# SMT Common Mode Chokes

**for power line applications**

- Solutions for use in a wide array of power line circuits
- Ideal for use in consumer electronics and industrial applications
- Suppression of high frequency common mode noise up to 100 MHz
- Excellent current ratings – up to 10 A
- Isolation (hipot) up to 1500 Vrms
- Surface mount toroids
- Upon request, additional values may be available for particular applications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode peak impedance (kOhms)</th>
<th>Inductance (mH)</th>
<th>Irms (A)</th>
<th>DCR max (mOhms)</th>
<th>Isolation max (Vrms)</th>
<th>Length max (mm)</th>
<th>Width max (mm)</th>
<th>Height max (mm)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1755-AL</td>
<td>3.32 @ 5.1 MHz</td>
<td>0.88</td>
<td>0.57</td>
<td>1.2</td>
<td>130</td>
<td>1000</td>
<td>13.00</td>
<td>13.00</td>
<td>5.46</td>
</tr>
<tr>
<td>CR7915-AL</td>
<td>3.10 @ 4.9 MHz</td>
<td>1.12</td>
<td>0.73</td>
<td>2.6</td>
<td>49.5</td>
<td>1500</td>
<td>13.00</td>
<td>13.00</td>
<td>5.60</td>
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<tr>
<td>CF3094-AL</td>
<td>7.93 @ 2.5 MHz</td>
<td>1.17</td>
<td>0.76</td>
<td>1.1</td>
<td>200</td>
<td>1000</td>
<td>13.00</td>
<td>13.00</td>
<td>5.46</td>
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<tr>
<td>CM6518-AL</td>
<td>4.17 @ 1.9 MHz</td>
<td>1.40</td>
<td>0.91</td>
<td>2.5</td>
<td>60.0</td>
<td>1500</td>
<td>16.38</td>
<td>14.22</td>
<td>8.90</td>
</tr>
<tr>
<td>CJ5094-CL</td>
<td>28.28 @ 0.26 MHz</td>
<td>10.0</td>
<td>6.5</td>
<td>12</td>
<td>180</td>
<td>1000</td>
<td>16.38</td>
<td>14.22</td>
<td>8.90</td>
</tr>
<tr>
<td>CV9172-AL</td>
<td>70.01 @ 0.21 MHz</td>
<td>22.0</td>
<td>14.3</td>
<td>0.57</td>
<td>850</td>
<td>1000</td>
<td>16.38</td>
<td>14.22</td>
<td>8.90</td>
</tr>
<tr>
<td>CF2638L</td>
<td>2.59 @ 4.3 MHz</td>
<td>0.22</td>
<td>0.14</td>
<td>2.9</td>
<td>60.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CD1479-AL</td>
<td>4.19 @ 3.0 MHz</td>
<td>0.59</td>
<td>0.38</td>
<td>4.2</td>
<td>20.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CH4659-AL</td>
<td>4.56 @ 2.5 MHz</td>
<td>0.77</td>
<td>0.50</td>
<td>4.7</td>
<td>40.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CD1480-Bl</td>
<td>4.53 @ 2.2 MHz</td>
<td>1.32</td>
<td>0.85</td>
<td>3.5</td>
<td>60.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CE2439L</td>
<td>9.42 @ 1.1 MHz</td>
<td>1.47</td>
<td>0.96</td>
<td>2.5</td>
<td>80.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CG3333-AL</td>
<td>2.27 @ 2.9 MHz</td>
<td>0.90</td>
<td>0.59</td>
<td>3.7</td>
<td>50.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.90</td>
</tr>
<tr>
<td>CG3528-AL</td>
<td>6.23 @ 0.72 MHz</td>
<td>3.00</td>
<td>1.95</td>
<td>3.1</td>
<td>42.0</td>
<td>1000</td>
<td>19.56</td>
<td>17.02</td>
<td>9.91</td>
</tr>
<tr>
<td>CE1759-AL</td>
<td>4.82 @ 0.99 MHz</td>
<td>0.81</td>
<td>0.52</td>
<td>6.0</td>
<td>14.0</td>
<td>1000</td>
<td>31.0</td>
<td>26.0</td>
<td>13.0</td>
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<tr>
<td>CG3885-AL</td>
<td>3.11 @ 1.8 MHz</td>
<td>0.47</td>
<td>0.30</td>
<td>10.0</td>
<td>8.0</td>
<td>1000</td>
<td>31.0</td>
<td>26.0</td>
<td>12.7</td>
</tr>
<tr>
<td>CF2805-AL</td>
<td>3.64 @ 1.9 MHz</td>
<td>0.63</td>
<td>0.40</td>
<td>6.8</td>
<td>14.0</td>
<td>1000</td>
<td>31.0</td>
<td>26.0</td>
<td>12.7</td>
</tr>
</tbody>
</table>
# Common Mode Choke — CE1755-AL

