TDK

June 2015

Multilayer Band Pass Filter (Balance Output Type)

For 2400–2500MHz

DEA212450BT-7043C1

2.0x1.5mm

*** Dimensions Code JIS**

⚠ Caution

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

Discontinue Issue Date	May. 26, 2025
Last Purchase Order Date	Mar. 31, 2026
Last Shipment Date	Jun. 30, 2026

Please refer to our Web site about replacement information.

Multilayer Band Pass Filter (Balance Output Type)

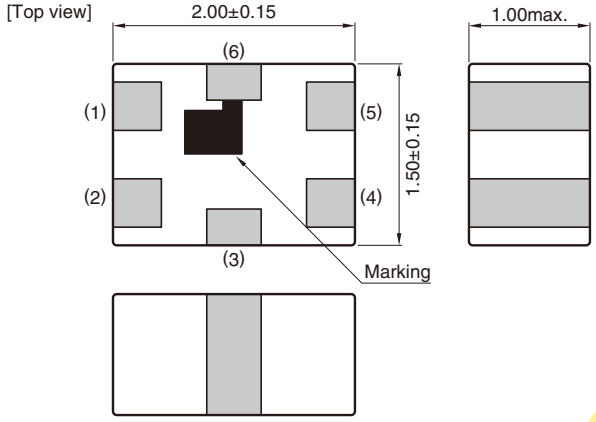
Conformity to RoHS Directive

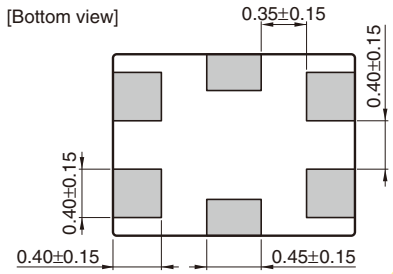
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SHAPES AND DIMENSIONS



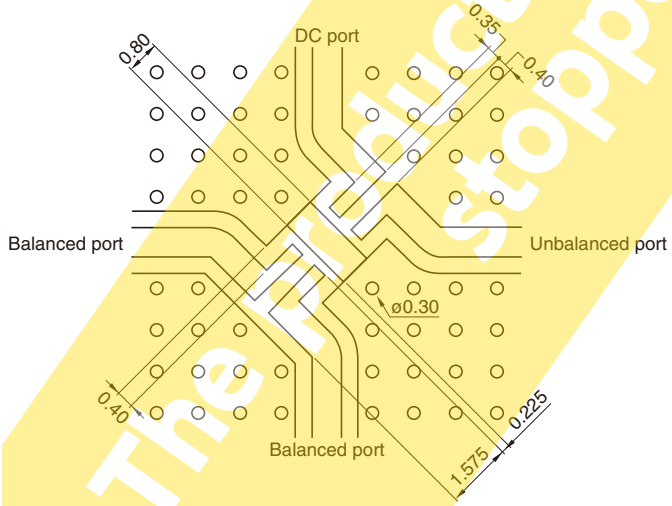


Terminal functions

1	Unbalanced port
2	Balanced port DC feed
3	GND
4	Balanced port
5	Balanced port
6	GND

Dimensions in mm

EVALUATION BOARD



Line width is designed to match 50Ω characteristic impedance depending on PCB material and thickness.

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/

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

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ELECTRICAL CHARACTERISTICS

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Unbalanced Port Characteristic Impedance (Ω)			50 (Nominal)	
Balanced Port Characteristic Impedance (Ω)			55+j50 (Nominal)	
Insertion Loss (dB)	2400 to 2500	—	3.4	3.6
	2400 to 2500	—	—	3.9 (–30 to +85°C)
Attenuation (dB)	DC to 915	34	40	—
	1570 to 1580	30	35	—
	1710 to 1850	28	33	—
	1850 to 1910	30	36	—
	1920 to 1990	27	35	—
	2110 to 2170	17	20	—
	4800 to 5000	15	18	—
Return Loss at Unbalanced Port (dB)	2400 to 2500	10	—	—
Return Loss at Balanced Port (dB)	2400 to 2500	10	—	—
Phase Balance (deg.)	2400 to 2500	170	175	190
Amplitude Balance (dB)	2400 to 2500	–2	0.8	2

