

3-terminal Filters

For Signal Line

Conformity to RoHS Directive

ACF Series ACF321825, ACF451832

FEATURES

- The ACF series consists of products with superior attenuation characteristics, in which the T-type filter circuit is magnetically shielded with ferrite.
- The series offers even greater attenuation characteristics when used in a stable circuit on the ground.
- The ACF series is ideal for high-density circuit design, since the series is vertically mounted and does not require much mounting space.
- Available for reflow soldering.
- It is a product conforming to RoHS directive.

PRODUCT IDENTIFICATION

| | | | | | | |
|-----|--------|-----|-----|-----|---|-----|
| ACF | 321825 | - | 223 | - | T | D□□ |
| (1) | (2) | (3) | (4) | (5) | | |

- (1) Series name
 (2) Dimensions
 (3) Type
 (4) Packaging style
 (5) TDK internal code

TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

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

HANDLING AND PRECAUTIONS

- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- The inductance value may change due to magnetic saturation if the current exceeds the rated maximum.
- Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.

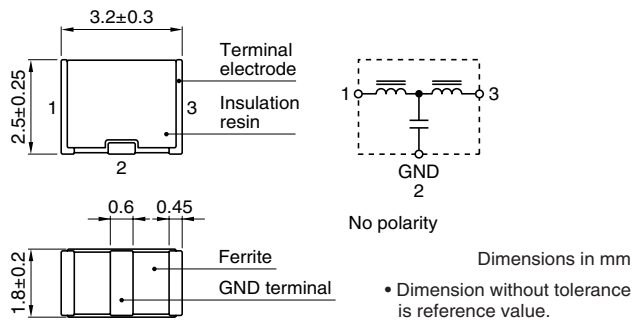
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• Please contact our Sales office when your application is 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.)

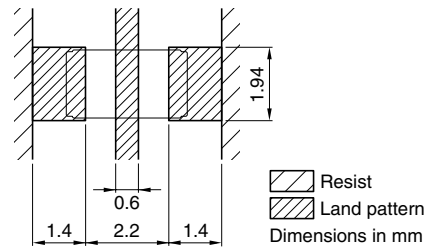
• All specifications are subject to change without notice.

