TDK

June 2015

# Multilayer Band Pass Filter (Balance Output Type)

For 3400–3800MHz

# DEA203600BT-7127E3

**2.0x1.25mm [EIA 0805]***

*** Dimensions Code JIS[EIA]**

# Multilayer Band Pass Filter (Balance Output Type)

Conformity to RoHS Directive

## For 3400–3800MHz

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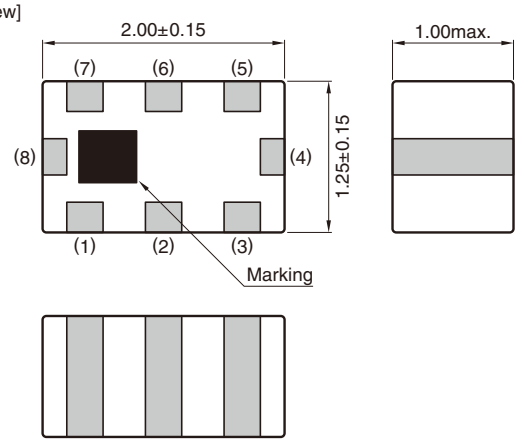
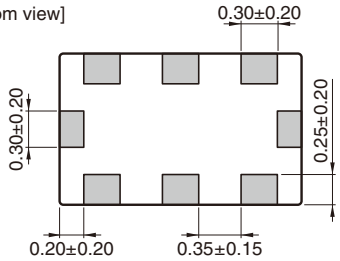
## SHAPES AND DIMENSIONS

[Top view]



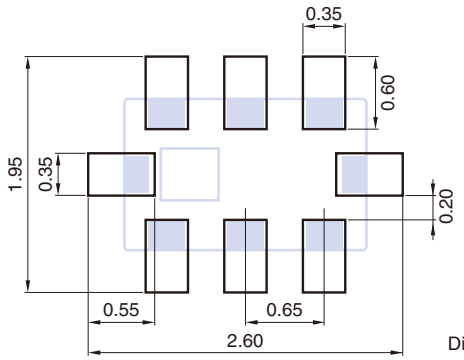

[Bottom view]




| Terminal functions | |
|---|---|
| 1 | Unbalanced port |
| 2 | N.C. |
| 3 | N.C. |
| 4 | GND |
| 5 | Balanced port |
| 6 | GND |
| 7 | Balanced port |
| 8 | GND |

Dimensions in mm

## RECOMMENDED LAND PATTERN




Dimensions in mm

○RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

# DEA203600BT-7127E3

## ELECTRICAL CHARACTERISTICS

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|---|---|---|---|---|
| Unbalanced Port Characteristic Impedance (Ω) | | — | 50 (Nominal) | — |
| Balanced Port Characteristic Impedance (Ω) | | — | 100 (Nominal) | — |
| Insertion Loss (dB) | 3400 to 3800 | — | 1.5 | 2.4 |
| Ripple (dB) | 3400 to 3800 | — | 0.1 | 2.0 |
| Attenuation (dB) | 500 to 800 | 15 | 52 | — |
| | 800 to 960 | 25 | 50 | — |
| | 1700 to 1900 | 27 | 45 | — |
| | 1900 to 1980 | 27 | 45 | — |
| | 2300 to 2690 | 15 | 29 | — |
| | 5150 to 5875 | 15 | 28 | — |
| Return Loss at Unbalanced Port (dB) | 3400 to 3800 | 9 | 12.6 | — |
| Phase Balance (deg.) | 3400 to 3800 | 160 | 181 | 200 |
| Amplitude Balance (dB) | 3400 to 3800 | — | 0.2 | 2.0 |