・Ta: +25±5°C

TEMPERATURE RANGE

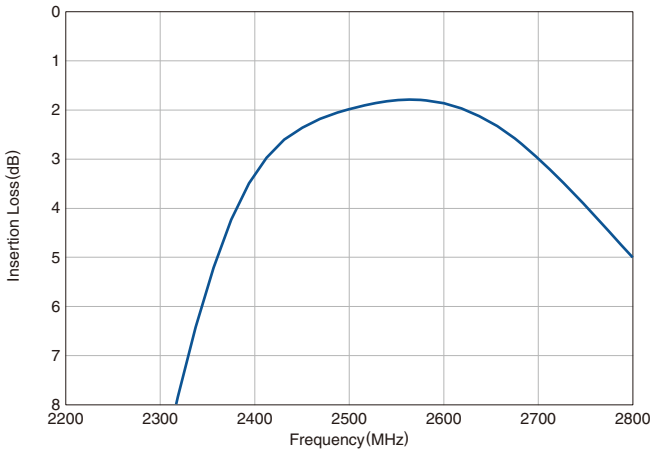
Operating temperature (°C)	Storage temperature (°C)
–30 to +85	–30 to +85

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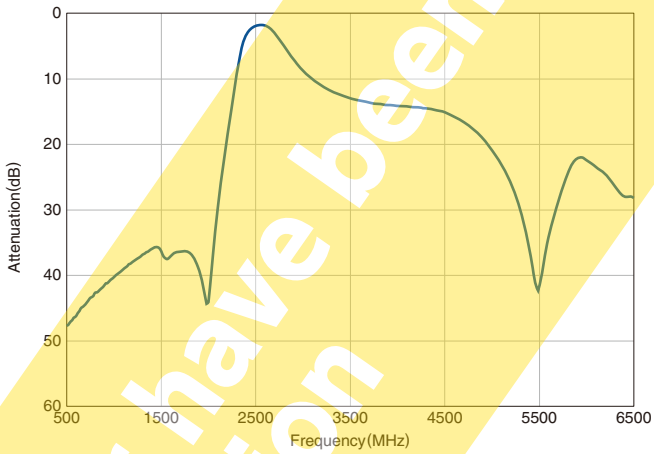
DEA212450BT-7043C1