ACF321825 TYPE

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING

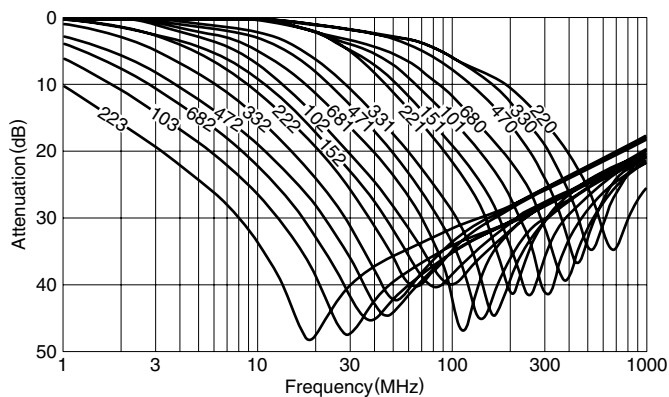


ELECTRICAL CHARACTERISTICS

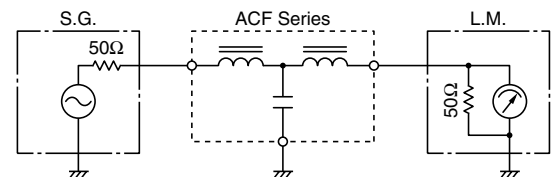
| Part No. | 25dB attenuation frequency range (MHz) | Rated voltage E _{dc} (V)max. | Rated current (mA)max. | DC resistance (Ω)max. [Terminal No.1 to 3] | Insulation resistance (MΩ)min. [Terminal No.1 to 2/No.2 to 3] |
|---------------|--|--|---------------------------|--|---|
| ACF321825-223 | 11 to 55 | 20 | 300 | 0.15 | 1000 |
| ACF321825-103 | 17 to 60 | 20 | 300 | 0.15 | 1000 |
| ACF321825-682 | 22 to 75 | 20 | 300 | 0.15 | 1000 |
| ACF321825-472 | 30 to 85 | 20 | 300 | 0.15 | 1000 |
| ACF321825-332 | 37 to 90 | 20 | 300 | 0.15 | 1000 |
| ACF321825-222 | 45 to 105 | 20 | 300 | 0.15 | 1000 |
| ACF321825-152 | 60 to 115 | 20 | 300 | 0.15 | 1000 |
| ACF321825-102 | 80 to 140 | 20 | 300 | 0.15 | 1000 |
| ACF321825-681 | 95 to 150 | 20 | 300 | 0.15 | 1000 |
| ACF321825-471 | 120 to 180 | 20 | 300 | 0.15 | 1000 |
| ACF321825-331 | 130 to 210 | 20 | 300 | 0.15 | 1000 |
| ACF321825-221 | 170 to 250 | 20 | 300 | 0.15 | 1000 |
| ACF321825-151 | 205 to 280 | 20 | 300 | 0.15 | 1000 |
| ACF321825-101 | 265 to 340 | 20 | 300 | 0.15 | 1000 |
| ACF321825-680 | 340 to 420 | 20 | 300 | 0.15 | 1000 |
| ACF321825-470 | 420 to 500 | 20 | 300 | 0.15 | 1000 |
| ACF321825-330 | 500 to 600 | 20 | 300 | 0.15 | 1000 |
| ACF321825-220 | 600 to 700 | 20 | 300 | 0.15 | 1000 |