・Ta: +25±5°C

## TEMPERATURE RANGE

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

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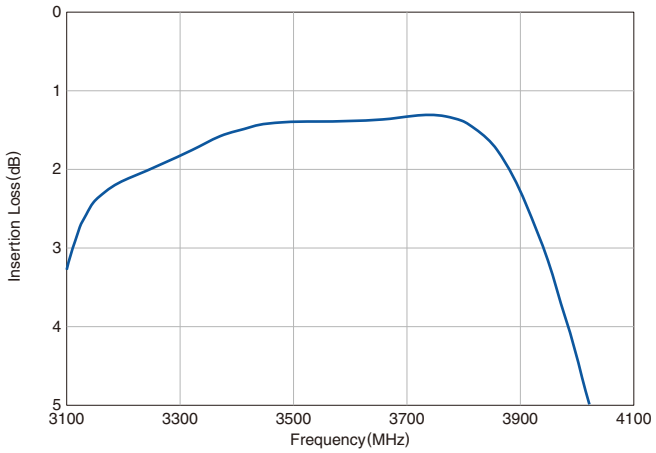
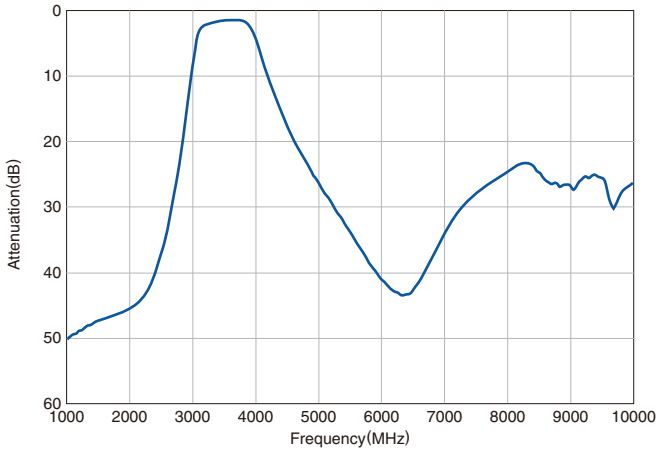
## ■FREQUENCY CHARACTERISTICS

