



Multilayer Band Pass Filter

For 27.5-29.5GHz

MMCB2528G5T-0001A3

2.5x2.0mm [EIA 1008]*

* Dimensions Code JIS[EIA]

Multilayer Band Pass Filter

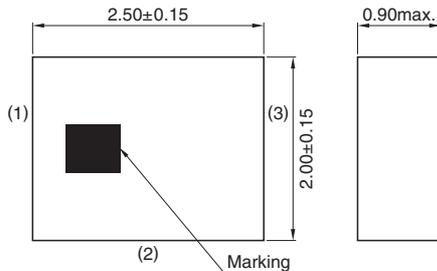
Conformity to RoHS Directive

For 27.5-29.5GHz

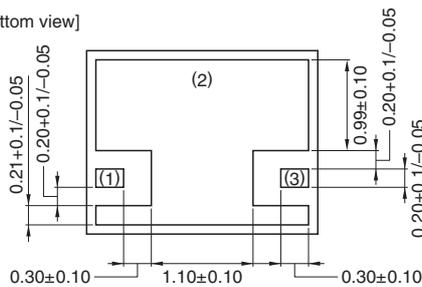
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SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

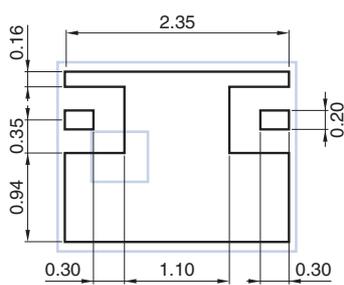


Dimensions in mm

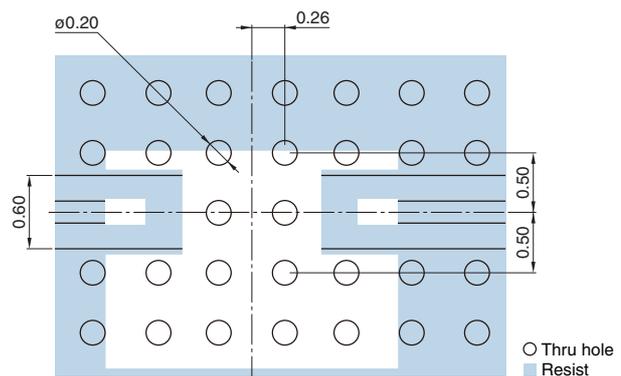
Terminal functions

1	Input / Output Port
2	GND
3	Output / Input Port

RECOMMENDED LAND PATTERN

Tolerance: ±0.05mm
Dimensions in mm

EVALUATION BOARD



Material & Layer	Thickness
Top Resist	-
Copper Surface Pattern	0.035mm
Megtron6(R-5775)	0.1mm
Copper inner GND	0.035mm
Megtron6(R-5770)	0.3mm
Megtron6(R-5775)	0.3mm
Copper Bottom GND	0.035 mm

Line width should be designed to place 50Ω characteristic impedance, depending on PCB material and thickness.

Please make sure to place Thru hole to connect under layer GND at your PCB similar with TDK EVB drawing.
If you have any concern about your PCB design, please do not hesitate to contact TDK.

○ 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

Item	Frequency Range (GHz)	Min.	Typ.	Max.
Insertion Loss (dB)	27.5 to 29.5	—	0.88	2.00
	27.5 to 29.5	—	—	2.30 (−40 to +85°C)
VSWR	27.5 to 29.5	—	1.4	1.92
	22.1 to 24.68	20	33	—
Attenuation (dB)	32.33 to 34.9	20	25	—
	22.1 to 24.68	20	—	— (−40 to +85°C)
	32.33 to 34.9	20	—	— (−40 to +85°C)
Group delay (ns)	27.5 to 29.5	—	0.25	0.6
Power Handling (W)		—	—	1 (CW)
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

