December 2018

Multilayer High Pass Filter

For 5150-5950MHz

DEA105150HT-8044A1

1.0x0.5mm [EIA 0402]*

*** Dimensions Code JIS[EIA]**

Multilayer High Pass Filter

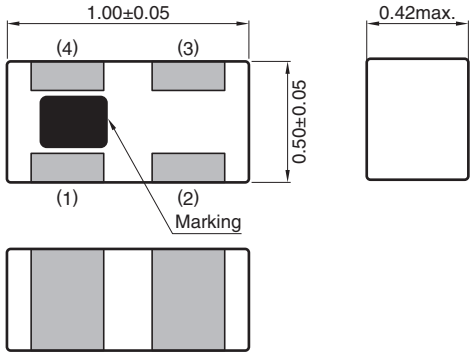
Conformity to RoHS Directive

For 5150-5950MHz

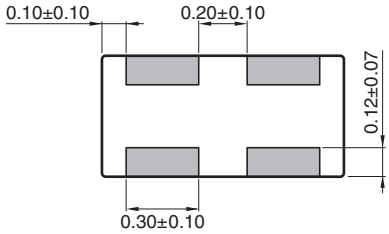
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SHAPES AND DIMENSIONS

[Top view]



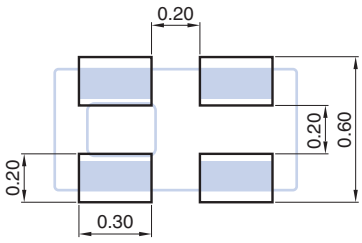
[Bottom view]



Terminal functions	
1	Input / Output Port
2	GND
3	GND
4	Output / Input Port

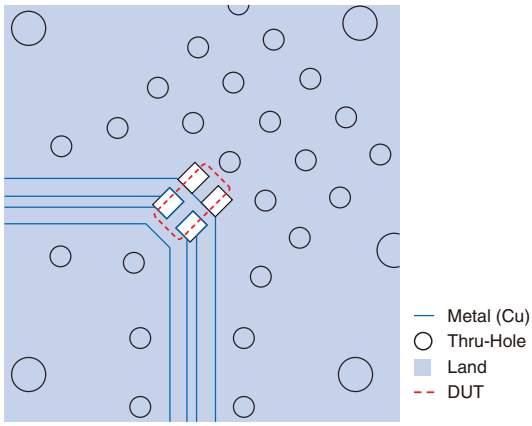
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

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 50Ω characteristic impedance, depending on PCB material and thickness.

○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.
Insertion Loss (dB)	5150 to 5250	—	3.93	6.00
	5250 to 5350	—	2.05	3.00
	5500 to 5950	—	0.82	1.10
	5150 to 5250	—	—	8.50 (–40 to +90°C)
	5250 to 5350	—	—	4.50 (–40 to +90°C)
	5500 to 5950	—	—	1.20 (–40 to +90°C)
Return Loss (dB) (Input/Output Port)	5150 to 5250	5	10	—
	5250 to 5350	10	18	—
	5500 to 5950	10	22	—
	5150 to 5250	2	—	— (–40 to +90°C)
	5250 to 5350	7	—	— (–40 to +90°C)
	5500 to 5950	8	—	— (–40 to +90°C)
Attenuation (dB)	4800 to 4960	10	15	—
	4800 to 4960	6	—	— (–40 to +90°C)
Power Handling (W)		—	—	0.8
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

TEMPERATURE RANGE

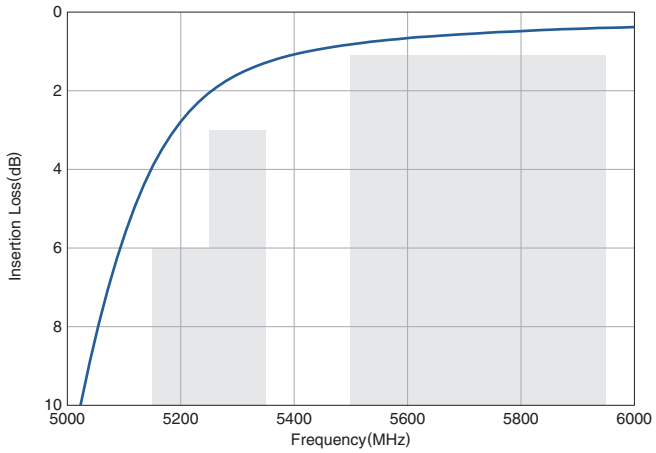
Operating temperature (°C)	Storage temperature (°C)
–40 to +90	–40 to +90

