



3-terminal Filters, SMD Array

For high-speed signal line (cellular band compatible)

MEA-D Series

MEA1210D Type

MEA1210D 1210[0504 inch]*

* Dimensions Code JIS[EIA]

Caution

The products in this catalog will be or have been stopped production

| | |
|--------------------------|---------------|
| Discontinue Issue Date | May 18, 2017 |
| Last Purchase Order Date | Mar. 29, 2019 |
| Last Shipment Date | Sep. 30, 2019 |

Please refer to our Web site about replacement information.

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

REMINDERS

- The storage period is less than 12 months. Be sure to follow the storage conditions (Temperature: 5 to 40°C, Humidity: 10 to 75% RH or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

3-terminal Filters, SMD Array

For high-speed signal line (cellular band compatible)

Product compatible with RoHS directive
Halogen-free
Compatible with lead-free solders

Overview of MEA1210D Type

FEATURES

- Single chip for 2-line filters, and compatible with high-density mounting.
- Compact with a low profile design.
- Effective as a desensitization countermeasure in information transmission terminals such as smart phones.
- Can be used for signal lines of mobile device displays.
- Low strain to signal waveforms after passing the filter.

APPLICATION

Noise removal from signal lines of smart phones, digital cameras, PCs, game machines, flat TVs, etc.

PART NUMBER CONSTRUCTION

| MEA | 1210 | D | 301R | T | 001 | | |
|-------------|-----------------------|-------------|-----------------------|------------------------|------------|-----------------|---------------|
| Series name | LxWxT Dimensions (mm) | | Product internal code | Cutoff frequency (MHz) | | Packaging style | Internal code |
| | 1210 | 1.2x1.0x0.5 | D | 301R 501R | 300 500 | T Taping | |

OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

| Type | Temperature range | | Package quantity | Individual weight |
|----------|----------------------------|---------------------------|------------------|-------------------|
| | Operating temperature (°C) | Storage temperature* (°C) | (pieces/reel) | (mg) |
| MEA1210D | -40 to +85 | -40 to +85 | 4,000 | 3 |

* The Storage temperature range is for after the circuit board is mounted.

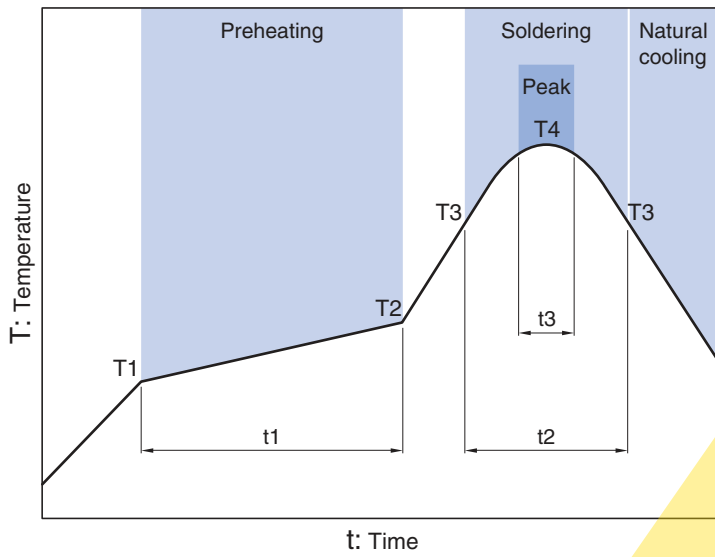
○ RoHS Directive Compliant Product: See the following for more details. <https://product.tdk.com/info/en/environment/rohs/index.html>

○ Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

MEA1210D Type

RECOMMENDED REFLOW PROFILE

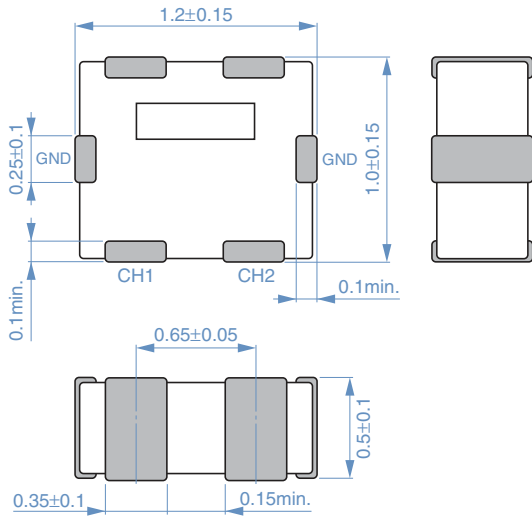


| Preheating | | | Soldering | | Peak | |
|------------|-------|------------|-----------|-----------|--------------|----------|
| Temp. | | Time | Temp. | Time | Temp. | Time |
| T1 | T2 | t1 | T3 | t2 | T4 | t3 |
| 150°C | 180°C | 60 to 120s | 230°C | 30 to 60s | 250 to 260°C | 10s max. |

The products will be or have been stopped production

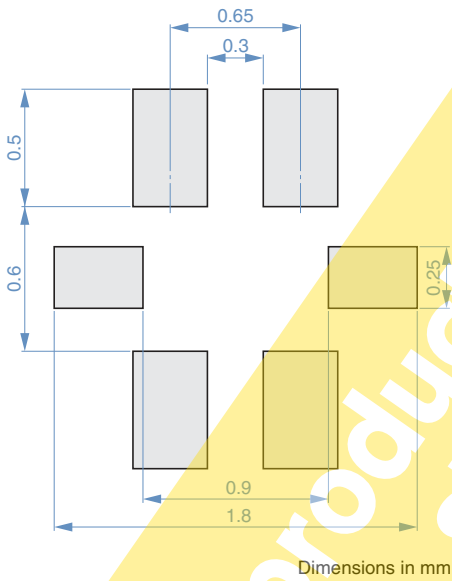
MEA1210D Type

SHAPE & DIMENSIONS



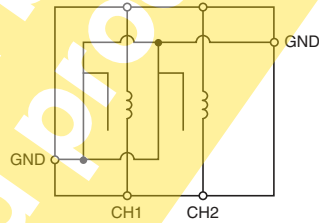
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