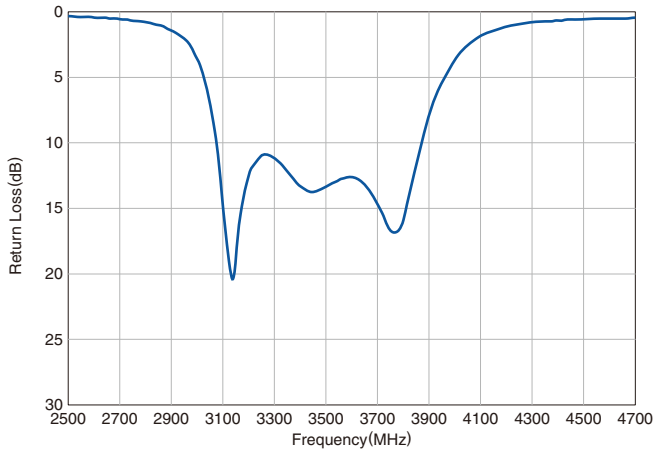
### □SDS21 INSERTION LOSS



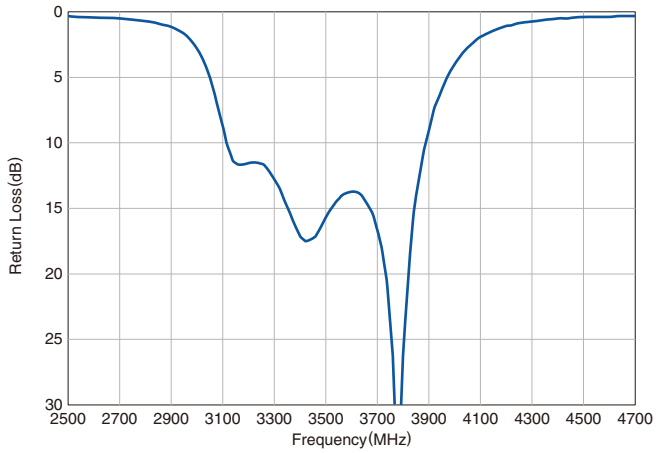

### □SDS21 ATTENUATION



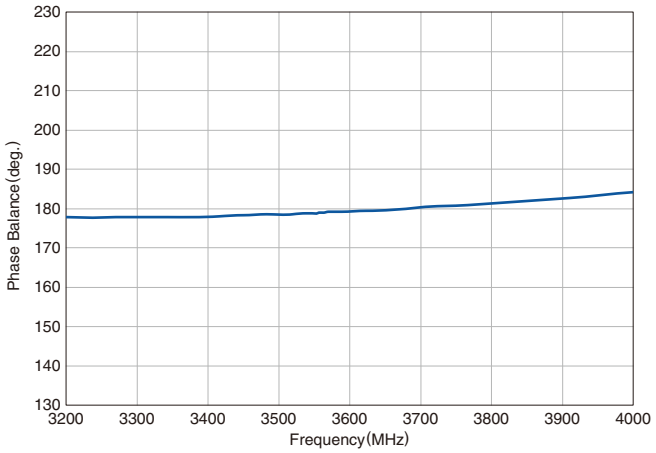

### □SSS11 RETURN LOSS at UNBALANCE PORT



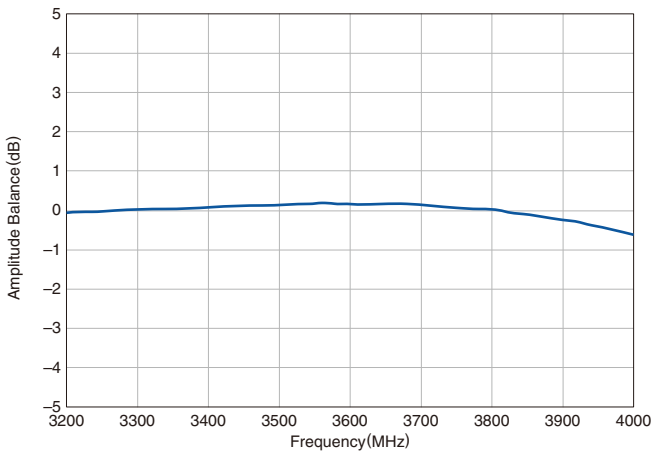

### □SDD22 RETURN LOSS at BALANCE PORT



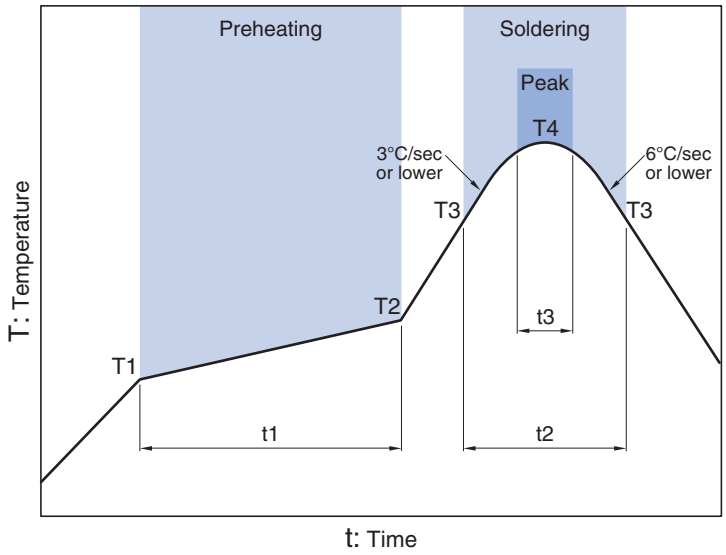

### □PHASE BALANCE




### □AMPLITUDE BALANCE



## RECOMMENDED REFLOW PROFILE




| Preheating | | | Soldering | | | |
|---|---|---|---|---|---|---|
| | | | Critical zone (T3 to T4) | | Peak | |
| 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 | 30sec max. |

* t3 : Time within 5°C of actual peak temperature
The maximum number of reflow is 3.

# 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 (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 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.