Thin Film on Silicon 2CFA Tapped RC Filter

Features
- Lead free
- RoHS compliant*
- 8 RC filters with common ground
- Stable thin-film-on-silicon technology
- Ultra-miniature packages to JEDEC standards

Applications
- EMI/RFI filtering on bus lines
- High frequency applications
- Ideal for space-constrained applications

General Information
Tapped Filters are typically used for filtering EMI and RFI on high-speed data lines connecting computer with peripheral. These Silicon-based, Tantalum Nitride resistors and capacitors feature excellent stability, temperature coefficients and tracking performance. This product series conforms to JEDEC standards.

Electrical & Environmental Characteristics

<table>
<thead>
<tr>
<th>Electrical Characteristics</th>
<th>Symbol</th>
<th>Minimum</th>
<th>Nominal</th>
<th>Maximum</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance Range</td>
<td>R</td>
<td>10</td>
<td></td>
<td>470</td>
<td>Ω</td>
</tr>
<tr>
<td>Resistor Tolerance</td>
<td></td>
<td>±10 %</td>
<td></td>
<td></td>
<td>Ω</td>
</tr>
<tr>
<td>Power Rating per Resistor @ 70 °C</td>
<td></td>
<td></td>
<td>0.1</td>
<td>0.1 Watt</td>
<td></td>
</tr>
<tr>
<td>Capacitor Range</td>
<td>C</td>
<td>15</td>
<td></td>
<td>220</td>
<td>pF</td>
</tr>
<tr>
<td>Capacitor Tolerance</td>
<td></td>
<td>±20 %</td>
<td></td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Capacitor Breakdown Voltage</td>
<td></td>
<td>25</td>
<td></td>
<td>35</td>
<td>V</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>V</td>
</tr>
<tr>
<td>Environmental Characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESD</td>
<td></td>
<td>2 K</td>
<td></td>
<td>+125</td>
<td>V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>T_J</td>
<td>-55</td>
<td></td>
<td>+125</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>T_stg</td>
<td>-65</td>
<td></td>
<td>+150</td>
<td>°C</td>
</tr>
<tr>
<td>Power Rating per Package @ 70 °C</td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
<td>Watt</td>
</tr>
</tbody>
</table>

Frequency Response

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.
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Mechanical Characteristics

QSOP Package Dimensions

Governing dimensions are in mm. Dimensions in parentheses are in inches and are approximate.

JEDEC Reference Number MO-137.

QSOP Package Power Temperature Derating Curve

Typical Part Marking

Represents total content. Layout may vary.

Standard RC Values

<table>
<thead>
<tr>
<th>R1 Value (ohms)</th>
<th>C1 Value (pF)</th>
<th>Cap. BV (typ.)</th>
<th>Part Number (Tape &amp; Reel)</th>
<th>Part Number (Tubes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>47</td>
<td>75</td>
<td>2CFA-330/470M-Q20R</td>
<td>2CFA-330/470M-Q20T</td>
</tr>
</tbody>
</table>

OBSOLETE
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Dispensing

For large quantities, the product will be dispensed in Tape and Reel (see diagram below).

<table>
<thead>
<tr>
<th>Package</th>
<th>A₀</th>
<th>B₀</th>
<th>K₀</th>
<th>Width</th>
<th>Pitch</th>
<th>No. of Pieces per 13</th>
<th>No. of Pieces per tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSOP 20 Pin</td>
<td>6.5 (0.256)</td>
<td>9.0 (0.354)</td>
<td>2.1 (0.083)</td>
<td>16 (0.630)</td>
<td>8 (0.315)</td>
<td>3,500</td>
<td>56</td>
</tr>
</tbody>
</table>

How To Order

Product Class
Thin-Film-on-Silicon
Product Function
CFA = Tapped RC Filter
Resistance Value Code
1st two digits are significant, 3rd digit = number of zeros to follow to give resistance value in ohms.
Capacitance Code
1st two digits are significant, 3rd digit = number of zeros to follow to give capacitor value in pF.
Standard Grade
R = ±10 %
C = ±20 %
Standard Package Style
Q = QSOP
Pin Count
Q = 20
Dispensing
R = Reel
T = Tube
Terminations
LF = 100 % Sn (lead free)

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Tel: +41-41 768 5555 • Fax: +41-41 768 5510
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