

## EMC Components

### 3-Terminal Filters for DC Power Line SMD

### ACH Series ACH3218, 4518 Types

#### FEATURES

- These T-type EMC filters comprise ferrite beads and chip capacitors and are engineered to handle high current levels.
- They provide highly effective EMC suppression.
- Because their structures are almost entirely ferrite, they exhibit excellent attenuation characteristics.
- Available for reflow soldering.
- It is a product conforming to RoHS directive.

#### PRODUCT IDENTIFICATION

|     |      |       |
|-----|------|-------|
| ACH | 3218 | - 223 |
| (1) | (2)  | (3)   |

- (1) Series name  
(2) Dimensions  
(3) Capacitance

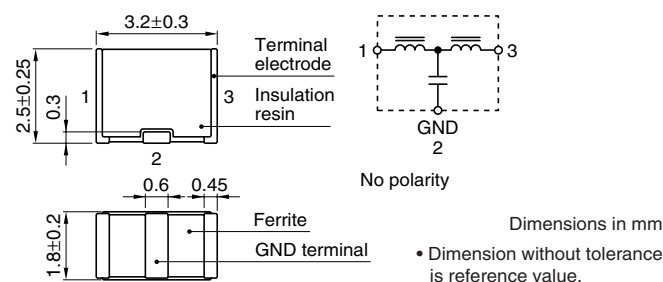
#### TEMPERATURE RANGES

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

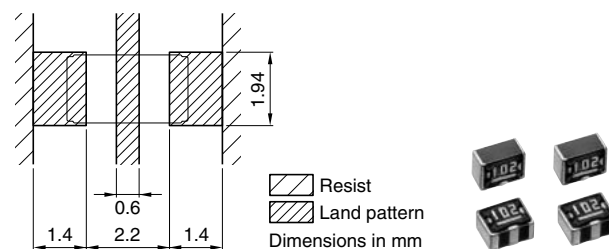
#### PACKAGING STYLE AND QUANTITIES

|                 |                  |
|-----------------|------------------|
| Packaging style | Quantity         |
| Taping          | 1000 pieces/reel |

#### ACH3218 TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



#### RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING



#### ELECTRICAL CHARACTERISTICS

| Part No.    | Maximum attenuation frequency (MHz) | 25dB attenuation frequency range (MHz) | Rated voltage E <sub>dc</sub> (V)max. | Rated current (A)max. | DC resistance (Ω)max. [Terminal No.1 to 3] | Insulation resistance (MΩ)min. [Terminal No.1 to 2/No.2 to 3] |
|-------------|-------------------------------------|----------------------------------------|---------------------------------------|-----------------------|--------------------------------------------|---------------------------------------------------------------|
| ACH3218-223 | 17                                  | 11 to 55                               | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-103 | 27                                  | 17 to 60                               | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-682 | 37                                  | 22 to 75                               | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-472 | 45                                  | 30 to 85                               | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-332 | 55                                  | 37 to 90                               | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-222 | 65                                  | 45 to 105                              | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-152 | 80                                  | 60 to 115                              | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-102 | 100                                 | 80 to 140                              | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-681 | 120                                 | 95 to 150                              | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-471 | 145                                 | 120 to 180                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-331 | 165                                 | 130 to 210                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-221 | 200                                 | 170 to 250                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-151 | 240                                 | 205 to 280                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-101 | 300                                 | 265 to 340                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-680 | 370                                 | 340 to 420                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-470 | 450                                 | 420 to 500                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-330 | 530                                 | 500 to 600                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |
| ACH3218-220 | 650                                 | 600 to 700                             | 20                                    | 1.5                   | 0.06                                       | 1000                                                          |

- 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.

- Please contact our Sales office when your application are considered the following:  
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

- All specifications are subject to change without notice.

## EMC Components

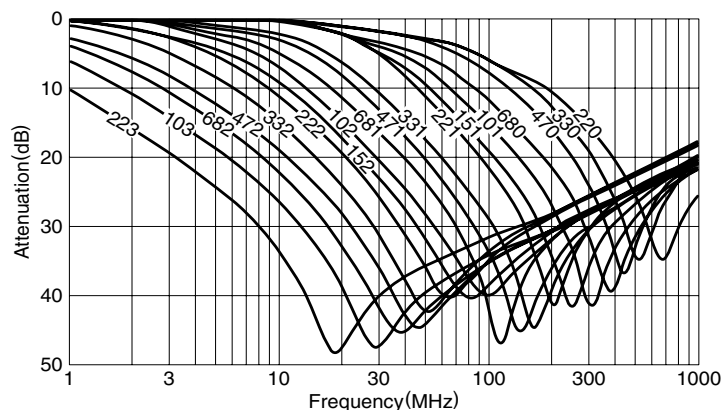
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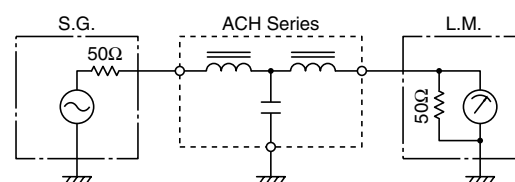
#### ACH3218 TYPE

