

# Common Mode Filters

## For High-speed Differential Signal Line / General Signal Line

Conformity to RoHS Directive

### ACM Series ACM2012, 2520

#### FEATURES

- Although greatly miniaturized, this wire-wound chip-type filter maintains the characteristics needed for a common mode filter. Common mode impedance is 1000Ω [at 100MHz], so this filter is greatly effective in supporting noise.
- Almost no affect upon even high speed signals since differential mode impedance is kept low.
- This series includes both 2-line and 3-line types. They are used for various types of circuits and noise.

#### APPLICATIONS

- Used for radiation noise suppression for any electronic devices.
- Used to counter common mode noise affecting signals within high-speed lines.
- USB line for personal computers and peripheral equipment.
- IEEE1394 line for personal computers, DVC, STB, etc.
- LVDS, panel link line for liquid crystal display panels.

#### TEMPERATURE RANGES

Operating	-40 to +85°C
Storage(After mount)	-40 to +85°C

#### PACKAGING STYLE AND QUANTITIES

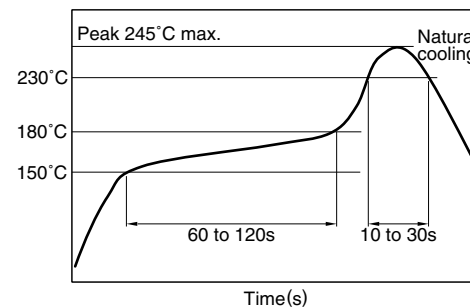
Packaging style	Type	Reel	Quantity
Taping	ACM2012	ø180mm	2000 pieces/reel
		ø330mm	10000 pieces/reel
	ACM2520	ø180mm	2000 pieces/reel
		ø330mm	10000 pieces/reel

#### PRODUCT IDENTIFICATION

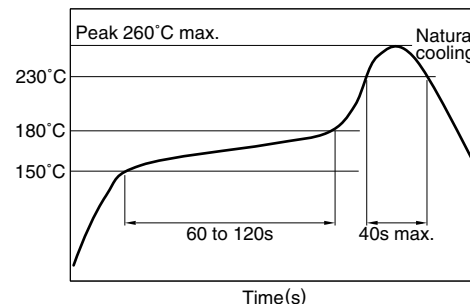
ACM	2012	-	900	-	2P	-	T	□□□
(1)	(2)	(3)	(4)	(5)	(6)			

- (1) Series name
- (2) Dimensions L×W  
2012: 2.0×1.2mm
- (3) Impedance[at 100MHz]  
900: 90Ω
- (4) Number of line  
2P: 2-line  
3P: 3-line
- (5) Packaging style  
T: ø180mm reel taping  
TL: ø330mm reel taping
- (6) TDK internal code

#### RECOMMENDED SOLDERING CONDITIONS RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



#### REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



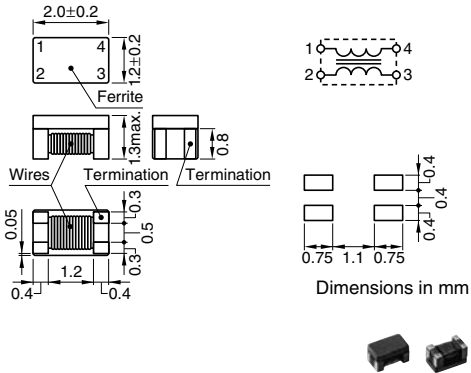
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

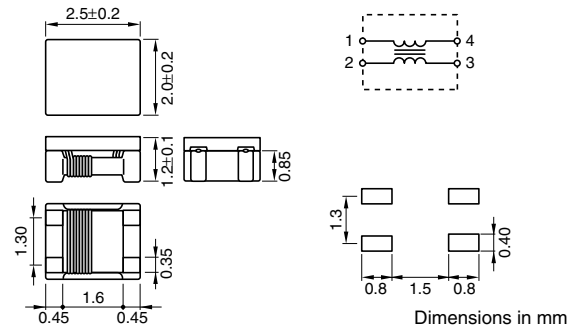
## SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS/RECOMMENDED PC BOARD PATTERNS