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)</th>
<th>I_{\text{rms}}</th>
<th>DCR max</th>
<th>Isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1755-AL_</td>
<td>3.32 @ 5.1 MHz</td>
<td>0.88</td>
<td>1.2</td>
<td>130</td>
<td>1000</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:

   **CE1755-ALD**

   **Packaging:**
   - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Typical Attenuation**

**Typical Impedance versus Frequency**

**Core material:** Ferrite  
**Terminations:** RoHS compliant tin-silver-copper over copper  
**Weight:** 0.92 g  
**Ambient temperature:** –40°C to +85°C with I_{\text{rms}} current  
**Maximum part temperature:** +125°C (ambient + temp rise)  
**Storage temperature:** Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C  
**Resistance to soldering heat:** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles  
**Moisture Sensitivity Level (MSL):** 1 (unlimited floor life at <30°C / 85% relative humidity)  
**Packaging:** 600/13” reel  
**PCB washing:** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.
Common Mode Choke – CR7915-AL

<table>
<thead>
<tr>
<th>Part number 1</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)</th>
<th>Irms3</th>
<th>DCR max4</th>
<th>Isolation5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR7915-AL</td>
<td>3.10 @ 4.9 MHz</td>
<td>1.12</td>
<td>0.73</td>
<td>2.6</td>
<td>49.5</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
   CR7915-ALD

   Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Typical Attenuation

Typical Impedance versus Frequency

Core material Ferrite
Terminations RoHS compliant tin-silver-copper over copper
Weight 1.53 g
Ambient temperature –40°C to +85°C with Irms current
Maximum part temperature +125°C (ambient + temp rise)
Storage temperature Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging 600/13” reel Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 5.5 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.
Common Mode Chokes – CF3094-AL

1. When ordering, please specify packaging code:

   **Packaging:**
   - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

### Typical Attenuation

![Typical Attenuation graph](image)

### Typical Impedance versus Frequency

![Typical Impedance graph](image)

### Specifications

- **Core material**: Ferrite
- **Terminations**: RoHS compliant tin-silver-copper over copper
- **Weight**: 1.38 g
- **Ambient temperature**: –40°C to +85°C with 1rms current
- **Maximum part temperature**: +125°C (ambient + temp rise)
- **Storage temperature**: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
- **Resistance to soldering heat**: Max three 40 second refloows at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **Packaging**: 600/13” reel. Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 5.5 mm pocket depth
- **PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

### Dimensions

- **Internal code**: CF3094-AL
- **Recommended Land Pattern**: As per image

### Technical Details

- **Attenuation**: Differential mode, Common mode
- **Impedance (kOhms)**: As per graph
- **Frequenc y (MHz)**: 0.1 to 100
- **DCR max**: As per graph
- **Isolation**: As per graph

### Part number

- **CF3094-AL**: 7.93 @ 2.5 MHz

- **Inductance (mH)**: nom min
  - 1.17 0.76
- **Irms (A)**: 1.1
- **DCR max**: (mOhms) 200
- **Isolation**: (Vrms) 1000
Common Mode Choke – CM6518-AL

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Common mode impedance (kOhms)</th>
<th>Inductance (mH)2</th>
<th>Irms3</th>
<th>DCR max4</th>
<th>Isolation5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM6518-AL_</td>
<td>4.17 @ 1.9 MHz</td>
<td>1.40</td>
<td>0.91</td>
<td>2.5</td>
<td>60.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   **CM6518-ALD**