CIRCUIT DIAGRAM



The products will be or have been stopped for production

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

MEA1210D Type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

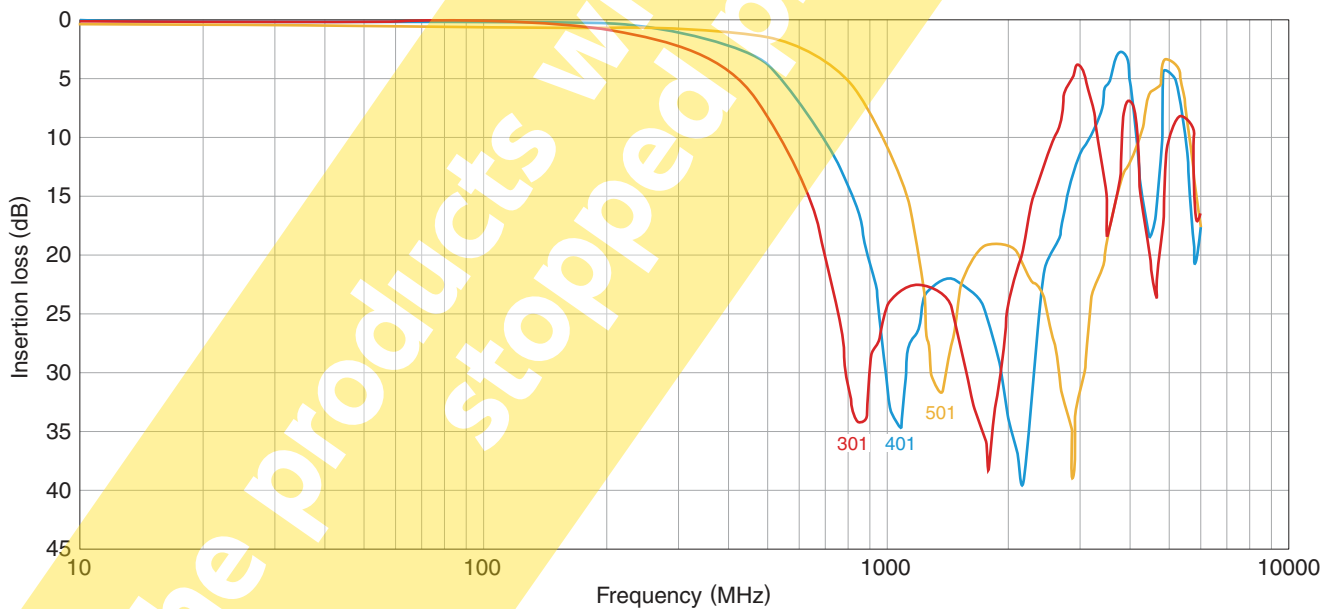
| Cutoff frequency (MHz)typ. | Insertion loss 20dB frequency range (MHz) | Rated voltage (V)max. | Rated current (mA)max. | Part No. |
|-------------------------------|---|--------------------------|---------------------------|------------------|
| 300 | 700 to 2000 | 10 | 100 | MEA1210D301RT001 |
| 400 | 900 to 2000 | 10 | 100 | MEA1210D401RT001 |
| 500 | 1500 to 3000 | 10 | 100 | MEA1210D501RT001 |

Measurement equipment

| Measurement item | Product No. | Manufacturer |
|---------------------------|-------------|-----------------------|
| Frequency characteristics | N5230C | Keysight Technologies |

* Equivalent measurement equipment may be used.

INSERTION LOSS VS. FREQUENCY CHARACTERISTICS



Measurement equipment

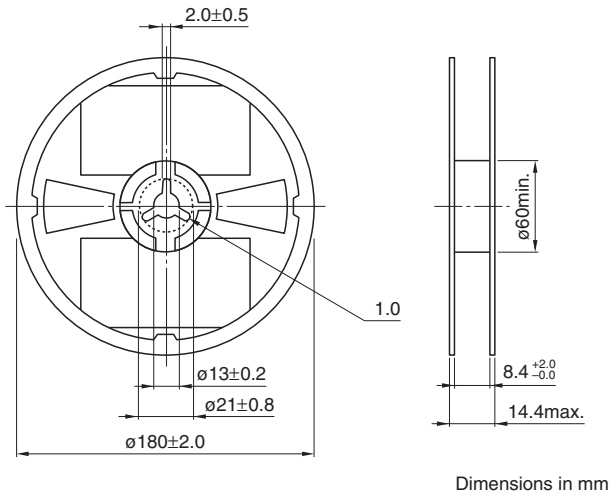
| Product No. | Manufacturer |
|-------------|-----------------------|
| N5230C | Keysight Technologies |

* Equivalent measurement equipment may be used.

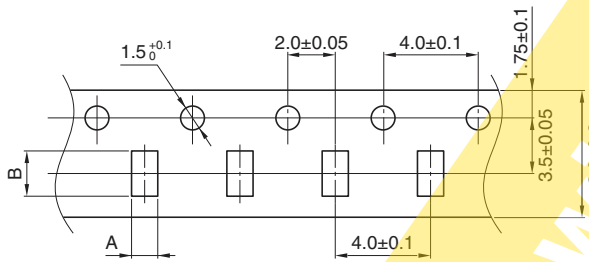
MEA1210D Type

PACKAGING STYLE

REEL DIMENSIONS



TAPE DIMENSIONS



| Type | A | B | K |
|----------|-----------|-----------|----------|
| MEA1210D | 1.20±0.05 | 1.45±0.05 | 0.73max. |