TEMPERATURE RANGE

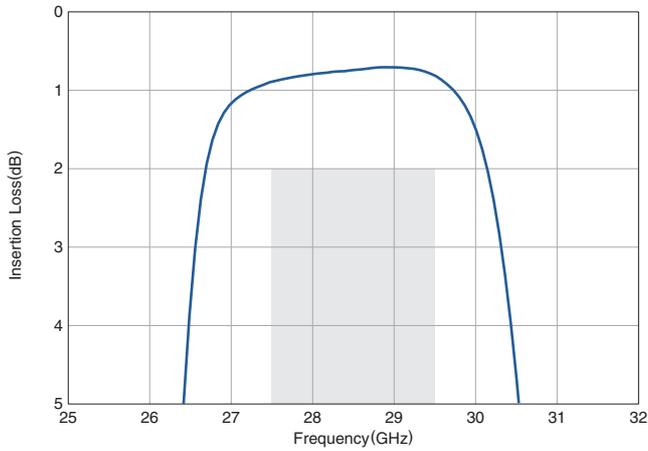
Operating temperature (°C)	Storage temperature (°C)
−40 to +85	−40 to +85

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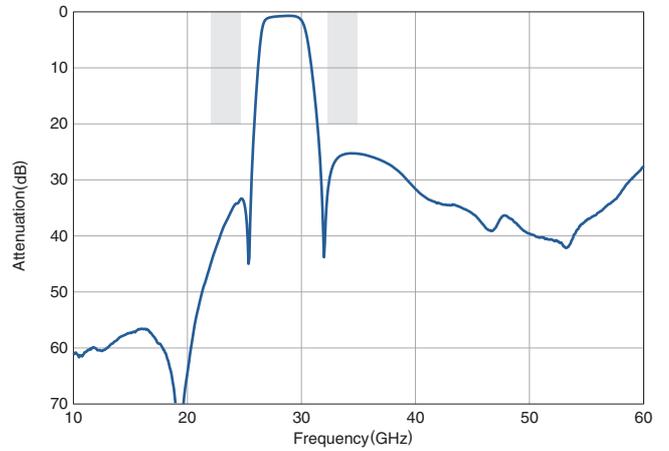
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FREQUENCY CHARACTERISTICS

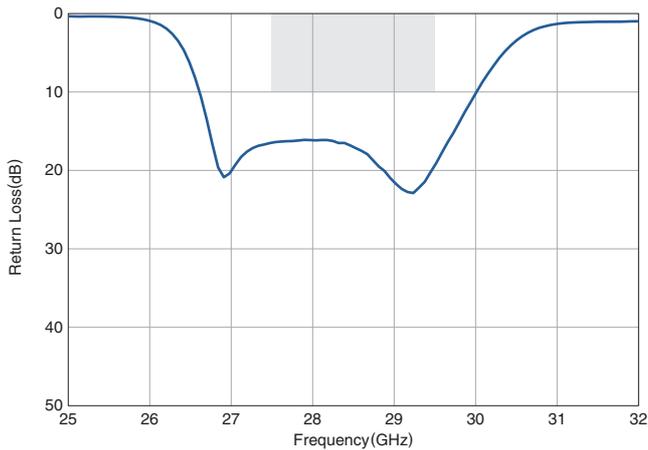
INSERTION LOSS



ATTENUATION



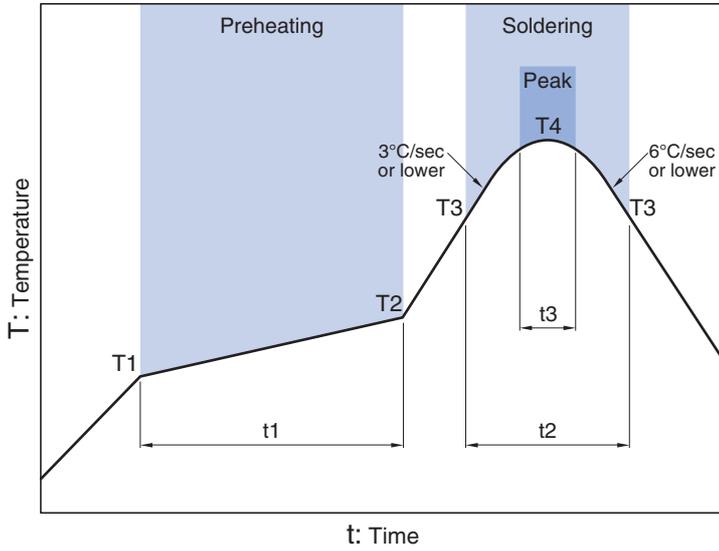
RETURN LOSS



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RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
Temp.	Temp.	Time	Critical zone (T3 to T4)		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 | (8) Public information-processing equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

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.