

# Multilayer Band Pass Filter

For 2412-2484MHz

# DEA202450BT-1294C1-H

2.0x1.25mm [EIA 0805]\*

\* Dimensions Code JIS[EIA]



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

| Discontinue Issue Date   | Jun. 3, 2022  |  |
|--------------------------|---------------|--|
| Last Purchase Order Date | Mar. 31, 2023 |  |
| Last Shipment Date       | Mar. 31, 2024 |  |

Please refer to our Web site about replacement information.



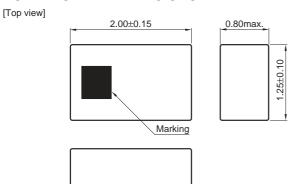
## **Multilayer Band Pass Filter**

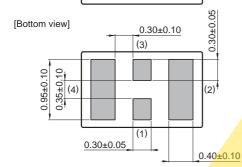
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#### **Conformity to RoHS Directive**

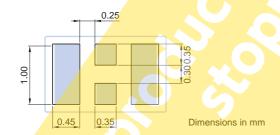
#### SHAPES AND DIMENSIONS



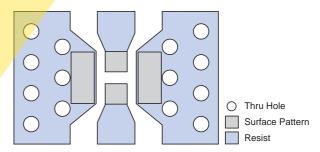


| Terminal functions |              |  |  |  |
|--------------------|--------------|--|--|--|
| 1                  | In           |  |  |  |
| 2 3                | GND          |  |  |  |
| 3                  | Out          |  |  |  |
| 4                  | GND          |  |  |  |
| ima                | nsions in mm |  |  |  |

#### RECOMMENDED LAND PATTERN



#### **EVALUATION BOARD**



| Material & Layer       | Thickness |  |  |
|------------------------|-----------|--|--|
| Top resist             | -         |  |  |
| Copper surface pattern | 0.035mm   |  |  |
| FR4                    | 0.10mm    |  |  |
| Inner GND              | 0.018mm   |  |  |
| FR4                    | 0.30mm    |  |  |
| Copper bottom GND      | 0.035mm   |  |  |

Line width should be designed to match  $50\Omega$  characteristic impedance, depending on PCB material and thickness.

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

- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.



## DEA202450BT-1294C1-H

#### **ELECTRICAL CHARACTERISTICS**

| Item                         | Frequency Range<br>(MHz) | Min. | Тур.         | Max. |
|------------------------------|--------------------------|------|--------------|------|
| Insertion Loss (dB)          | 2412 to 2484             | _    | 1.02         | 1.35 |
| Return Loss (dB)             | 2412 to 2484             | 10   | 22           | ~~~  |
|                              | 804 to 828               | 30   | 42           |      |
|                              | 1608 to 1656             | 20   | 23           | _    |
|                              | 3216 to 3312             | 30   | 49           | _    |
|                              | 4020 to 4140             | 40   | 52           | _    |
| Attenuation (dB)             | 4824 to 4968             | 20   | 30           | _    |
|                              | 5628 to 5796             | 20   | 27           | _    |
|                              | 6432 to 6624             | 20   | 42           | _    |
|                              | 7200 to 7500             | 35   | 44           | _    |
|                              | 7500 to 10000            | 20   | 30           | _    |
| Characteristic Impedance (Ω) |                          |      | 50 (Nominal) |      |

<sup>·</sup> Ta: +25±5°C

#### **■TEMPERATURE RANGE**

| Operating temperature | Storage temperature |  |
|-----------------------|---------------------|--|
| (°C)                  | (°C)                |  |
| -40 to +85            | -40 to +85          |  |



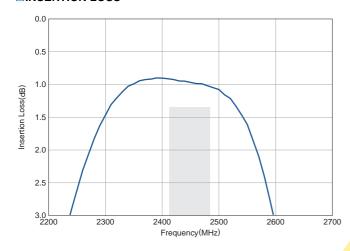
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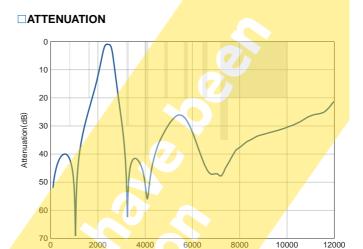


## DEA202450BT-1294C1-H

#### **■ FREQUENCY CHARACTERISTICS**

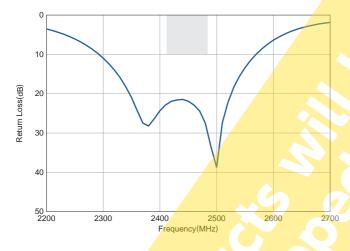
#### □INSERTION LOSS





Frequency(MHz)

#### □RETURN LOSS

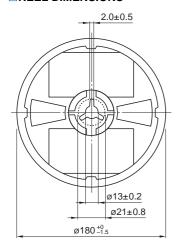


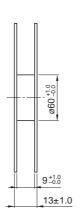
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#### **■PACKAGING STYLE**

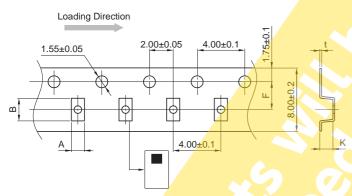
#### □REEL DIMENSIONS





Dimensions in mm

#### **TAPE DIMENSIONS**



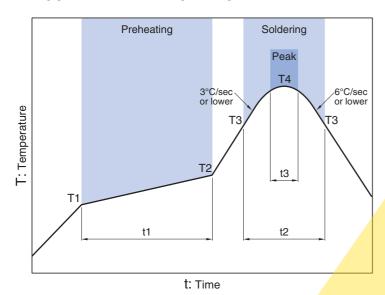
| Α        | В        | F         | t         | K         |
|----------|----------|-----------|-----------|-----------|
| 1.45±0.1 | 2.25±0.1 | 3.50±0.05 | 0.25±0.05 | 1.00±0.05 |

#### **■PACKAGE QUANTITY**

Standard package quantity
(pieces/reel)
2000

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#### ■ RECOMMENDED REFLOW PROFILE



| Preheating |       | Soldering                |       |             |                 |            |
|------------|-------|--------------------------|-------|-------------|-----------------|------------|
|            |       | Critical zone (T3 to T4) |       | Peak        |                 |            |
| Temp.      |       | Time                     | Temp. | Time        | Temp.           | Time       |
| T1         | T2    | t1                       | Т3    | t2          | T4              | t3*        |
| 150°C      | 200°C | 60 to 120sec             | 217°C | 60 to 120se | ec 240 to 260°C | 30sec max. |

\*t3: Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

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#### 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 products listed on this catalog are intended for use in general electronic 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.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this catalog.

- (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 using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/ equipment or providing backup circuits, etc., to ensure higher safety.

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