   **Packaging:**
   - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 A dc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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**Typical Attenuation**

**Typical Impedance versus Frequency**

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over copper

**Weight** 2.48 g

**Ambient temperature** –40°C to +85°C with Irms current

**Maximum part temperature** +125°C (ambient + temp rise)

**Storage temperature** Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 350/13” reel Plastic tape: 24 mm wide, 0.4 mm thick, 20 mm pocket spacing, 9.1 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.
Common Mode Choke – CJ5094-CL

Part number\(^1\) | Common mode impedance \(\text{max (kOhms)}\) | Inductance \(\text{(mH)}\)\(^2\) | \(I_{\text{rms}}\)\(^3\) | DCR max\(^4\) | Isolation\(^5\) | \\
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ5094-CL_</td>
<td>28.28 @ 0.26 MHz</td>
<td>10.0</td>
<td>6.5</td>
<td>1.2</td>
<td>180</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ5094-CLD</td>
<td>D = 13&quot; machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).</td>
</tr>
<tr>
<td>B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.</td>
<td></td>
</tr>
</tbody>
</table>

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

---

**Typical Attenuation**

**Typical Impedance versus Frequency**

- **Core material**: Ferrite
- **Terminations**: RoHS compliant tin-silver-copper over copper
- **Weight**: 2.9 g
- **Ambient temperature**: –40°C to +85°C with \(I_{\text{rms}}\) current
- **Maximum part temperature**: +125°C (ambient + temp rise)
- **Storage temperature**: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
- **Resistance to soldering heat**: Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **Packaging**: 350/13" reel. Plastic tape: 24 mm wide, 0.4 mm thick, 24 mm pocket spacing, 8.6 mm pocket depth
- **PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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**Dimensions are in inches/mm**

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**Recommended Land Pattern**
Common Mode Choke – CV9172-AL

1. When ordering, please specify packaging code:
   - CV9172-ALD
     - D = 13” machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
     - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 1.0 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)2</th>
<th>Irms3 (A)</th>
<th>DCR max4 (mOhms)</th>
<th>Isolation5 (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV9172-AL</td>
<td>70.01 @ 0.21 MHz</td>
<td>22.0</td>
<td>0.57</td>
<td>850</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>max (kOhms) nom min</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Typical Attenuation

Typical Impedance versus Frequency

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 2.4 g
Ambient temperature: –40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 350/13” reel Plastic tape: 24 mm wide, 0.4 mm thick, 20 mm pocket spacing, 9.1 mm pocket depth
**Common Mode Choke – CF2638L**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH) (^\text{2}^)</th>
<th>Irms (^\text{3}^) (A)</th>
<th>DCR max (^\text{4}^) (mOhms)</th>
<th>Isolation (^\text{5}^) (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF2638LD</td>
<td>2.59 @ 4.3 MHz</td>
<td>0.22</td>
<td>0.14</td>
<td>2.9</td>
<td>60.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

**CF2638LD**

**Packaging:**
- **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
- **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 1.0 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.

**Typical Attenuation**

**Typical Impedance versus Frequency**

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 3.2 g
Ambient temperature: –40°C to +85°C with 1rms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 250/13” reel: Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

Dimensions are in inches / mm

Recommended Land Pattern

Recommended Packaging

© Coilcraft Inc. 2021
This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specification subject to change without notice. Please check web site for latest information.
Common Mode Choke – CD1479-AL

| Part number1 | Common mode impedance max (kOhms) | Inductance (mH)²
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CD1479-AL</td>
<td>4.19 @ 3.0 MHz</td>
<td>0.59 0.38</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   CD1479-ALD

   Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

   B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

- **Core material**: Ferrite
- **Terminations**: RoHS compliant tin-silver-copper over copper
- **Weight**: 4.9 g
- **Ambient temperature**: –40°C to +85°C with Irms current
- **Maximum part temperature**: +125°C (ambient + temp rise)
- **Storage temperature**: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
- **Resistance to soldering heat**: Max three 40 second reflo ws at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **Packaging**: 250/13” reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

**PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

---

**Typical Impedance versus Frequency**

**Typical Attenuation**

**Recommended Land Pattern**

Dimensions are in **inches**

| 0.175  | 4.45 |
| 0.060  | 1.52 |
| 0.445  | 11.30 |

- **Core material**: Ferrite
- **Terminations**: RoHS compliant tin-silver-copper over copper
- **Weight**: 4.9 g
- **Ambient temperature**: –40°C to +85°C with Irms current
- **Maximum part temperature**: +125°C (ambient + temp rise)
- **Storage temperature**: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
- **Resistance to soldering heat**: Max three 40 second reflo ws at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **Packaging**: 250/13” reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

**PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.
**Common Mode Choke – CH4659-AL**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)$^1$</th>
<th>Irms$^2$ (A)</th>
<th>DCR max$^4$ (mOhms)</th>
<th>Isolation$^5$ (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH4659-AL</td>
<td>4.56 @ 2.5 MHz</td>
<td>0.77</td>
<td>4.7</td>
<td>40.0</td>
<td>1000</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:

- **CH4659-AL**
  - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
  - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 1.0 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

---

**Typical Attenuation**

**Typical Impedance versus Frequency**

**Core material**  Ferrite

**Terminations**  RoHS compliant tin-silver-copper over copper

**Weight**  4.8 g

**Ambient temperature**  -40°C to +85°C with Irms current

**Maximum part temperature**  +125°C (ambient + temp rise)

**Storage temperature**  Component: -40°C to +125°C.

Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat**  Max three 40 second ref flows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**  1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging**
- 250/13” reel  Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

**PCB washing**  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

---

**Recommended Land Pattern**

**Dimensions are in inches / mm**
Common Mode Choke – CD1480-BL

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)</th>
<th>Irms (A)</th>
<th>DCR max (mOhms)</th>
<th>Isolation (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD1480-BL_</td>
<td>4.53 @ 2.2 MHz</td>
<td>1.32 nom</td>
<td>0.85</td>
<td>3.5</td>
<td>60.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
   - **CD1480-BLD**

**Packaging:**
- **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
- **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 1 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Core material**
Ferrite

**Terminations**
RoHS compliant tin-silver-copper over copper

**Weight**
4.5 g

**Ambient temperature**
-40°C to +85°C with Irms current

**Maximum part temperature**
-125°C (ambient + temp rise)

**Storage temperature**
Component: -40°C to +125°C.
Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat**
Max three 40 second refloWS at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**
1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging**
250/13” reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

**PCB washing**
Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Dimensions are in inches mm

**Recommended Land Pattern**

---

**Typical Impedance versus Frequency**

**Typical Attenuation**
Common Mode Choke – CE2439L

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)</th>
<th>I rms (A)</th>
<th>DCR max (mOhms)</th>
<th>Isolation (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2439L</td>
<td>9.42 @ 1.1 MHz</td>
<td>1.47 / 0.96</td>
<td>2.5</td>
<td>80.0</td>
<td>1000</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   **CE2439LD**

   **Packaging:**
   - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 1 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Typical Attenuation**

**Typical Impedance versus Frequency**

- **Core material**: Ferrite
- **Terminations**: RoHS compliant tin-silver-copper over copper
- **Weight**: 4.3 g
- **Ambient temperature**: -40°C to +85°C with Irms current
- **Maximum part temperature**: +125°C (ambient + temp rise)
- **Storage temperature**: Component: -40°C to +125°C
- **Resistance to soldering heat**: Max three 40 second refows at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **Packaging**: 250/13” reel. Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth
- **PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc 787_PCB_Washing.pdf.

