Noise suppression filter
For audio lines (Bluetooth and WiFi bands suppression)
MAF series

RoHS | REACH SVHC-Free | Halogen Free | Lead Free

MAF1005GW type

Product Portal | Search | Simulation Model | Selection Guide | Tech Library | Tech Note | Application Guides

FEATURES

- A noise suppression component for audio lines.
- 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.
- The high-attenuation characteristics of the Bluetooth band, WiFi band, and cellular band are highly effective in preventing degradation of the reception sensitivity of radio equipment.
- Operating temperature range: –55 to +125°C

APPLICATION

- Sound lines for devices such as smartphones, tablets, Bluetooth headset, headset, hearing aids and wearable equipments (earphones, microphones, and speakers).
- Sound lines for portable game machines.

PART NUMBER CONSTRUCTION

MAF	1005	G	WZ	102	A	T	000
Series name	L×W×T dimensions 1.0×0.5x0.5 mm	Characteristics	Internal code	Impedance (Ω) at 900MHz	Type	Packaging style	Internal code

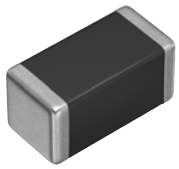
CHARACTERISTICS SPECIFICATION TABLE

Impedance					DC resistance		Rated current	Part No.
[100MHz] (Ω)Typ.	[900MHz] (Ω)Typ.	(Ω)Min.	[1.7GHz] (Ω)Typ.	[2.4GHz] (Ω)Typ.	(Ω)Typ.	(Ω)max.	(mA)max.	
160	1000	600	2300	2800	1.30	1.60	150	MAF1005GWZ102AT000

Measurement equipment

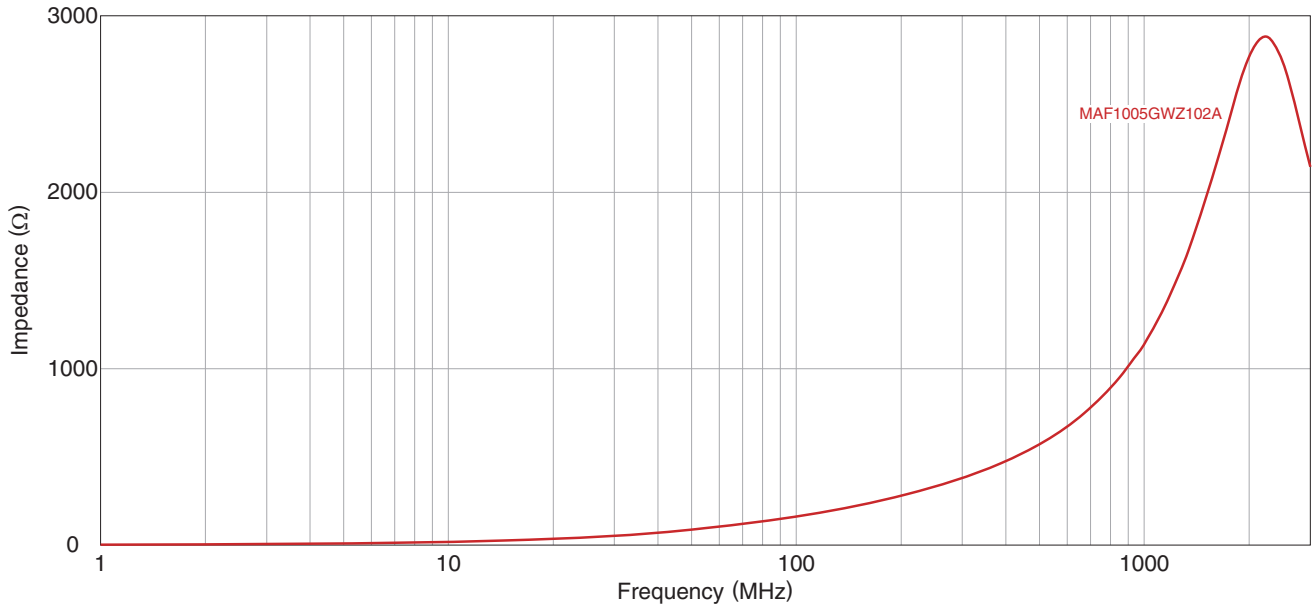
Measurement item	Product No.	Manufacturer
Impedance	E4991A+16192A	Keysight Technologies
DC resistance	Type-7556	Yokogawa

＊ Equivalent measurement equipment may be used.

