**Common mode Noise Filters with ESD Suppressor**

**Type:** EXC24CS

**Features**
- Provides EMI Filtering and ESD Protection (L 1.25 mm × W 1.00 mm × H 0.50 mm)
- ESD and noise suppression of high-speed differential transmission lines with little influence of waveform rounding on signal transmission
- High Common mode attenuation in the range between 700 MHz and 1 GHz (RF band)
- Strong multilayer/sintered structure, excellent reflow resistance and high mounting reliability
- Lead, halogen and antimony-free
- RoHS compliant

**Recommended Applications**
- Smartphones, Tablet PCs and DSC
- ESD and noise suppression of high-speed differential data lines such as MIPI and USB

**Explanation of Part Numbers**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>X</td>
<td>C</td>
<td>2</td>
<td>4</td>
<td>C</td>
<td>S</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>U</td>
<td></td>
</tr>
</tbody>
</table>

- **Product Code**
- **Size**
- **Number of Terminals**
- **Type**
- **Characteristics**
- **Nominal Impedance**
- **Form**
- **Suffix**

**Construction**

- *Explain the construction of the filter with Ceramics, Ferrite, and Inner Conductor.*

**Dimensions in mm (not to scale)**

<table>
<thead>
<tr>
<th>Part No. (Inch size)</th>
<th>Dimensions (mm)</th>
<th>Mass (Weight) (mg/pcs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXC24CS (0504)</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>0.25±0.15</td>
<td>1.00±0.15</td>
</tr>
</tbody>
</table>

**Circuit Configuration (No Polarity)**

- *Explain the circuit configuration with the pin numbers.*

- The pin numbers shown here are for reference purposes only. Confirm the actual pin number arrangement with the exchanged specification documents.
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### Ratings

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Impedance (Ω) at 100 MHz</th>
<th>Rated Voltage (V DC)</th>
<th>Rated Current (mA DC)</th>
<th>DC Resistance (Ω)max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXC24CS350U</td>
<td>35 Ω±30 %</td>
<td>5</td>
<td>100</td>
<td>2.0</td>
</tr>
<tr>
<td>EXC24CS900U</td>
<td>90 Ω±20 %</td>
<td>5</td>
<td>100</td>
<td>3.0</td>
</tr>
</tbody>
</table>

- Category Temperature Range –40 °C to +85 °C

### Impedance Characteristics (Typical)

- **EXC24CS350U**

![Impedance Characteristics (Typical) - EXC24CS350U](image)

- **EXC24CS900U**

![Impedance Characteristics (Typical) - EXC24CS900U](image)

- Measurement Circuit

![Measurement Circuit](image)

### ESD Suppression Characteristics (Typical : IEC61000-4-2, 8 kV contact discharge)

![ESD Suppression Characteristics](image)

### Recommended Land Pattern Design in mm (not to scale)

![Recommended Land Pattern Design](image)

- **As for Packaging Methods, Soldering Conditions and Safety Precautions,**
  Please see Data Files

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Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

00 Apr. 2015