



April. 2017 Ver.3.1a
TDK Corporation

Multilayer Band Pass Filter

For LTE

DEA Series 2.0x1.25mm [EIA 0805] TYPE

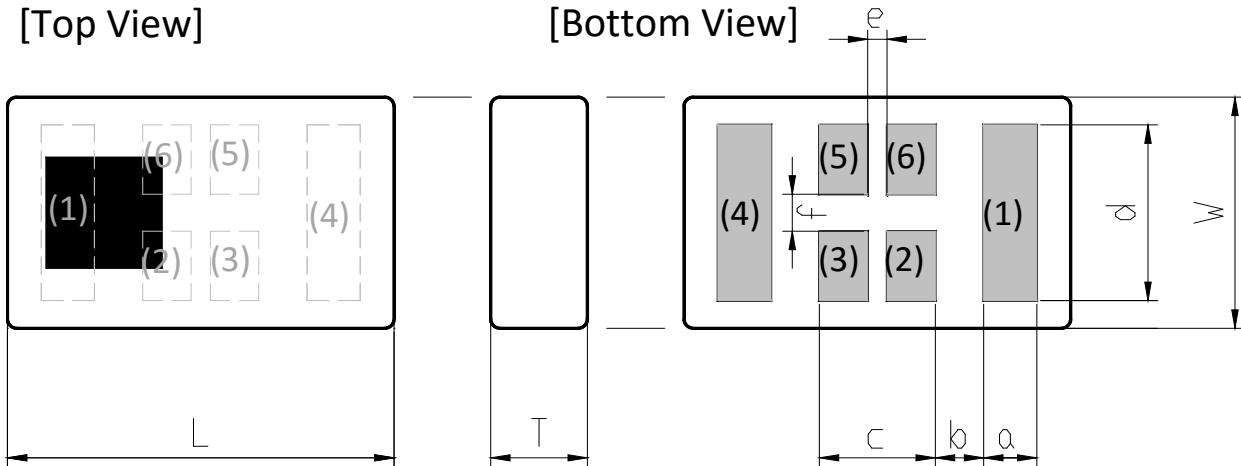
P/N: **DEA203500BT-2213A1-H**

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■ SHAPES AND DIMENSIONS

[Top View]

[Bottom View]



Dimensions (mm)

| L | W | T | a | b | c | d | e | f |
|---------|---------|------|---------|---------|---------|---------|---------|---------|
| 2.00 | 1.25 | 0.65 | 0.275 | 0.25 | 0.60 | 0.95 | 0.10 | 0.20 |
| +/-0.15 | +/-0.10 | Max | +/-0.10 | +/-0.10 | +/-0.10 | +/-0.15 | +/-0.05 | +/-0.05 |

Terminal functions

| | |
|-----|-------------------|
| (1) | Input/Output Port |
| (2) | GND |
| (3) | GND |

| | |
|-----|-------------------|
| (4) | Input/Output Port |
| (5) | GND |
| (6) | GND |

DC Cut

No. There is NOT a DC Cut between the IN & OUT & GND.