FREQUENCY CHARACTERISTICS

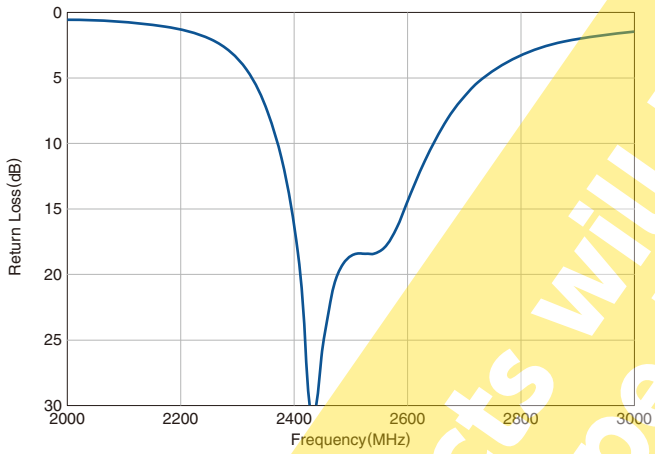
SDS21 INSERTION LOSS



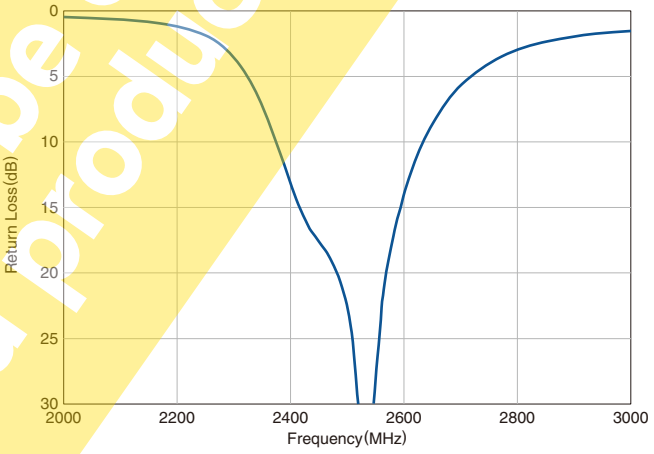
SDS21 ATTENUATION



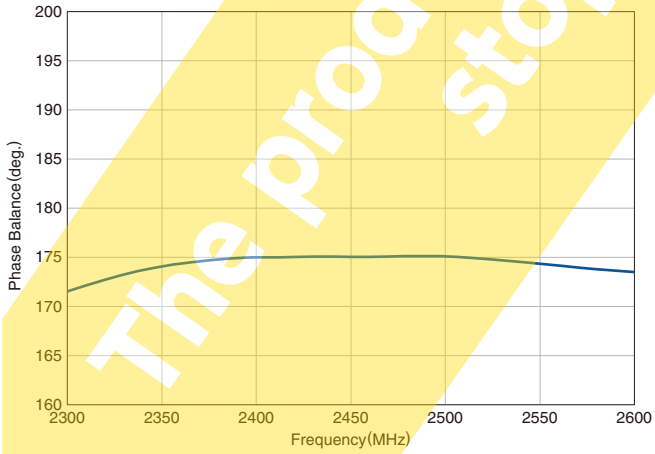
SSS11 RETURN LOSS at UNBALANCE PORT



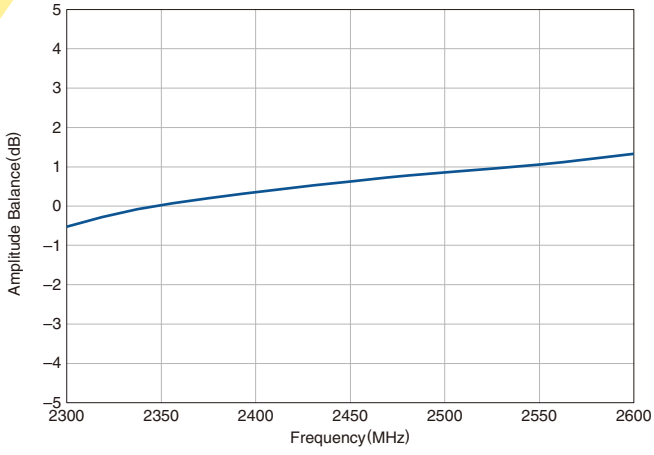
SDD22 RETURN LOSS at BALANCE PORT



PHASE BALANCE

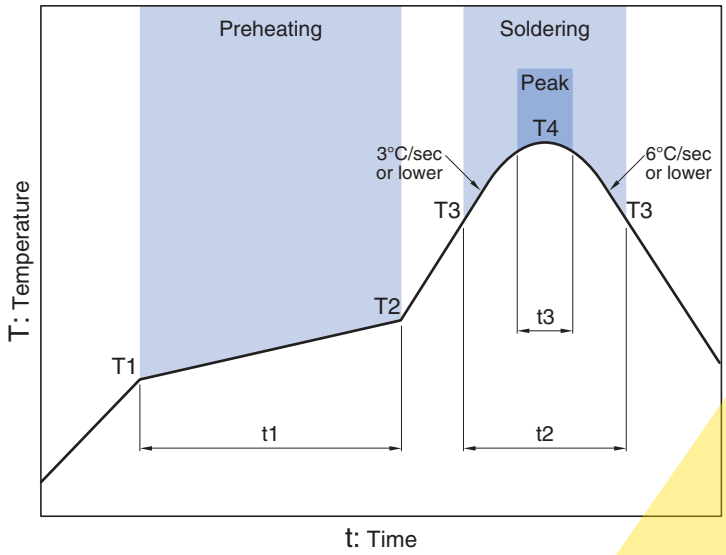


AMPLITUDE BALANCE



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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.

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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 (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.

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