

Common mode filters Automotive signal line (for power train/safety) **ACT** series











ACT1210L-201 type















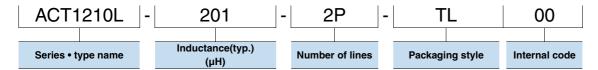
FEATURES

- Ocompact products (3225 size), whose characteristics are equivalent to that of conventional products (ACT45L).
- Ocommon mode filters for automotive Ethernet, compatible with an operating temperature range of -40 to +125°C.
- O ACT1210L for Ethernet, which uses our unique technology, is a product that can realize higher-level Scd21 mode conversion characteristics while maintaining a high L-value of 200µH.
- Operating temperature range: -40 to +125°C
- Ocompliant with AEC-Q200

APPLICATION

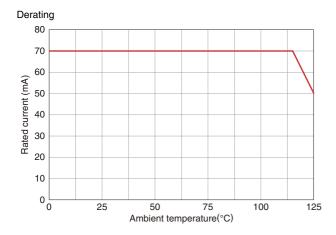
O Ethernet system.

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

Common mo	ode inductance	DC resistance	Insulation resistance	Rated current	Rated voltage	Part No.
[100KH2] (µH)	Tolerance	(Ω)max.	(M Ω)min.	(mA)max.	(V)max.	
200	+30/-10%	5.5	10	70	80	ACT1210L-201-2P-TL00



Measurement equipment

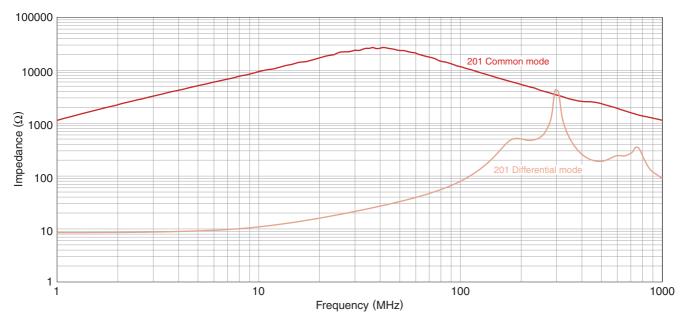
Measurement item	Product No.	Manufacturer
Common mode inductance	4294A	Keysight Technologies
DC resistance	4338A	Keysight Technologies
Insulation resistance	4339A	Keysight Technologies

^{*} Equivalent measurement equipment may be used.



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■IMPEDANCE VS. FREQUENCY CHARACTERISTICS



Measurement equipment

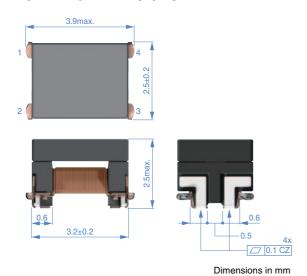
Product No.	Manufacturer
4991A	Keysight Technologies

^{*} Equivalent measurement equipment may be used.

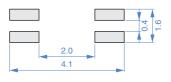


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■SHAPE & DIMENSIONS

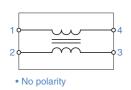


■ RECOMMENDED LAND PATTERN

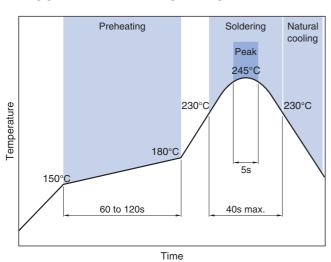


Dimensions in mm

CIRCUIT DIAGRAM

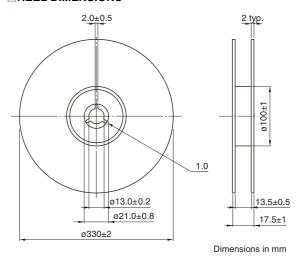


■ RECOMMENDED REFLOW PROFILE

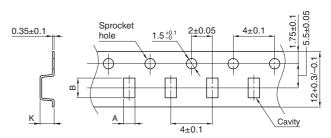


■PACKAGING STYLE

□REEL DIMENSIONS



TAPE DIMENSIONS



Dimensions in mm

Type	Α	В	K
ACT1210L-201	2.85±0.1	4.2±0.1	2.7±0.1
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PACKAGE QUANTITY

Package quantity	6,000 pcs/reel

■TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range	Individual weight
-40 to +125°C	0.075 g

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 less than 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.	% RH or
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 not exceed 150°C.	perature
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 the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.	p due to
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set design.	thermal
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 ment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement ment, 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/ity require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to	nt equip- /or qual-

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (electric trains, ships, etc.)

set forth in the each catalog, please contact us.

(3) Medical equipment

person or property.

- (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.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions