### EMC Components

Noise suppression filter For audio lines (Cellular band suppression) MAF series



# MAF1608G type



### FEATURES

- O A compact noise suppression component for audio lines that accommodates high currents.
- O Distortions are greatly reduced during insertion with the adoption of newly-developed low distortion ferrite materials.
- Small reductions in volume due to its low resistance, and optimal for devices that require high sound quality as the generating of sound distortions is controlled.
- Shows excellent effects in measures against the deterioration of the receiving sensitivity of wireless devices due to high attenuation characteristics in the cellular band.
- O High efficacy is put for high frequency noise suppression of class-D amplifier harmonics.
- Operating temperature range: -55 to +125°C

### APPLICATION

O Sound lines for devices such as smartphones and tablets (earphones, microphones, and speakers).

○ Sound lines for portable game machines.

### PART NUMBER CONSTRUCTION

	MAF	1608	G	AD	471	С	Т	000
S	eries name	L×W×T dimensions 1.6×0.8x0.6 mm 1.6×0.8x0.8 mm	Characteristics	Internal code	Impedance (Ω) at 900MHz	Internal code	Packaging style	Internal code

### CHARACTERISTICS SPECIFICATION TABLE

Impedance				ince	Rated current*	Thickness	Part No.
[900MHz]		[1.7GHz]					
<b>(</b> Ω <b>)Τур.</b>	<b>(</b> Ω <b>)min</b> .	<b>(</b> Ω <b>)Τyp.</b>	<b>(</b> Ω <b>)Τyp.</b>	<b>(</b> Ω <b>)max.</b>	(A)max.	(mm)max.	
120	72	90	0.021	0.027	3.2	0.75	MAF1608GAD121LTAH0
200	120	160	0.045	0.059	2.3	0.75	MAF1608GAD201LTAH0
470	290	350	0.060	0.075	1.6	0.75	MAF1608GAD471LTAH0
470	290	270	0.060	0.075	1.6	0.95	MAF1608GAD471CT000
600	400	270	0.110	0.150	1.0	0.95	MAF1608GAD601CT000
	[900MHz] (Ω)Typ. 120 200 470 470	[900MHz]         (Ω)min.           120         72           200         120           470         290           470         290	[900MHz]         [1.7GHz]           (Ω)Typ.         (Ω)min.         (Ω)Typ.           120         72         90           200         120         160           470         290         350           470         290         270	[900MHz]         [1.7GHz]           (Ω)Typ.         (Ω)min.         (Ω)Typ.         (Ω)Typ.           120         72         90         0.021           200         120         160         0.045           470         290         350         0.060           470         290         270         0.060	[900MHz]         [1.7GHz]           (Ω)Typ.         (Ω)min.         (Ω)Typ.         (Ω)Typ.         (Ω)max.           120         72         90         0.021         0.027           200         120         160         0.045         0.059           470         290         350         0.060         0.075           470         290         270         0.060         0.075	[900MHz]         [1.7GHz]         (Ω)Typ.         (Ω)max.         (A)max.           120         72         90         0.021         0.027         3.2           200         120         160         0.045         0.059         2.3           470         290         350         0.060         0.075         1.6           470         290         270         0.060         0.075         1.6	[900MHz]         [1.7GHz]         (Ω)Typ.         (Ω)max.         (A)max.         (mm)max.           120         72         90         0.021         0.027         3.2         0.75           200         120         160         0.045         0.059         2.3         0.75           470         290         350         0.060         0.075         1.6         0.75           470         290         270         0.060         0.075         1.6         0.95

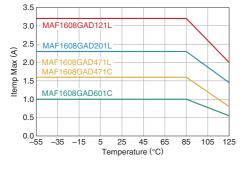
\*Please refer to the graph of rated current vs. temperature characteristics (derating) about the rating current at 85°C or more in temperature of the product.

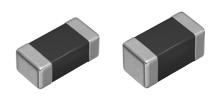
#### Measurement equipment

Measurement item	Product No.	Manufacturer		
Impedance	E4991A+16192A	Keysight Technologies		
DC resistance	Type-7556	Yokogawa		
* Equivalent measurement equipment may be used				

\* Equivalent measurement equipment may be used.

Rated current vs. temperature characteristics (derating)



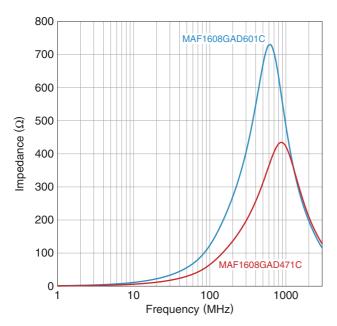


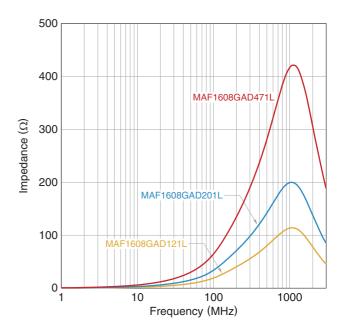
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (1/4) Please note that the contents may change without any prior notice due to reasons such as upgrading.