■ TEMPERATURE RANGE

■ TERMINATION FINISH

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

| |
|-----------------|
| Material |
| Ag |

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

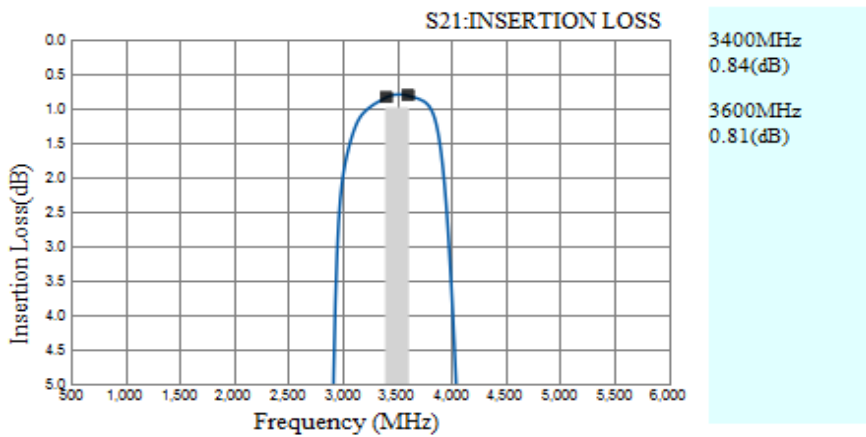
| Parameter | Frequency (MHz) | TDK Spec | | |
|--|-----------------|--------------|------|------|
| | | Min. | Typ. | Max. |
| Insertion Loss (dB) | 3400 to 3600 | - | 0.84 | 1.00 |
| | to | - | | |
| | to | - | | |
| Insertion Loss (dB) (-40 to +85 °C) | 3400 to 3600 | - | 0.94 | 1.10 |
| | to | - | | |
| | to | - | | |
| Return Loss (dB) | 3400 to 3600 | 10 | 22.2 | - |
| | to | | | - |
| | to | | | - |
| Attenuation (dB) | 500 to 2170 | 40 | 40.7 | - |
| | 880 to 960 | 40 | 43.6 | - |
| | 1710 to 1785 | 40 | 40.7 | - |
| | 2300 to 2700 | 32 | 34.5 | - |
| | 4400 | 6.1 | 19.2 | - |
| | 4800 to 4900 | 25 | 34.3 | - |
| | 4900 to 5150 | 30 | 38.7 | - |
| | 5150 to 5925 | 35 | 44.6 | - |
| | 6250 to 6550 | 40 | 45.2 | - |
| | 6800 to 7200 | 40 | 48.5 | - |
| | 7200 to 9000 | 35 | 50.1 | - |
| | 10200 to 10800 | 35 | 46.4 | - |
| Power Handling (W) | | - | - | 1 |
| Characteristic Impedance (ohm) | | 50 (Nominal) | | |

Ta = +25+/-5°C

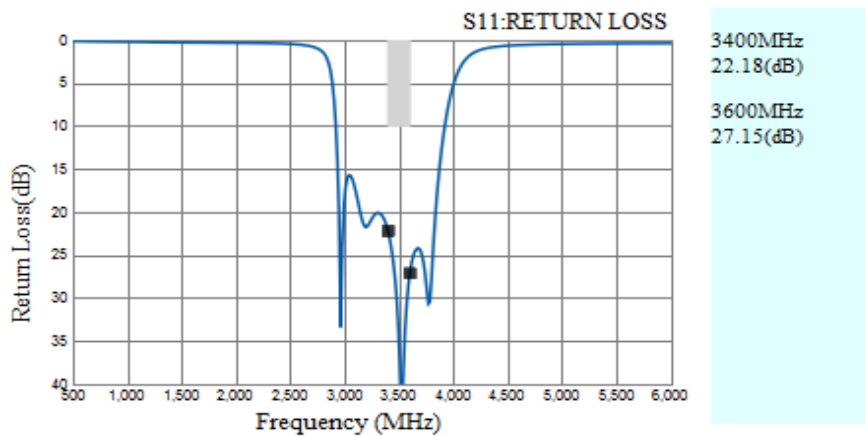
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FREQUENCY CHARACTERISTICS

