

Common Mode Filters(SMD) For High-speed Differential Signal Line / General Signal Line

Conformity to RoHS Directive

ACM Series ACM2012, 2520, 3225, 4532 Types

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.

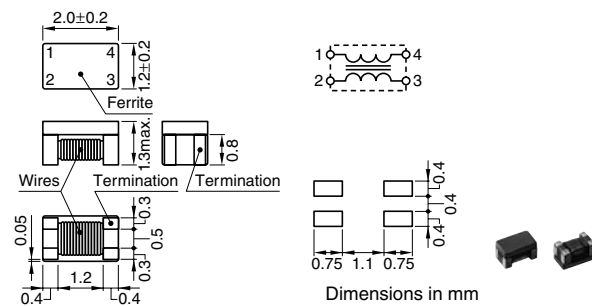
APPLICATIONS

- 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.

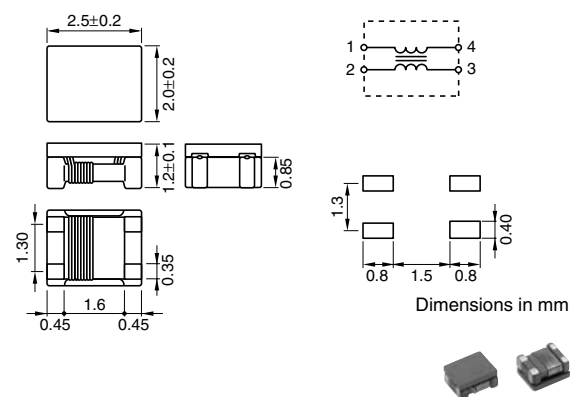
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS/ RECOMMENDED PC BOARD PATTERNS

2-LINE TYPE

ACM2012-2P



ACM2520-2P



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: $\phi 180$ mm reel taping
TL: $\phi 330$ mm reel taping
- (6) TDK internal code

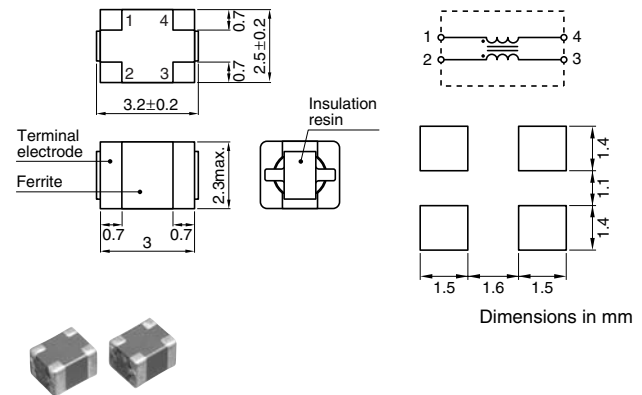
TEMPERATURE RANGE

| | |
|-----------|--------------|
| Operating | -25 to +85°C |
|-----------|--------------|

PACKAGING STYLE AND QUANTITIES

| Packaging style | Type | Reel | Quantity |
|-----------------|---------------|------------------|-------------------|
| Taping | ACM2012 | $\phi 180$ mm | 2000 pieces/reel |
| | | $\phi 330$ mm | 10000 pieces/reel |
| | ACM2520 | $\phi 180$ mm | 2000 pieces/reel |
| | | $\phi 330$ mm | 10000 pieces/reel |
| | ACM3225 | $\phi 180$ mm | 1000 pieces/reel |
| | | $\phi 330$ mm | 5000 pieces/reel |
| ACM4532 | $\phi 180$ mm | 500 pieces/reel | |
| | $\phi 330$ mm | 2000 pieces/reel | |

ACM3225-2P



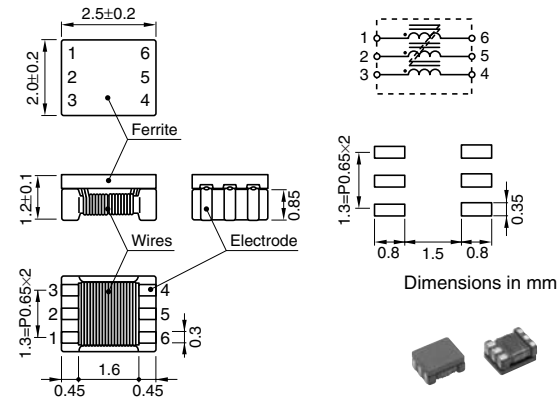
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

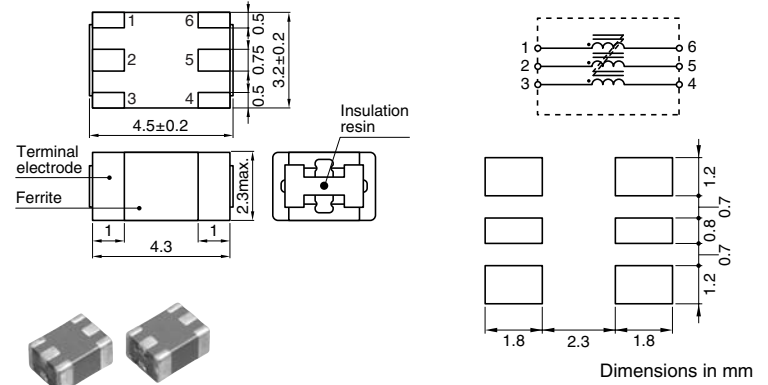
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS/RECOMMENDED PC BOARD PATTERNS

