

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Common Mode Filters

For high-speed differential signal line (USB2.0, LVDS, etc.)

**MCZ-AH Series** 

# MCZ0605AH Type

MCZ0605AH

[0202 inch]\*

\* Dimensions Code JIS[EIA]

#### 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 these 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% or less).  If the storage period elapses, the soldering of the terminal electrodes may deteriorate.	6 RH			
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.	ure			
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 the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.	e to			
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.	I			
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.	r			

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment

set forth in the each catalog, please contact us.

- (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



#### **Common Mode Filters**

For high-speed differential signal line (USB2.0, LVDS, etc.)

Product compatible with RoHS directive
Halogen-free
Compatible with lead-free solders

# **Overview of MCZ0605AH Type**

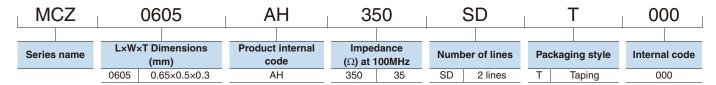
#### **FEATURES**

- Compact multilayer common mode filter.
- Has EMC suppression by achieving wide frequency range differential mode transmission while ensuring common mode impedance with virtually no affect on the high-speed differential transmission line signal.

#### APPLICATION

- O Electronic equipment high-speed interface (LVDS, USB2.0, MHL)
- O Mobile phones, PCs, DSCs, portable game machines, etc.
- OPDP/LCD/DLP/PJ TVs, DVD players, DVCs, mobile audio, etc.

#### PART NUMBER CONSTRUCTION



#### ■ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

	Temperature range		Package quantity	Individual weight
Type	Operating	Storage		
-,,,,,	temperature	temperature*		
	(°C)	(°C)	(pieces/reel)	(mg)
MCZ0605AH	-40 to +85	-40 to +85	10,000	0.6

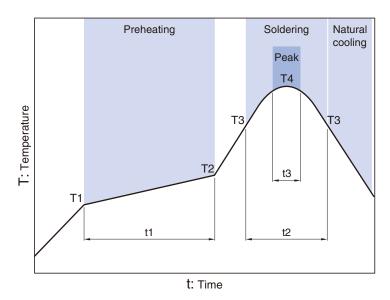
<sup>\*</sup> The Storage temperature range is for after the circuit board is mounted.

RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

O Halogen-free: Indicates that CI content is less than 900ppm, Br content is less than 900ppm, and that the total CI and Br content is less than 1500ppm.



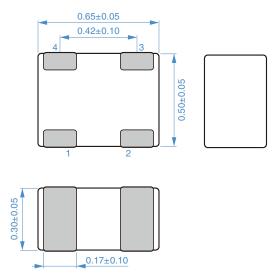
#### ■ RECOMMENDED REFLOW PROFILE



Soldering Preheating Peak Temp. Temp. Temp. Time Time Time T1 T2 T4 Т3 t3 150°C 180°C 60 to 120s 230°C 250 to 260°C 30 to 60s 10s max.



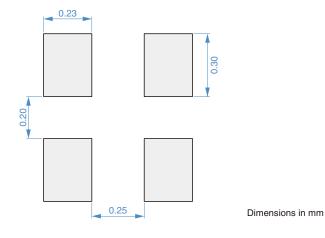
#### ■SHAPE & DIMENSIONS



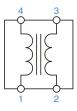


Dimensions in mm

#### ■ RECOMMENDED LAND PATTERN



#### **CIRCUIT DIAGRAM**



• No polarity

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



#### **ELECTRICAL CHARACTERISTICS**

#### **CHARACTERISTICS SPECIFICATION TABLE**

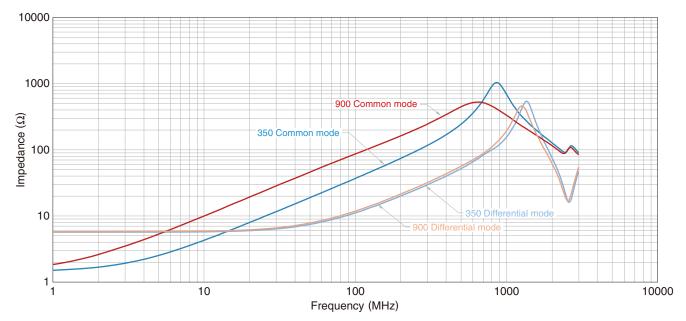
Common mo impedance	ode	DC resi	stance	Rated current	Rated voltage	Insulation resistance	Part No.
[100MHz]		[1 line]					
$(\Omega)$	Tolerance	<b>(</b> Ω)	Tolerance	(mA)max.	(V)max.	$(M\Omega)$ min.	
<b>\</b> /	1010141100	(22)	Tolerance	(IIIA)IIIAA.	(v)IIIax.	(10152)111111.	
35	±25%	3.0	±30%	100	5	10	MCZ0605AH350SDT000

#### O Measurement equipment

Measurement item	Product No.	Manufacturer	
Common mode impedance	E4991A+16192A	Keysight Technologies	
DC resistance	Type-7561	Yokogawa	
Insulation resistance	4339B	Keysight Technologies	

<sup>\*</sup> Equivalent measurement equipment may be used.

#### ☐ IMPEDANCE VS. FREQUENCY CHARACTERISTICS



#### $\bigcirc$ Measurement equipment

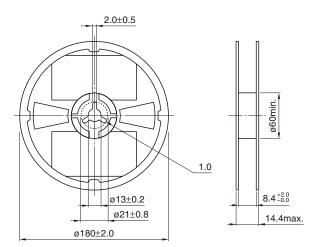
Product No.	Manufacturer
E4991A+16192A	Keysight Technologies

<sup>\*</sup> Equivalent measurement equipment may be used.



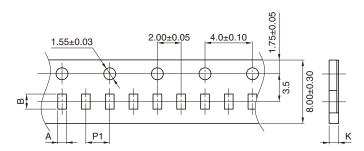
#### **■PACKAGING STYLE**

#### **□REEL DIMENSIONS**



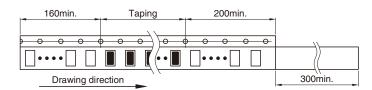
Dimensions in mm

#### **TAPE DIMENSIONS**



Dimensions in mm

Type	Α	В	P1	K	Ī
MCZ0605AH	0.63±0.03	0.77±0.03	2.0±0.05	0.42±0.03	_



Dimensions in mm