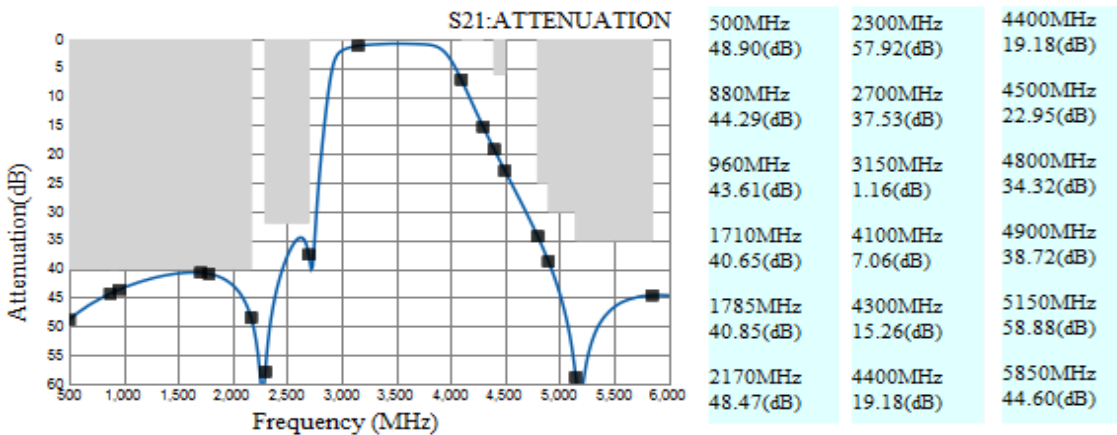
Insertion Loss



Return Loss



Attenuation

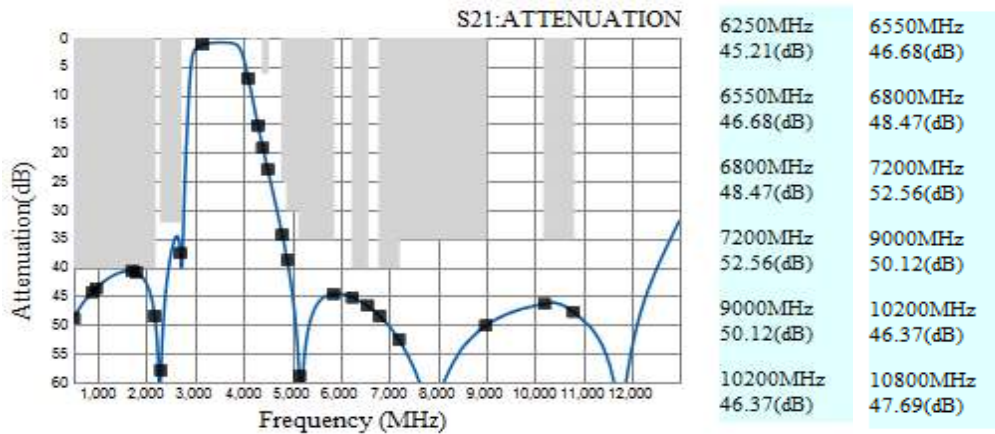


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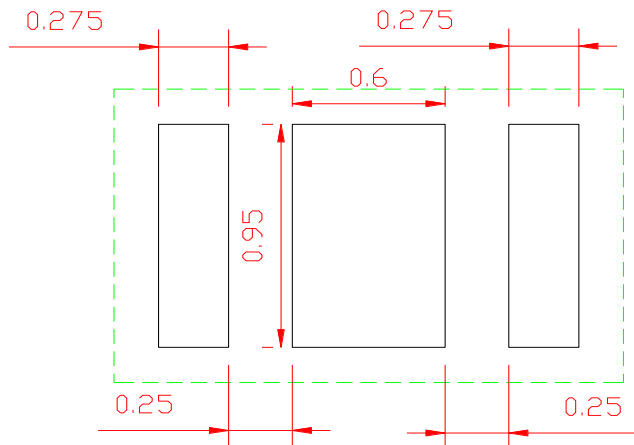
■ FREQUENCY CHARACTERISTICS