3-LINE TYPE

ACM2520-3P



ACM4532-102-3P

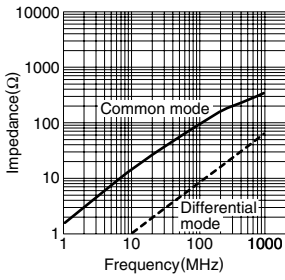


ELECTRICAL CHARACTERISTICS

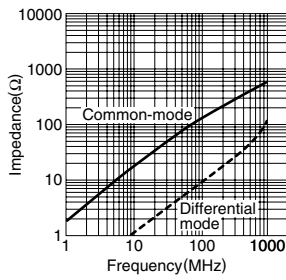
| Part No. | Impedance (Ω)typ.[100MHz] | DC resistance (Ω)max.[Per 1 line] | Rated voltage Edc(V)max. | Rated current Idc(A)max. |
|----------------|---------------------------------------|---|-----------------------------|-----------------------------|
| 2-LINE | | | | |
| ACM2012-900-2P | 90 | 0.19 | 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 |
| ACM3225-800-2P | 80 | 0.15 | 20 | 0.4 |
| ACM3225-161-2P | 160 | 0.2 | 20 | 0.35 |
| ACM3225-271-2P | 270 | 0.3 | 20 | 0.3 |
| ACM3225-102-2P | 1000 | 0.5 | 20 | 0.2 |
| 3-LINE | | | | |
| ACM2520-801-3P | 800 | 1.6 | 20 | 0.15 |
| ACM4532-102-3P | 1000 | 0.6 | 20 | 0.2 |

TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS

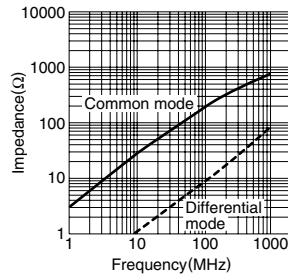
ACM2012-900-2P



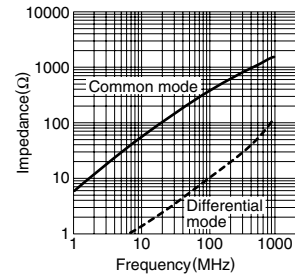
ACM2012-121-2P



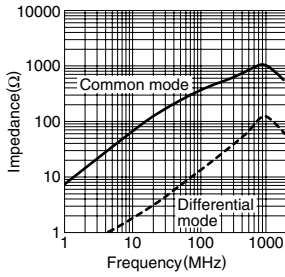
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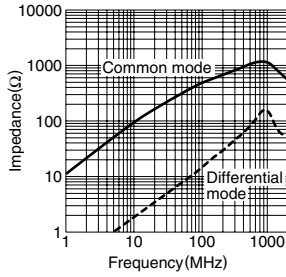
ACM2012-361-2P



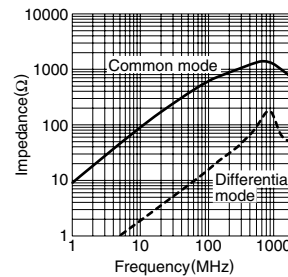
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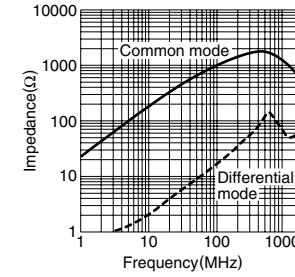
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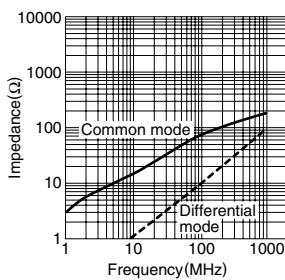
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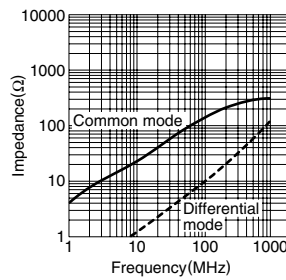
ACM2520-102-2P



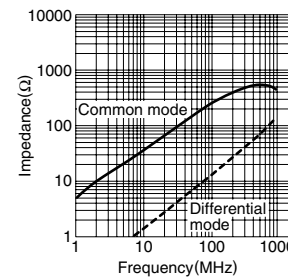
ACM3225-800-2P



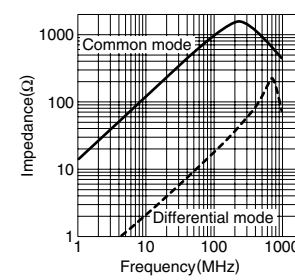
ACM3225-161-2P



ACM3225-271-2P



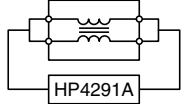
ACM3225-102-2P



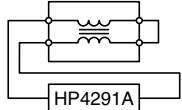
MEASURING CIRCUITS

2-LINE

Common mode

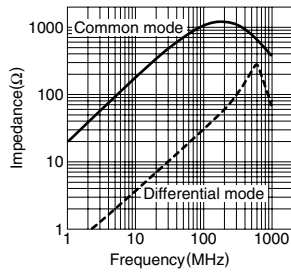
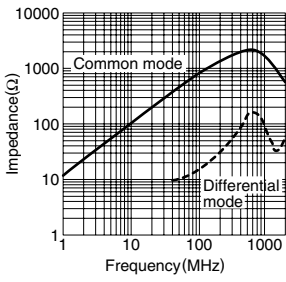


Differential mode



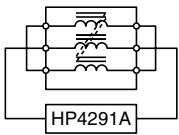
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TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS
ACM2520-801-3P ACM4532-102-3P



MEASURING CIRCUITS
3-LINE

Common mode



Differential mode

