	220	A	F950G227MAAAM1Q2	8.8	25	0.8	± 15
	220	T	F950G227MTAAM1Q2	8.8	25	0.6	*
	330	T	F950G337MTAAM1Q2	13.2	40	0.8	± 20
	330	B	F950G337MBAAM1Q2	13.2	30	0.5	± 15
6.3V	68	S	F950J686MSAAM1Q2	4.3	14	0.9	*
	68	A	F950J686MAAAM1Q2	4.3	12	0.5	*
	100	S	F950J107MSAAM1Q2	6.3	20	0.9	± 15
	100	A	F950J107MAAAM1Q2	6.3	14	0.5	*
	100	T	F950J107MTAAM1Q2	6.3	14	0.6	*
	220	B	F950J227MBAAM1Q2	13.9	30	0.4	*
10V	68	B	F951A686MBAAM1Q2	6.8	12	0.4	*
	100	B	F951A107MBAAM1Q2	10.0	14	0.4	*

*1 : ΔC/C

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