MAFL-009272-CD0AC0

CATV Diplex Filter
5 - 1002 / 1125 - 1675 MHz

Features
• 75 Ohm
• SMT unit
• RoHS Compliant

Description
• M/A-COM’s MAFL-009272-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAFL-009272-CD0AC0</td>
<td>200 Piece Reel</td>
</tr>
</tbody>
</table>

Pin Configuration

<table>
<thead>
<tr>
<th>Function</th>
<th>Pin Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Port</td>
<td>2</td>
</tr>
<tr>
<td>Low Pass Port</td>
<td>10</td>
</tr>
<tr>
<td>High Pass Port</td>
<td>4</td>
</tr>
<tr>
<td>Ground</td>
<td>1, 3, 5 - 9</td>
</tr>
<tr>
<td>Not connected</td>
<td>-</td>
</tr>
</tbody>
</table>

Electrical Specifications: $T_A = 25^\circ C, Z_0 = 75\Omega$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common to Low Insertion Loss</td>
<td>dB</td>
<td>-</td>
<td>0.05</td>
<td>0.25</td>
</tr>
<tr>
<td>5 - 42 MHz</td>
<td>dB</td>
<td>-</td>
<td>0.6</td>
<td>1.0</td>
</tr>
<tr>
<td>42 - 860 MHz</td>
<td>dB</td>
<td>-</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>860 - 1002 MHz</td>
<td>dB</td>
<td>-</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Common to High Insertion Loss</td>
<td>dB</td>
<td>-</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td>1125 - 1675 MHz</td>
<td>dB</td>
<td>-</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Common Port Return Loss</td>
<td>dB</td>
<td>12</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5 - 600 MHz</td>
<td>dB</td>
<td>11</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>600 - 950 MHz</td>
<td>dB</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>950 - 1002 MHz</td>
<td>dB</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>1125 - 1200 MHz</td>
<td>dB</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>1200 - 1550 MHz</td>
<td>dB</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>1550 - 1675 MHz</td>
<td>dB</td>
<td>9.5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Common port voltage transient</td>
<td>V</td>
<td>-</td>
<td>-</td>
<td>200</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>DC Current</td>
<td>30mA</td>
</tr>
<tr>
<td>RF Power</td>
<td>250mW</td>
</tr>
</tbody>
</table>

For further information and support please visit:
https://www.macom.com/support
CATV Diplex Filter
5 - 1002 / 1125 - 1675 MHz

Outline Drawing: SM-172

Dimensions in mm. Tolerance: ±0.1, ±0.05 unless otherwise noted

Recommended PCB Configuration

NOTE: Substrate is 1.6mm thick FR4
Typical Performance Curves at +25°C

**Common to Low pass**

-70 dB to 0 dB

**Freq (MHz)**

**Common to High pass**

-70 dB to 0 dB

**Freq (MHz)**

**Common Port Return Loss**

-70 dB to 0 dB

**Freq (MHz)**
Tape Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ao</td>
<td>15.80mm +/- 0.1mm</td>
</tr>
<tr>
<td>Bo</td>
<td>30.30mm +/- 0.1mm</td>
</tr>
<tr>
<td>Ko</td>
<td>7.20mm +/- 0.1mm</td>
</tr>
<tr>
<td>W</td>
<td>44.00mm +/- 0.3mm</td>
</tr>
<tr>
<td>P1</td>
<td>24.00mm +/- 0.1mm</td>
</tr>
</tbody>
</table>
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