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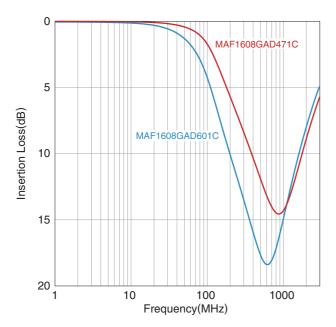
# MAF1608G type

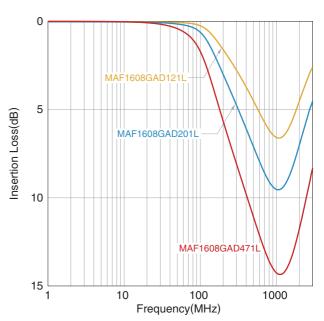
### Z VS. FREQUENCY CHARACTERISTICS





### ■INSERTION LOSS VS. FREQUENCY CHARACTERISTICS





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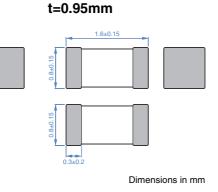
## MAF1608G type

### **SHAPE & DIMENSIONS**

1.6±0.15

#### t=0.75mm

1 0 05 .....



Soldering

Peak 250 to 260°C

10s

30 to 60s

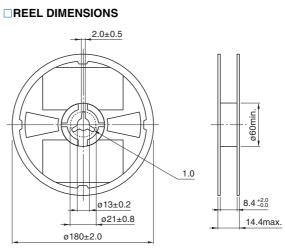
230°C

180°C

Natural cooling

230°C

### PACKAGING STYLE



Dimensions in mm

### RECOMMENDED LAND PATTERN

RECOMMENDED REFLOW PROFILE

Preheating

60 to 120s

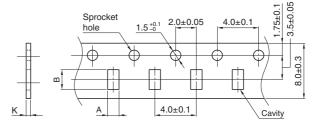


Temperature

150°C

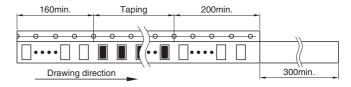
Dimensions in mm





Dimensions in mm

Туре	А	В	К
MAF1608G	1.1±0.2	1.9±0.2	1.1max.



Dimensions in mm

### **PACKAGE QUANTITY**

Package quantity 4,000 pcs/reel

### **TEMPERATURE RANGE, INDIVIDUAL WEIGHT**

Туре	Operating temperature range	Storage temperature range*	Individual weight
t=0.75mm	–55 to +125 °C	–55 to +125 °C	3 mg
t=0.95mm	–55 to +125 °C	–55 to +125 °C	4 mg

\* The storage temperature range is for after the assembly.

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### **REMINDERS FOR USING THESE PRODUCTS**

Before using these products, be sure to request the delivery specifications.

## SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.					
O Do not use or store in locations where there are conditions such as	gas corrosion (salt, acid, alkali, etc.).				
Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.					
Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.					
When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.					
<ul> <li>Self heating (temperature increase) occurs when the power is tur design.</li> </ul>	rned ON, so the tolerance should be sufficient for the set thermal				
<ul> <li>Carefully lay out the coil for the circuit board design of the non-mag</li> <li>A malfunction may occur due to magnetic interference.</li> </ul>	netic shield type.				
$\bigcirc$ Use a wrist band to discharge static electricity in your body through	the grounding wire.				
O Do not expose the products to magnets or magnetic fields.					
$\bigcirc$ Do not use for a purpose outside of the contents regulated in the d	elivery specifications.				
<ul> <li>The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.</li> <li>The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.</li> <li>If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.</li> </ul>					
<ul> <li>(1) Aerospace/aviation equipment</li> <li>(2) Transportation equipment (cars, electric trains, ships, etc.)</li> <li>(3) Medical equipment</li> <li>(4) Power-generation control equipment</li> <li>(5) Atomic energy-related equipment</li> <li>(6) Seabed equipment</li> <li>(7) Transportation control equipment</li> </ul>	<ul> <li>(8) Public information-processing equipment</li> <li>(9) Military equipment</li> <li>(10) Electric heating apparatus, burning equipment</li> <li>(11) Disaster prevention/crime prevention equipment</li> <li>(12) Safety equipment</li> <li>(13) Other applications that are not considered general-purpose applications</li> </ul>				
When designing your equipment even for general-purpose application tection circuit/device or providing backup circuits in your equipment.	is, you are kindly requested to take into consideration securing pro-				

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (4/4) Please note that the contents may change without any prior notice due to reasons such as upgrading.