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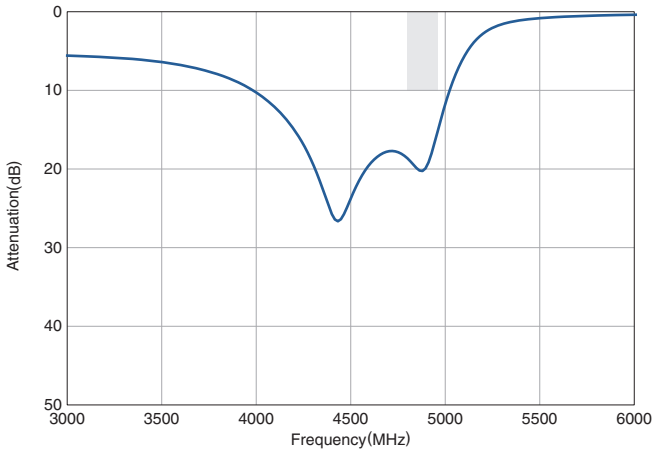
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FREQUENCY CHARACTERISTICS

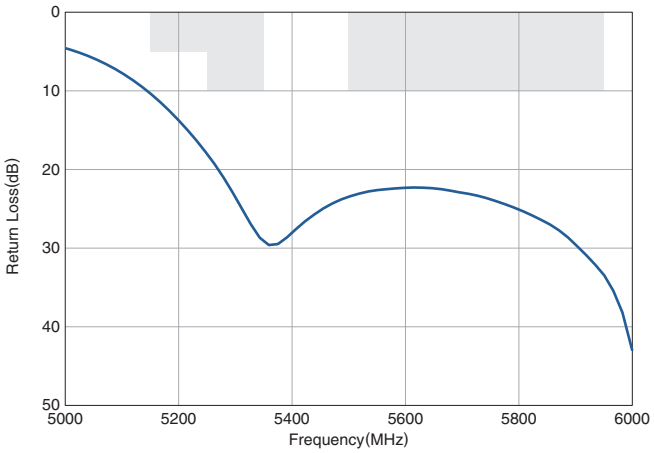
INSERTION LOSS



ATTENUATION



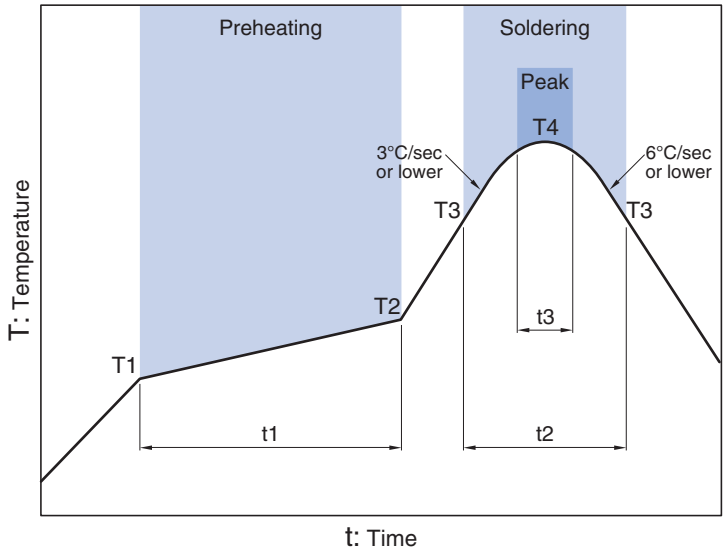
RETURN LOSS



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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.

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.