TYPICAL ELECTRICAL CHARACTERISTICS

ATTENUATION vs. FREQUENCY CHARACTERISTICS

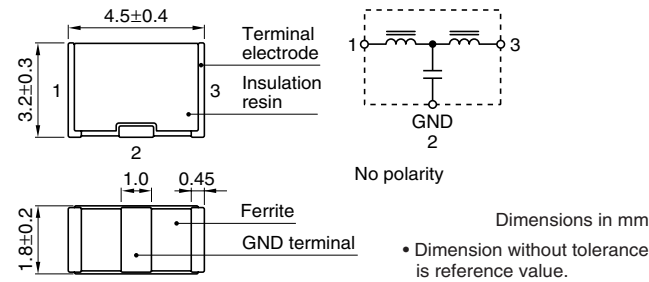


MEASURING CIRCUIT

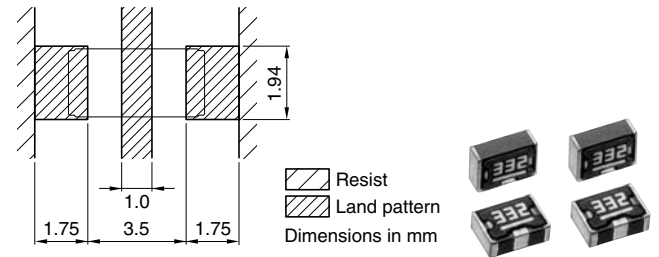


ACF451832 TYPE

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING

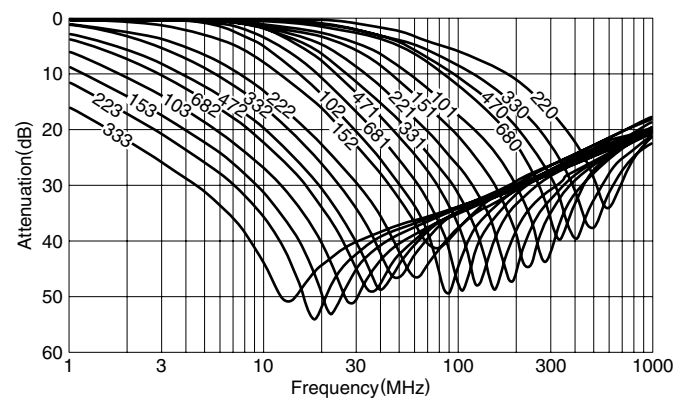


ELECTRICAL CHARACTERISTICS

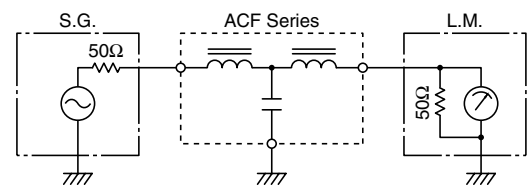
| Part No. | 25dB attenuation frequency range (MHz) | Rated voltage E _{dc} (V)max. | Rated current (mA)max. | DC resistance (Ω)max. [Terminal No.1 to 3] | Insulation resistance (MΩ)min. [Terminal No.1 to 2/No.2 to 3] |
|---------------|--|---------------------------------------|------------------------|---|--|
| ACF451832-333 | 7 to 60 | 50 | 300 | 0.15 | 1000 |
| ACF451832-223 | 9 to 65 | 50 | 300 | 0.15 | 1000 |
| ACF451832-153 | 11 to 70 | 50 | 300 | 0.15 | 1000 |
| ACF451832-103 | 15 to 75 | 50 | 300 | 0.15 | 1000 |
| ACF451832-682 | 20 to 85 | 50 | 300 | 0.15 | 1000 |
| ACF451832-472 | 25 to 90 | 50 | 300 | 0.15 | 1000 |
| ACF451832-332 | 35 to 100 | 50 | 300 | 0.15 | 1000 |
| ACF451832-222 | 40 to 110 | 50 | 300 | 0.15 | 1000 |
| ACF451832-152 | 50 to 130 | 50 | 300 | 0.15 | 1000 |
| ACF451832-102 | 65 to 150 | 50 | 300 | 0.15 | 1000 |
| ACF451832-681 | 75 to 160 | 50 | 300 | 0.15 | 1000 |
| ACF451832-471 | 95 to 180 | 50 | 300 | 0.15 | 1000 |
| ACF451832-331 | 115 to 205 | 50 | 300 | 0.15 | 1000 |
| ACF451832-221 | 150 to 250 | 50 | 300 | 0.15 | 1000 |
| ACF451832-151 | 190 to 290 | 50 | 300 | 0.15 | 1000 |
| ACF451832-101 | 235 to 335 | 50 | 300 | 0.15 | 1000 |
| ACF451832-680 | 295 to 395 | 50 | 300 | 0.15 | 1000 |
| ACF451832-470 | 360 to 460 | 50 | 300 | 0.15 | 1000 |
| ACF451832-330 | 450 to 550 | 50 | 300 | 0.15 | 1000 |
| ACF451832-220 | 550 to 650 | 50 | 300 | 0.15 | 1000 |

TYPICAL ELECTRICAL CHARACTERISTICS

ATTENUATION vs. FREQUENCY CHARACTERISTICS

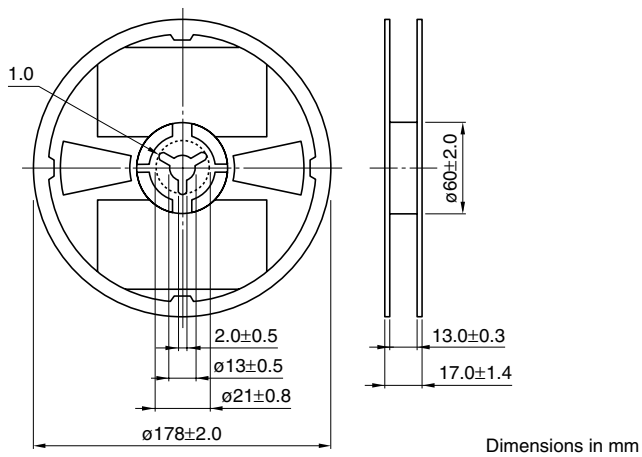


MEASURING CIRCUIT

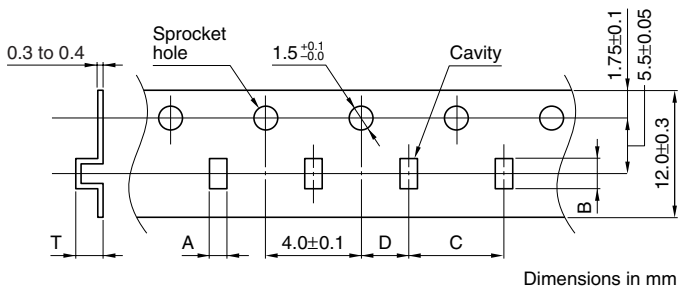


PACKAGING STYLES

REEL DIMENSIONS



TAPE DIMENSIONS



| Type | A | B | C | D | T |
|--------|---------------|---------------|---------------|----------------|---------|
| 321825 | 2.2 ± 0.2 | 3.7 ± 0.2 | 4.0 ± 0.1 | 2.0 ± 0.05 | 3.3max. |
| 451832 | 2.2 ± 0.2 | 5.2 ± 0.2 | 4.0 ± 0.1 | 2.0 ± 0.05 | 3.8max. |

