

January 2019

# **Multilayer Low Pass Filter**

For 1427.9-2170MHz

# DEA162170LT-5039A5

1.6x0.8mm [EIA 0603]\*

\* Dimensions Code JIS[EIA]

# Multilayer Low Pass Filter

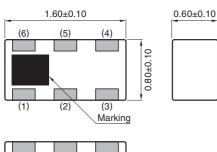
**公TDK** 

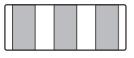
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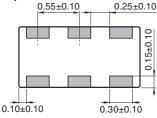
#### SHAPES AND DIMENSIONS

[Top view]





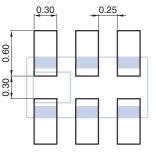
[Bottom view]



Terminal functions				
1	GND			
2	Output Port			
2 3 4	GND			
	GND			
5	Input Port			
6	GND			

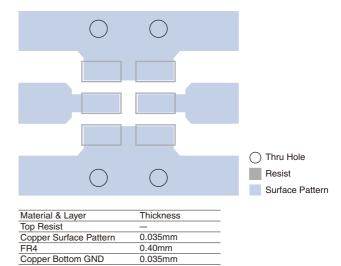
Dimensions in mm

#### RECOMMENDED LAND PATTERN



Dimensions in mm

#### EVALUATION BOARD



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

O RoHS 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.

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#### **ELECTRICAL CHARACTERISTICS**

ltem	Frequency Range (MHz)	Min.	Тур.	Max.
	1427.9 to 2025	—	0.45	0.65
Incertion Loop (dB)	2025 to 2170	—	0.60	0.85
Insertion Loss (dB)	1427.9 to 2025	—	—	0.75 (-40 to +85°C)
	2025 to 2170	_	—	0.95 (-40 to +85°C)
Return Loss (dB)	1427.9 to 2025	16	21	_
Return Loss (dB)	2025 to 2170	16	26	_
	2855 to 6075	22	27	
	6075 to 7500	20	29	
Attenuation (dB)	7500 to 9050	14	22	_
	9050 to 9400	14	21	_
	9400 to 12750	8	14	
Ripple (dB)	1427.9 to 2170		0.34	0.60
Power Handling (W)		_	_	1.0
Characteristic Impedance (Ω)			50 (Nominal)	

• Ta: +25±5°C

#### **TEMPERATURE RANGE**

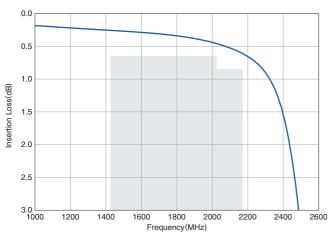
Operating temperature	Storage temperature
(°C)	(°C)
-40 to +85	-40 to +85

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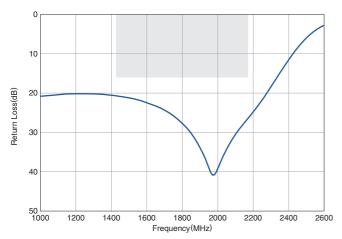
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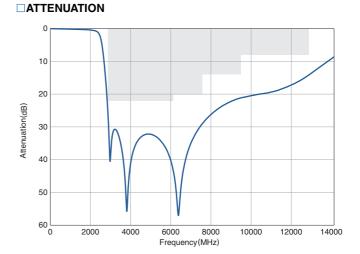
#### FREQUENCY CHARACTERISTICS





**RETURN LOSS** 



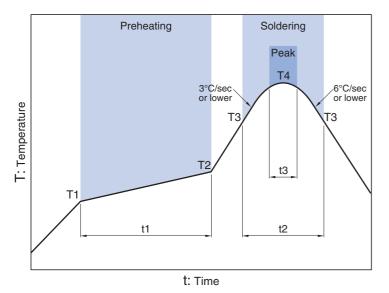


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#### RECOMMENDED REFLOW PROFILE



Preheating			Soldering Critical zone (T3 to T4) Peak			
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	Т3	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**

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# 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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<sup>•</sup> Before using these products, be sure to request the delivery specifications.