



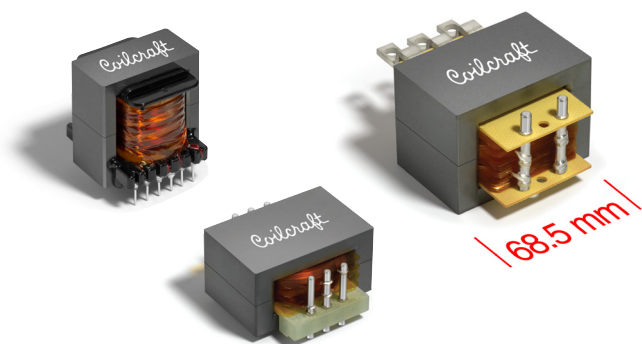
# Capabilities Bulletin: Magnetic Components for High-load Applications

Coilcraft has more than 70 years of experience supplying magnetic components to a wide range of industries, including the following solutions for use in high-load applications:

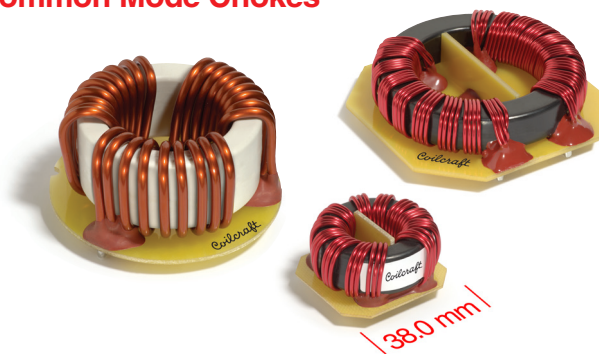
- Transformers for use in full bridge/half bridge rectifiers capable of providing several kilowatts of power
- Common mode chokes with continuous current ratings up to 50 Amps – call to discuss even higher ratings!

As an ISO/TS-16949 certified company, Coilcraft has the quality systems in place to deliver robust, reliable solutions for your requirements. The following are a few examples of our capabilities. **Ask your Coilcraft sales engineer about custom solutions for your design requirements.**

## Converter Transformers



## Common Mode Chokes



Part Number	L min. (μH)	I <sub>rms</sub> (A)	Length (mm)	Width (mm)	Height (mm)
CMH2617-15340L	11.05	40	26	26	17
CMH3923-30431L	300	31	39	38	23
CMV3532-10516L	1000	16	35	22	32
CMH4530-10523L	1000	23	45	45	30
CMH3921-10534L	1000	34	39	38	21
CMH3921-20522L	2000	22	39	38	21.5
CMH3815-30516L	2400	16	38.5	38.5	15.5
CMH7018-10535L	1000	35	70	70	18
CMH7036-15533L	750	33	70	70	36

Part Number	Power (W)	Turns Ratio pri : sec1 : sec2	Input Voltage (V)	Output Voltage (V)	Output Current (A)	L Primary (μH)	DCR Primary (mOhms)	Isolation (V <sub>rms</sub> )	L (mm)	W (mm)	H (mm)
PLH1120	1120	1 : 0.200 : –	110 – 140	14	80	31.62	37.4	1500	31.1	34.4	16.9
PLH1260	1260	1 : 0.167 : 0.084	200 – 400	14	90	3510	76.3	2500	37.4	42.8	20
PLH3600	3600	1 : 0.833 : –	400	240 – 430	11	275	34.3	2000	50.6	53	26.5
PLH7200	7200	1 : 0.900 : –	80 – 264	260 – 450	20	75	11.41	2000	50.6	53	26.5
PLH1600	1600	1 : 0.083 : 0.083	96 – 192	8 – 16	200	2016	10.5	2000	50.6	68.5	36