##### TYPICAL ELECTRICAL CHARACTERISTICS

##### ATTENUATION vs. FREQUENCY CHARACTERISTICS

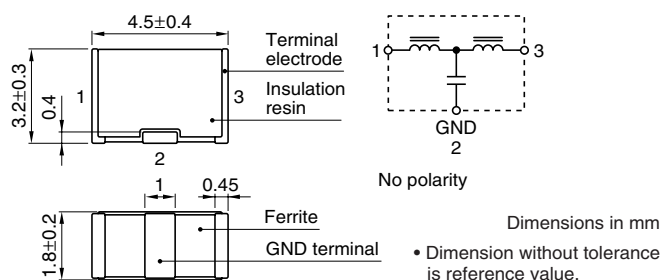


##### MEASURING CIRCUIT

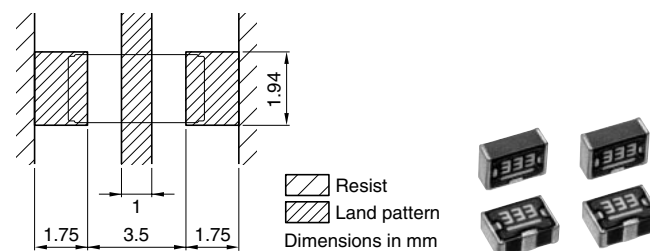


#### ACH4518 TYPE

##### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



##### RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING



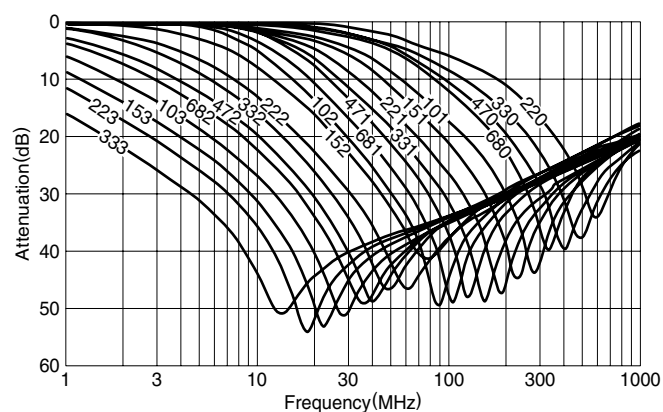
##### ELECTRICAL CHARACTERISTICS

| Part No.    | Maximum attenuation frequency (MHz) | 25dB attenuation frequency range (MHz) | Rated voltage E <sub>dc</sub> (V)max. | Rated current (A)max. | DC resistance (Ω)max. [Terminal No.1 to 3] | Insulation resistance (MΩ)min. [Terminal No.1 to 2/No.2 to 3] |
|-------------|-------------------------------------|----------------------------------------|---------------------------------------|-----------------------|--------------------------------------------|---------------------------------------------------------------|
| ACH4518-333 | 12                                  | 6 to 60                                | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-223 | 15                                  | 9 to 65                                | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-153 | 18                                  | 11 to 70                               | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-103 | 23                                  | 15 to 75                               | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-682 | 35                                  | 20 to 85                               | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-472 | 40                                  | 25 to 90                               | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-332 | 50                                  | 35 to 100                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-222 | 60                                  | 40 to 110                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-152 | 75                                  | 50 to 130                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-102 | 90                                  | 65 to 150                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-681 | 105                                 | 75 to 160                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-471 | 125                                 | 95 to 180                              | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-331 | 150                                 | 115 to 205                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-221 | 190                                 | 150 to 250                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-151 | 230                                 | 190 to 290                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-101 | 280                                 | 235 to 335                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-680 | 340                                 | 290 to 395                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-470 | 410                                 | 360 to 460                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-330 | 500                                 | 450 to 550                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |
| ACH4518-220 | 600                                 | 530 to 650                             | 50                                    | 2                     | 0.04                                       | 1000                                                          |

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## ACH4518 TYPE

## ATTENUATION vs. FREQUENCY CHARACTERISTICS



## MEASURING CIRCUIT