### 2-LINE TYPE

#### ACM2012-2P

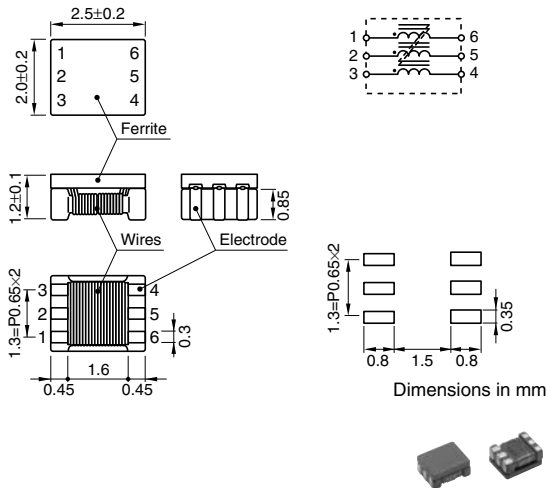


#### ACM2520-2P



### 3-LINE TYPE

#### ACM2520-3P



## ELECTRICAL CHARACTERISTICS

Part No.	Impedance ( $\Omega$ )typ.[100MHz]	DC resistance ( $\Omega$ )max.[per 1 line]	Rated voltage E <sub>dc</sub> (V)max.	Rated current I <sub>dc</sub> (A)max.
<b>2-LINE</b>				
ACM2012-900-2P	90	0.19	50	0.4
ACM2012-121-2P	120	0.22	50	0.37
ACM2012-201-2P	200	0.25	50	0.35
ACM2012-361-2P	360	0.5	50	0.22
ACM2520-301-2P	300	0.35	20	0.4
ACM2520-451-2P	450	0.4	20	0.35
ACM2520-601-2P	600	0.45	20	0.3
ACM2520-102-2P	1000	0.9	20	0.2
<b>3-LINE</b>				
ACM2520-801-3P	800	1.6	20	0.15

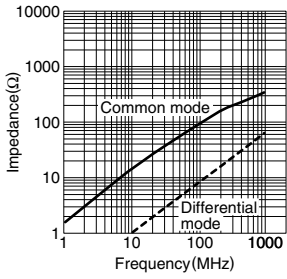
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# TYPICAL ELECTRICAL CHARACTERISTICS

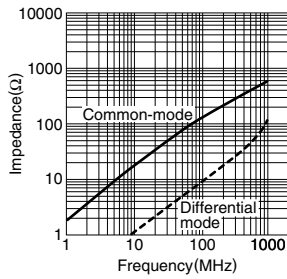
## IMPEDANCE vs. FREQUENCY CHARACTERISTICS

### 2-LINE

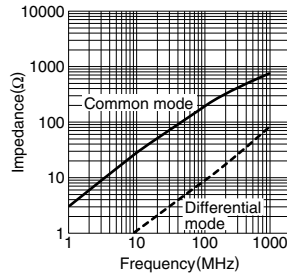
**ACM2012-900-2P**



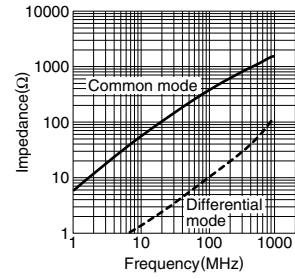
**ACM2012-121-2P**



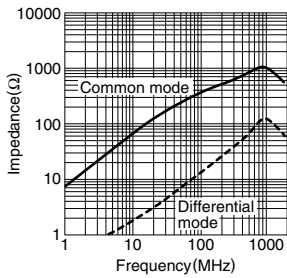
**ACM2012-201-2P**



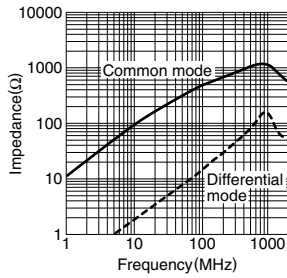
**ACM2012-361-2P**



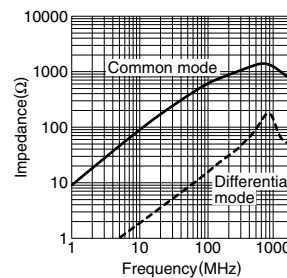
**ACM2520-301-2P**



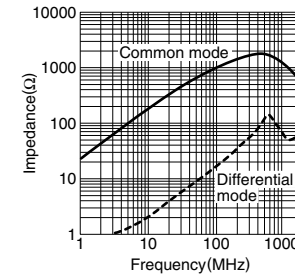
**ACM2520-451-2P**



**ACM2520-601-2P**

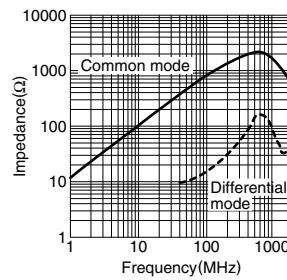


**ACM2520-102-2P**



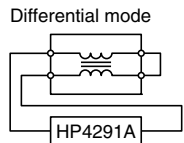
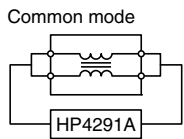
### 3-LINE

**ACM2520-801-3P**

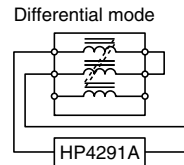
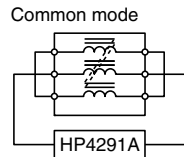


## MEASURING CIRCUITS

### 2-LINE



### 3-LINE



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