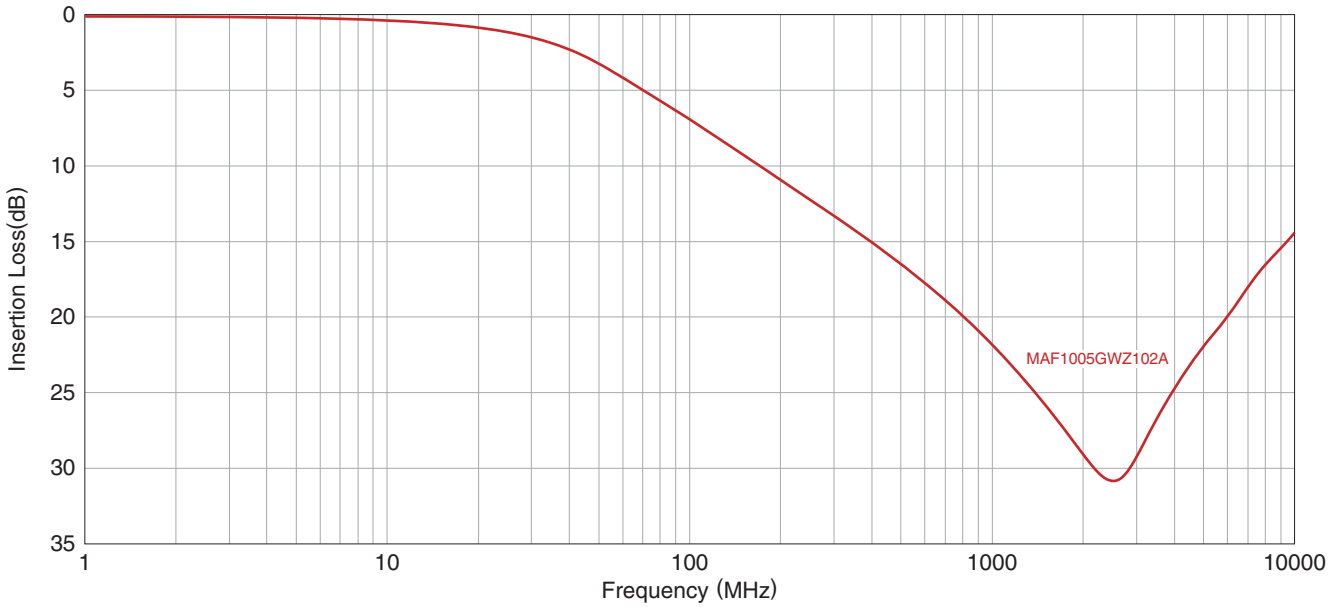


MAF1005GW type

Z FREQUENCY CHARACTERISTICS

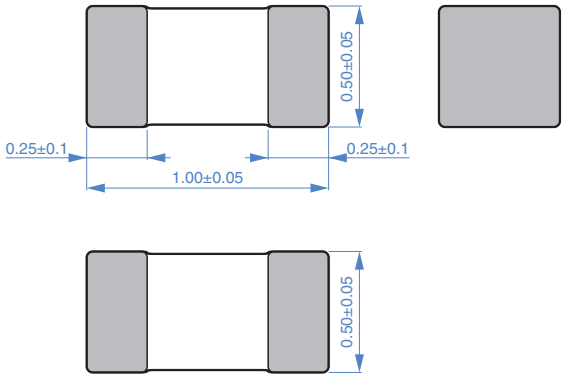


INSERTION LOSS VS. FREQUENCY CHARACTERISTICS



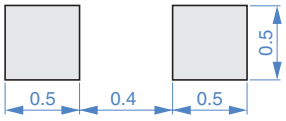
MAF1005GW type

SHAPE & DIMENSIONS



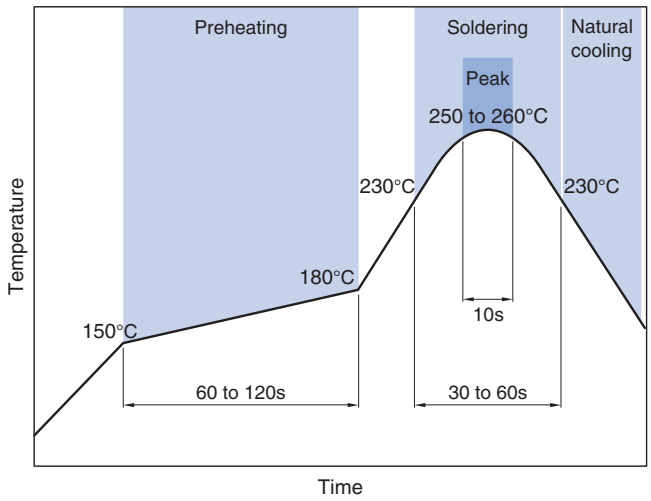
Dimensions in mm

RECOMMENDED LAND PATTERN



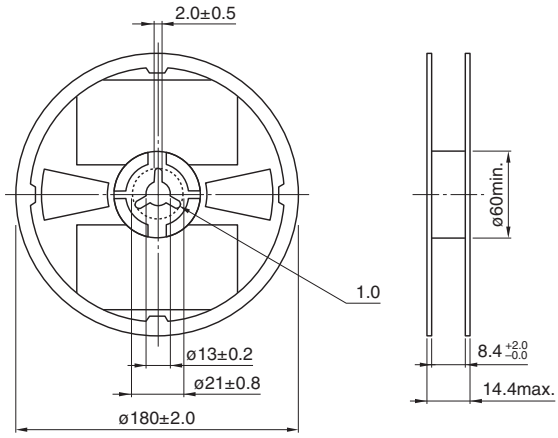
Dimensions in mm

RECOMMENDED REFLOW PROFILE



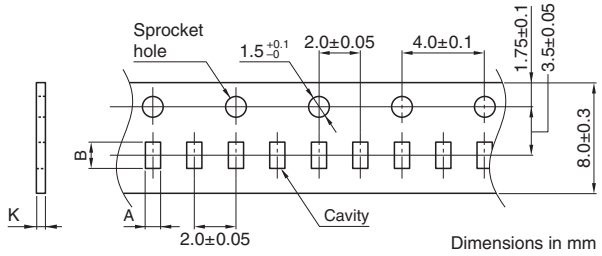
PACKAGING STYLE

REEL DIMENSIONS



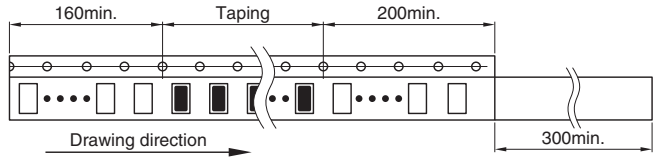
Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

Type	A	B	K
MAF1005GW	0.65±0.1	1.15±0.1	0.8max.



Dimensions in mm

PACKAGE QUANTITY

Package quantity	10,000 pcs/reel

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range	Storage temperature range*	Individual weight
–55 to +125	–55 to +125	1 mg

* The storage temperature range is for after the assembly.

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.

⚠ REMINDERS

- 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.
- 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.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
  A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- 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.
  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.
  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.

(1) Aerospace/aviation equipment
(2) Transportation equipment (cars, electric trains, ships, etc.)
(3) Medical equipment
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention equipment
(12) Safety equipment
(13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

Mouser Electronics

Authorized Distributor

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

TDK:
MAF1005GWZ102AT000