Multilayer Diplexer
For 2400-2500MHz / 5150-5850MHz

DPX205850DT-9043B1BR

2.0x1.25mm [EIA 0805]*
* Dimensions Code JIS[EIA]
Multilayer Diplexer
For 2400-2500MHz / 5150-5850MHz

DPX205850DT-9043B1BR

SHAPES AND DIMENSIONS

- Top view
- Bottom view
- Terminal functions
- Dimensions in mm

RECOMMENDED LAND PATTERN

- Dimensions in mm


- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.
## ELECTRICAL CHARACTERISTICS

### LOW-BAND

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency Range (MHz)</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB)</td>
<td>2400 to 2500</td>
<td>—</td>
<td>0.27</td>
<td>0.45</td>
</tr>
<tr>
<td>Attenuation (dB)</td>
<td>4800 to 5000</td>
<td>23</td>
<td>29.6</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>7200 to 7500</td>
<td>20</td>
<td>39.1</td>
<td>—</td>
</tr>
<tr>
<td>Characteristic Impedance (Ω)</td>
<td></td>
<td></td>
<td>50 (Nominal)</td>
<td></td>
</tr>
</tbody>
</table>

* Ta: +25±5°C

### HIGH-BAND

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency Range (MHz)</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB)</td>
<td>5150 to 5850</td>
<td>—</td>
<td>0.31</td>
<td>0.50</td>
</tr>
<tr>
<td>Attenuation (dB)</td>
<td>2400 to 2500</td>
<td>25</td>
<td>31.8</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>10300 to 11700</td>
<td>20</td>
<td>28.0</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>15450 to 17550</td>
<td>18</td>
<td>31.2</td>
<td>—</td>
</tr>
<tr>
<td>Characteristic Impedance (Ω)</td>
<td></td>
<td></td>
<td>50 (Nominal)</td>
<td></td>
</tr>
</tbody>
</table>

* Ta: +25±5°C

### COMMON

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency Range (MHz)</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation (dB)</td>
<td>2400 to 2500</td>
<td>20</td>
<td>32.4</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>5150 to 5850</td>
<td>20</td>
<td>26.5</td>
<td>—</td>
</tr>
<tr>
<td>Return Loss (dB)</td>
<td>2400 to 2500</td>
<td>10</td>
<td>20.8</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>5150 to 5850</td>
<td>10</td>
<td>23.1</td>
<td>—</td>
</tr>
<tr>
<td>Characteristic Impedance (Ω)</td>
<td></td>
<td></td>
<td>50 (Nominal)</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

LOW-BAND
Insertion Loss

HIGH-BAND
Insertion Loss

Return Loss

Return Loss

Attenuation

Attenuation

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**FREQUENCY CHARACTERISTICS**

- **COMMON**
  - Return Loss
  - Isolation

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![Graphs showing frequency characteristics for Return Loss and Isolation](image-url)
RECOMMENDED REFLOW PROFILE

Soaking

<table>
<thead>
<tr>
<th>Temp.</th>
<th>Time</th>
<th>Working</th>
<th>Soldering Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>150°C</td>
<td>180°C</td>
<td>230°C</td>
</tr>
<tr>
<td>t1</td>
<td>60 to 120s</td>
<td>more than 30s</td>
<td>247 to 253°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>within 10s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>260°C max.</td>
</tr>
</tbody>
</table>

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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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