Multilayer Band Pass Filter
For 27.5-29.5GHz

MMCB2528G5T-0001A3

2.5×2.0mm [EIA 1008]*
* Dimensions Code JIS[EIA]
RF Components

Multilayer Band Pass Filter
For 27.5-29.5GHz

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Conformity to RoHS Directive

SHAPES AND DIMENSIONS

[Top view]

[Bottom view]

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

Dimensions in mm

RECOMMENDED LAND PATTERN

EVALUATION BOARD

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

Line width should be designed to match 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.


• 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

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

- Ta: +25±5°C

■ TEMPERATURE RANGE

<table>
<thead>
<tr>
<th>Operating temperature (°C)</th>
<th>Storage temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>–40 to +85</td>
<td>–40 to +85</td>
</tr>
</tbody>
</table>

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FREQUENCY CHARACTERISTICS

INSERTION LOSS

ATTENUATION

RETURN LOSS
# RECOMMENDED REFLOW PROFILE

<table>
<thead>
<tr>
<th>Preheating</th>
<th>Soldering Critical zone (T3 to T4)</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp.</td>
<td>Time</td>
<td>Temp.</td>
</tr>
<tr>
<td>T1</td>
<td>T2</td>
<td>T1</td>
</tr>
<tr>
<td>150°C</td>
<td>200°C</td>
<td>60 to 120sec</td>
</tr>
</tbody>
</table>

* 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.

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