⊗TDK

Common Mode Filters

For power line

ACM series

| Туре: | ACM4520 | [1808 inch]* |
|-------|---------|-------------------------|
| | ACM7060 | [2824 inch] |
| | ACM9070 | [3628 inch] |
| | ACM1211 | [4844 inch] |
| | ACM1513 | [6052 inch] |
| | | * Dimensions Code [EIA] |

Issue date: March 2013

• All specifications are subject to change without notice.

• 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.

Common Mode Filters For Power Line

ACM Series ACM4520

FEATURES

- Several large current products are prepared to correspond to the various applications.
- Low profile and compact shape, it is suited for surface mounting.
- It shows high common mode impedance despite of its compact shape.

APPLICATIONS

Radiation noise suppression for power line (DVC, DVD cam, DSC, etc.)

TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

| Packaging style Reel C | | Quantity | |
|------------------------|--------|------------------|--|
| Taping | ø180mm | 800 pieces/reel | |
| таріпу | ø330mm | 2500 pieces/reel | |

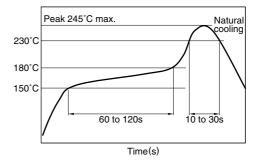
PRODUCT IDENTIFICATION

| ACM | 4520 | - 901 | - 2P | - T - | |
|-----|------|-------|------|-------|-----|
| (1) | (2) | (3) | (4) | (5) | (6) |

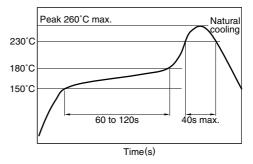
(1) Series name

- (2) Dimensions W×T 4520: 4.5×2.0mm
- (3) Impedance [at 100MHz] 901: 900Ω
- (4) Numbers of lines 2P: 2-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

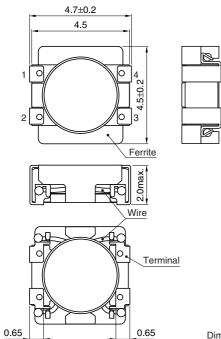


• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

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SHAPES AND DIMENSIONS





Dimensions in mm

0.75

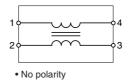
0.75

2.0

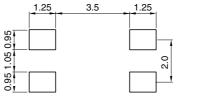
ELECTRICAL CHARACTERISTICS

| Common m impedance Ω)[at 100M | | e | DC resistance (Ω) max. | Rated current Idc (A)max. | | Rated voltage Edc —— (V)max. | Insulation resistance |
|-------------------------------------|------|------|-------------------------------|---------------------------------|------|------------------------------------|--------------------------|
| | min. | typ. | — [1 line] | 60°C | 85°C | (v)max. | $(M\Omega)$ min. |
| ACM4520-231-2P | 180 | 230 | 0.05 | 3.0 | 2.6 | 50 | 10 |
| ACM4520-421-2P | 300 | 420 | 0.055 | 2.8 | 2.4 | 50 | 10 |
| ACM4520-901-2P | 650 | 900 | 0.06 | 2.3 | 2.0 | 50 | 10 |
| ACM4520-142-2P | 1000 | 1400 | 0.08 | 1.7 | 1.5 | 50 | 10 |

CIRCUIT DIAGRAM



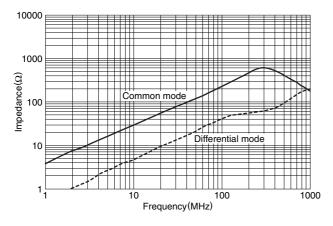
RECOMMENDED PC BOARD PATTERN



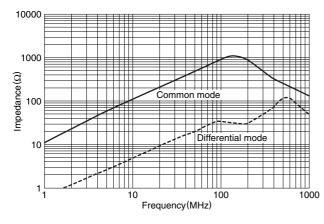
Dimensions in mm

• All specifications are subject to change without notice.

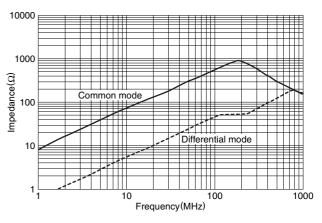
TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS ACM4520-231-2P

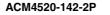


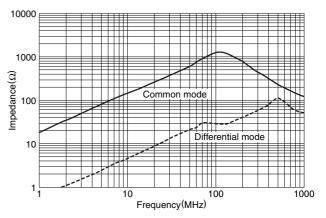




ACM4520-421-2P







• All specifications are subject to change without notice.

Common Mode Filters For Power Line

ACM Series ACM7060, 9070, 1211, 1513

FEATURES

- A chip-type common mode filter for large current applications. Common mode impedance surpasses 300 to 1000Ω at 100MHz. Noise is greatly suppressed.
- Capable of handling the highest current (up to 10A) of any chiptype common mode filter.
- Height and size have been considered, resulting in a compact and light-weight choke coil. Applicable for the miniaturization required to reduce the size and weight of portable equipment.
- The products contain no lead and also support lead-free soldering.
- This product does not contain regulated substances that are slated to be included in RoHS.