Attenuation



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■ RECOMMENDED LAND PATTERN

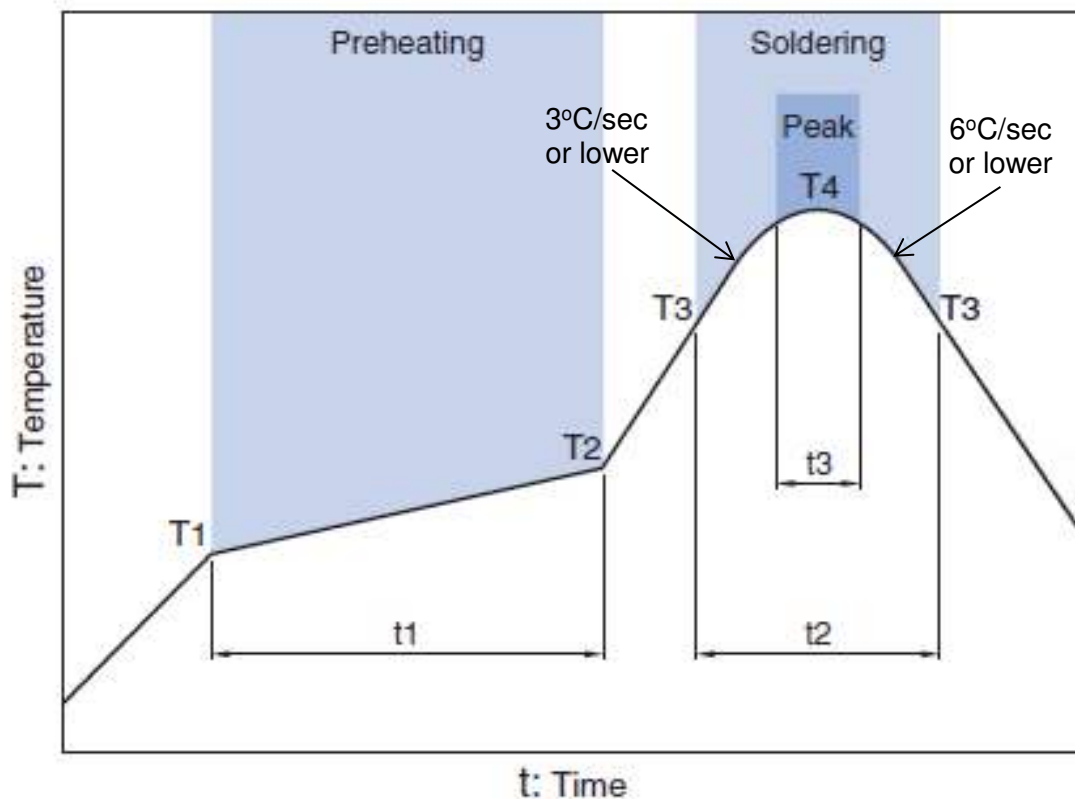


■ ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

TDK Corporation

RECOMMENDED REFLOW PROFILE



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

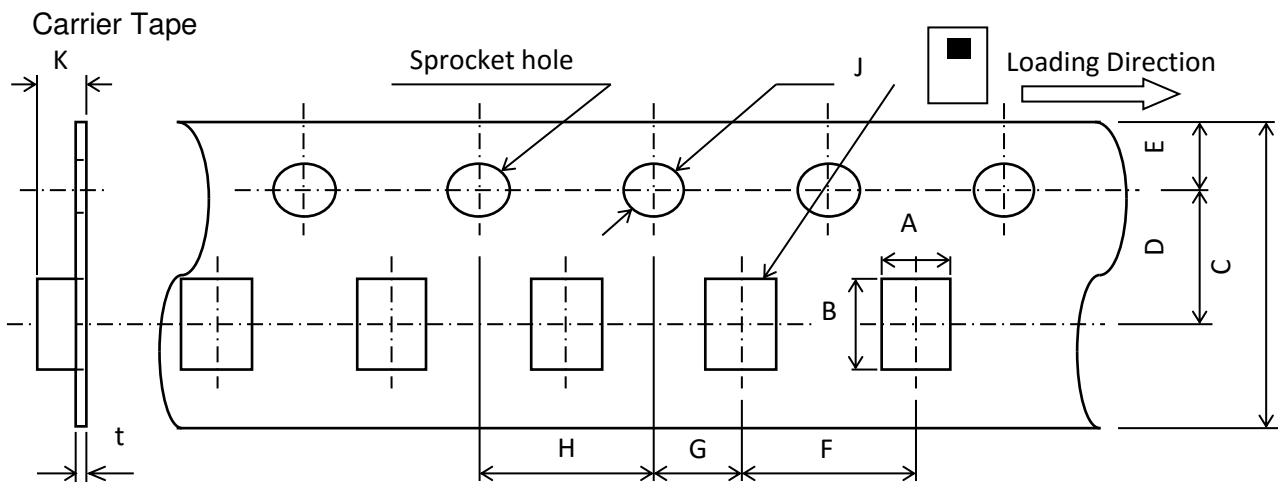
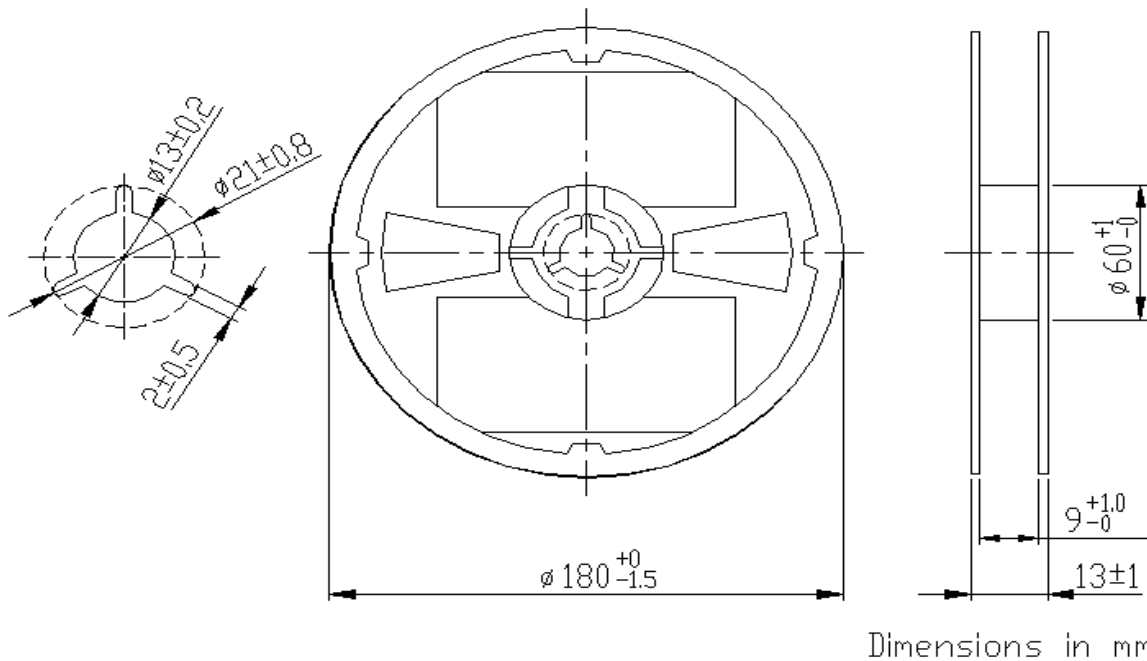
* t3 : Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

Note: Lead free solder is recommended.
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

DEA203500BT-2213A1-H**PACKAGING STYLE**

Reel Dimensions



Dimensions (mm)

| A | B | C | D | E | F | G | H | J | K | t |
|---------|---------|-----------|---------|--------|--------|---------|--------|---------|-----|---------|
| 1.45 | 2.2 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | 0.8 | 0.25 |
| +/-0.05 | +/-0.05 | +0.3/-0.1 | +/-0.05 | +/-0.1 | +/-0.1 | +/-0.05 | +/-0.1 | +0.1/-0 | MAX | +/-0.05 |

| STANDARD PACKAGE QUANTITY (pieces/reel) |
|--|
| 2,000 |

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 specification sheet 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. 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 specification sheet.

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.