

Common mode filters/Chokes

Automobile Ultra-high-speed differential signal line (for infotainment)

ACM-H series



AEC-Q200

ACM2012H-T03 type



FEATURES

- Highly reliable with a temperature range of -40 to +105°C.
- Common mode EMI measure: Possible to suppress waveform common mode EMI without straining the waveform.
- Operating temperature range: -40 to +105°C
- Compliant with AEC-Q200

APPLICATION

- Radiated noise suppression for car multimedia interfaces (MOST, HDMI, IDB-1394, etc.).
- Portable PC and PC interfaces (USB, IEEE1394)
- DVC, CD/DVD-ROM, etc.

PART NUMBER CONSTRUCTION

ACM	2012	H	-	900	-	2P	-	T	03
Series name	L×W×H dimensions 2.0×1.2×1.2 mm	Product identification code		Impedance (Ω) at 100MHz		Number of lines		Packaging style	Internal code

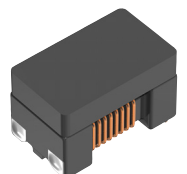
CHARACTERISTICS SPECIFICATION TABLE

Common mode impedance	DC resistance	Rated current	Rated voltage	Insulation resistance	Cutoff frequency	Characteristic impedance	Part No.
[at 100MHz] (Ω)min. (Ω)typ.	[1 line] (Ω)max.	(mA)max.	(V)max.	(MΩ)min.	(GHz)typ.	(Ω)typ.	
65 90	0.30	300	50	10	5	100	ACM2012H-900-2P-T03

Measurement equipment

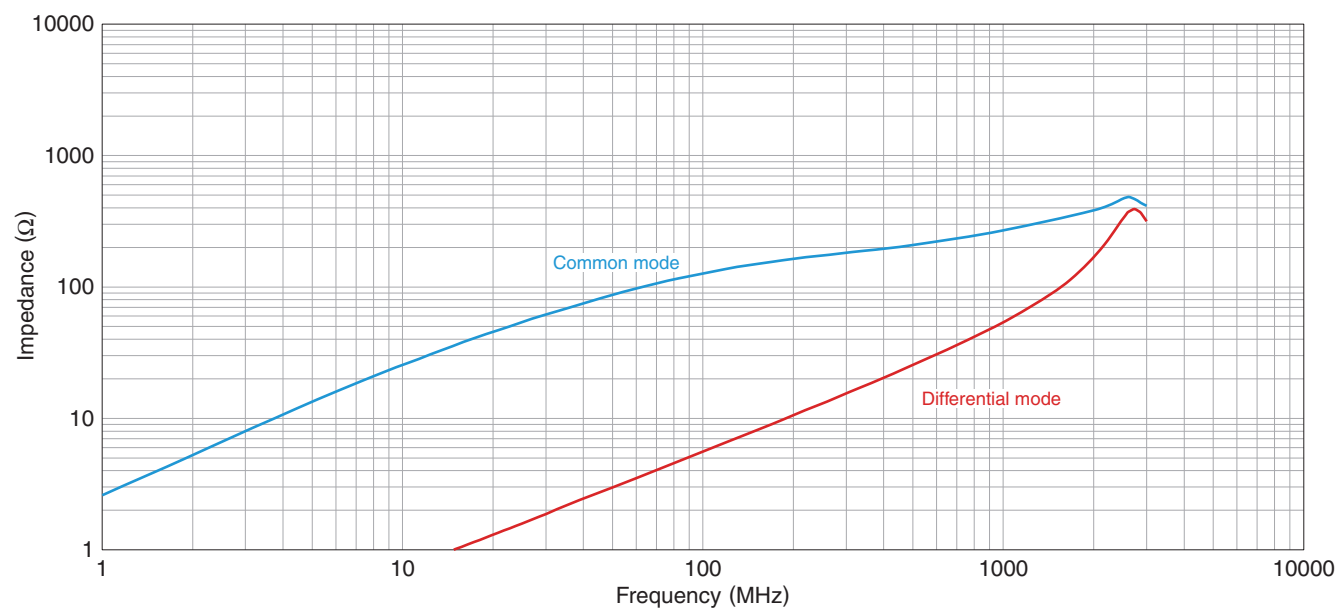
Measurement item	Product No. *	Manufacturer
Common mode impedance	4991A	Keysight Technologies
DC resistance	4338A	Keysight Technologies
Insulation resistance	4339A	Keysight Technologies

* Equivalent measurement equipment may be used.



ACM2012H-T03 type

■ IMPEDANCE VS. FREQUENCY CHARACTERISTICS



Measurement equipment

Product No. *	Manufacturer
4991A	Keysight Technologies

* Equivalent measurement equipment may be used.

■ SHAPE & DIMENSIONS



A diagram showing a 2x2 grid of rectangles. The width of each rectangle is 0.75, and the height is 0.4. The spacing between the rectangles is 1.1 horizontally and 0.4 vertically.

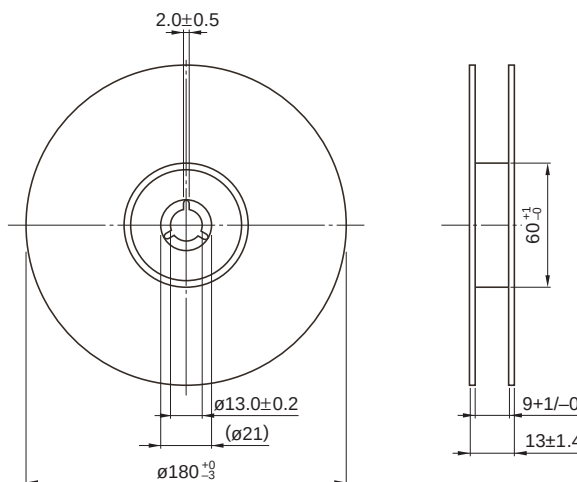
Dimensions in mm

- No polarity

The graph illustrates a heat treatment cycle with the following stages and parameters:

- Preheating:** Temperature increases from 150°C to 180°C. Duration: 60 to 120s.
- Soldering:** Temperature increases from 180°C to a peak of 245°C. Duration: 10 to 30s.
- Natural cooling:** Temperature decreases from 245°C to 230°C. Duration: 5s max.

REEL DIMENSIONS



Dimensions in mm

Technical drawing of a mechanical part with dimensions and tolerances. The drawing includes a side view on the left and a top view on the right. The side view shows a profile with a width of 0.25 ± 0.05 and a feature labeled 'K'. The top view shows a rectangular part with a width of 8 ± 0.2 and a height of 1.75 ± 0.1 . The top view also shows a central cavity with a width of 4 ± 0.1 and a depth of 2 ± 0.1 . There are four circular holes, each with a diameter of $\varnothing 1.5^{+0.1}_{-0}$, spaced at 2 ± 0.1 intervals. A 'Sprocket hole' is indicated. The part is labeled 'A' and 'B'.

Dimensions in mm

Figure 1 is a schematic diagram of the drawing process. It shows a cross-section of a wire being drawn through a die. The process is divided into three main sections: a 160min. section, a Taping section, and a 440min. section. The total length is 500 to 560min. The drawing direction is indicated by an arrow pointing to the right.

Dimensions in mm

Package quantity	2,000 pcs/reel
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Operating temperature range *	Storage temperature range **	Individual weight
-40 to +105 °C	-40 to +105 °C	10 mg

* Operating temperature range includes self-heating.

** 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.).
- 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 (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.