APPLICATIONS

Used for power line noise suppression for any electronic devices Used to counter adapter/battery line noise for relatively large electronic devices such as notebook PCs, stand-alone word processors, etc

TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

| Packaging style | Туре | Reel | Quantity |
|-----------------|---------|--------|------------------|
| | ACM7060 | ø330mm | 1500 pieces/reel |
| Taning | ACM9070 | ø330mm | 800 pieces/reel |
| Taping | ACM1211 | ø330mm | 500 pieces/reel |
| | ACM1513 | ø330mm | 500 pieces/reel |

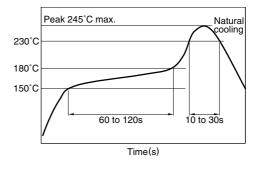
PRODUCT IDENTIFICATION

| ACM | 7060 - | 701 | - 2PL | - TL | |
|-----|--------|-----|-------|------|-----|
| (1) | (2) | (3) | (4) | (5) | (6) |

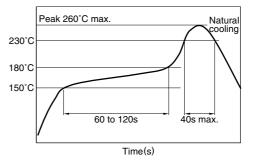
(1) Series

- (2) Dimensions L×W 7060: 7.0×6.0mm
- (3) Impedance[at 100MHz] 701: 700Ω
- (4) Number of lines 2PL: 2-line
- (5) Packaging styleT: ø180mm reel tapingTL: ø330mm reel taping
- (6) TDK internal code

RECOMMENDED SOLDERING CONDITIONS RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



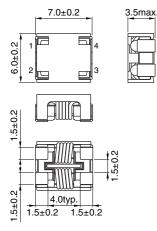
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

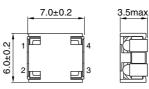
• All specifications are subject to change without notice.

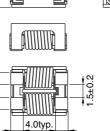
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN(REFLOW SOLDERING) ACM7060 TYPE

ACM7060-301-2PL-TL01







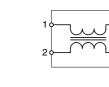


1.5±0.2

1.5±0.2

1.5±0.2

1.5±0.2



Weight: 0.35g

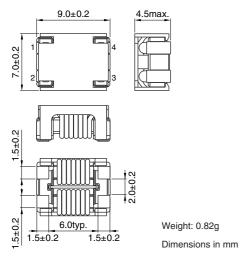
Dimensions in mm

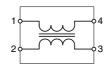


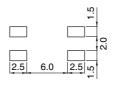
Dimensions in mm



ACM9070-701-2PL-TL01







Dimensions in mm

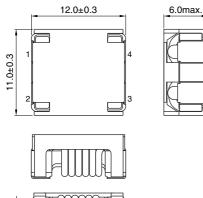


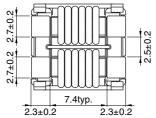


(6/7)

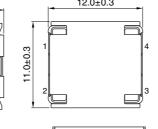
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN(REFLOW SOLDERING) ACM1211 TYPE

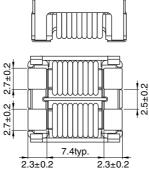
ACM1211-701-2PL-TL01

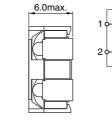




ACM1211-102-2PL-TL01

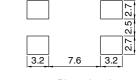






Weight: 2.20g

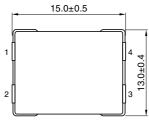
Dimensions in mm

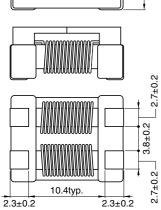


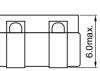
Dimensions in mm

1

ACM1513 TYPE

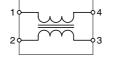






Weight: 3.15g

Dimensions in mm





Dimensions in mm

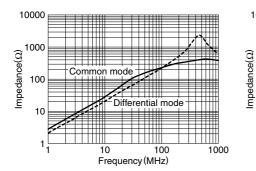


(7/7)

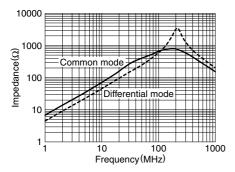
ELECTRICAL CHARACTERISTICS

| Part No. | Impedance (Ω)[at 100MHz] | | DC resistance —— (mΩ)max. | Rated current Idc(A)max. | Insulation resistance $(M\Omega)$ min. | Rated voltage Edc(V)max. |
|----------------------|-----------------------------|------|------------------------------|--------------------------|--|-----------------------------|
| | min. | typ. | (IIIs2)IIIdx. | IUC(A)Max. | (11122)111111. | |
| ACM7060-301-2PL-TL01 | 225 | 300 | 10 | 5 | 10 | 80 |
| ACM7060-701-2PL-TL01 | 500 | 700 | 15 | 4 | 10 | 80 |
| ACM9070-701-2PL-TL01 | 500 | 700 | 10 | 5 | 10 | 80 |
| ACM1211-701-2PL-TL01 | 500 | 700 | 6 | 8 | 10 | 80 |
| ACM1211-102-2PL-TL01 | 750 | 1000 | 14 | 6 | 10 | 80 |
| ACM1513-551-2PL-TLHF | 450 | 550 | 4 | 10 | 10 | 50 |

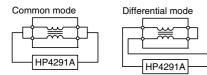
TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS ACM7060-301-2PL-TL01 ACM7060-701-2PL-TL01



ACM1211-701-2PL-TL01



MEASURING CIRCUITS



ACM1211-102-2PL-TL01

Common mode

111

10

Differential mode

Frequency (MHz)

100

1000

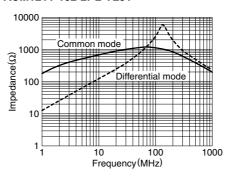
10000

1000

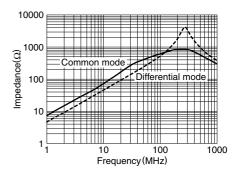
100

10

1 L 1



ACM9070-701-2PL-TL01



ACM1513-551-2PL-TLHF