**Dimensions are in inches mm**
Common Mode Chokes – CG3333-AL

1. When ordering, please specify packaging code:
   - D = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number(^1)</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)(^2)</th>
<th>Irms(^3) (A)</th>
<th>DCR max(^4) (mOhms)</th>
<th>Isolation(^5) (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG3333-AL_2.27 @ 2.9 MHz</td>
<td>0.90</td>
<td>0.59</td>
<td>3.7</td>
<td>50.0</td>
<td>1000</td>
</tr>
</tbody>
</table>

Typical Attenuation

Typical Impedance versus Frequency

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 4.2 g
Ambient temperature: –40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second reflo ws at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 250/13” reel. Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

Dimensions are in inches / mm

Recommended Land Pattern

Recommended Packaging

Packaging: 250/13” reel. Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth

Documents subject to change without notice.
Common Mode Chokes – CG3528-AL

<table>
<thead>
<tr>
<th>Part number¹</th>
<th>Common mode</th>
<th>Inductance (mH)²</th>
<th>Irms³</th>
<th>DCR max⁴</th>
<th>Isolation⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG3528-AL</td>
<td>max (kOhms)</td>
<td>nom</td>
<td>min</td>
<td>(A)</td>
<td>(mOhms)</td>
</tr>
<tr>
<td></td>
<td>6.23 @ 0.72 MHz</td>
<td>3.00</td>
<td>1.95</td>
<td>3.1</td>
<td>42.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

CG3528-ALD

Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 1.0 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Typical Attenuation

Typical Impedance versus Frequency

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 5.1 g
Ambient temperature: -40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: -40°C to +125°C.
Tape and reel packaging: -40°C to +80°C
Resistance to soldering heat: Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 250/13” reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 10.1 mm pocket depth
Common Mode Choke – CE1759-AL

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)²</th>
<th>Irms³</th>
<th>DCR max⁴</th>
<th>Isolation⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1759-AL_</td>
<td>4.82 @ 0.99 MHz</td>
<td>0.81</td>
<td>6.0</td>
<td>14.0</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

Packaging:  
D = 13" machine-ready reel. EIA-481 embossed plastic tape (120 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.

3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

4. DCR is specified per winding.

5. Isolation (hipot) measured for two seconds.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Typical Impedance versus Frequency**

**Typical Attenuation**

**Core material**  
Ferrite

**Terminations**  
RoHS compliant tin-silver-copper over copper

**Weight**  
12.9 g

**Ambient temperature**  
-40°C to +85°C with Irms current

**Maximum part temperature**  
+125°C (ambient + temp rise)

**Storage temperature**  
Component: -40°C to +125°C. Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat**  
Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**  
1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging**  
120/13" reel  
Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 12.4 mm pocket depth

**PCB washing**  
Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.
Common Mode Choke – CG3885-AL

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)</th>
<th>Irms (A)</th>
<th>DCR max (mOhms)</th>
<th>Isolation (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG3885-AL_</td>
<td>3.11 @ 1.8 MHz</td>
<td>0.47</td>
<td>0.30</td>
<td>10.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
   - CG3885-ALD
     - Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (120 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
     - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.
   - Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
   - Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
   - DCR is specified per winding.
   - Isolation (hipot) measured for two seconds.
   - Electrical specifications at 25°C.
   - Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Typical Attenuation

Typical Impedance versus Frequency

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 15.3 g
Ambient temperature: –40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second refows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 120/13” reel. Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 12.4 mm pocket depth
Common Mode Choke – CF2805-AL

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Common mode impedance max (kOhms)</th>
<th>Inductance (mH)2</th>
<th>Irms3</th>
<th>DCR max4</th>
<th>Isolation5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF2805-AL_</td>
<td>3.64 @ 1.9 MHz</td>
<td>0.63</td>
<td>0.40</td>
<td>6.8</td>
<td>14.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code: CF2805-AL
   - **D** = 13” machine-ready reel. EIA-481 embossed plastic tape (120 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. Current per winding that causes a 40°C rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
4. DCR is specified per winding.
5. Isolation (hipot) measured for two seconds.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Typical Attenuation**

**Typical Impedance versus Frequency**

Core material: Ferrite
Terminations: RoHS compliant tin-silver-copper over copper
Weight: 14.6 g
Ambient temperature: –40°C to +85°C with Irms current
Maximum part temperature: +125°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat: Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging: 120/13” reel. Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 12.4 mm pocket depth