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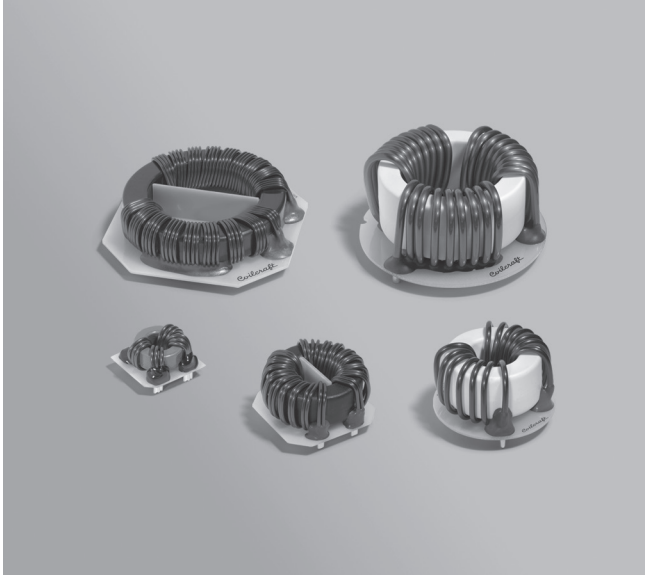
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# High Current Common Mode Chokes



- 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 30 MHz
- Excellent current ratings – up to 40 A
- Isolation (hipot) up to 3250 Vrms

**Core material** See part number page for details

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

**Weight** See part number page for details

**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)

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

Part number	Inductance <sup>1</sup> min (µH)	DCR <sup>3</sup> max (mOhms)	Irms <sup>2</sup> (A)	Isolation <sup>4</sup> (Vrms)	Length max (mm)	Width max (mm)	Height max (mm)
CMH2617-15340L	11.05	0.5	40	2500	26	26	17
CMH3923-30431L	300	1.5	31	2500	39	38	23
CMV3532-10516L	1000	5.0	16	2500	35	22	32
CMH4530-10523L	1000	2.7	23	2500	45	45	30
CMH3921-10534L	1000	1.5	34	2500	39	38	21
CMH3921-20522L	2000	3.2	22	2500	39	38	21.5
CMH3815-30516L	2400	5.5	16	2500	38.5	38.5	15.5
CMH7018-10535L	1000	2.0	35	2500	70	70	18
CMH7036-15533L	750	2.0	33	3250	70	70	36

1. Inductance shown for each winding. Measurement details are part number specific. See part number page for details.

2. 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.

3. DCR is specified per winding.

4. Isolation (hipot) measured for 1 minute.

5. Electrical specifications at 25°C.



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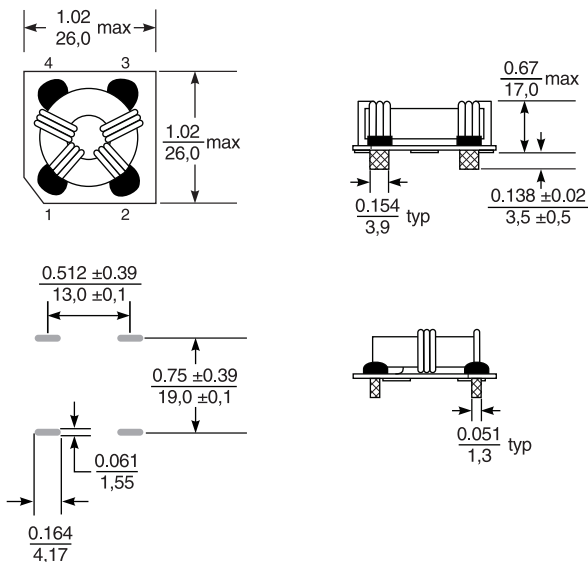
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# Common Mode Chokes – CMH2617-15340L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu$ H) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH2617-15340L	99.84 @ 1.7 MHz	11.05	40	0.5	2500

1. Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
2. 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.
3. DCR is specified per winding.
4. Isolation (hipot) measured for 1 minute.
5. Electrical specifications at 25°C.



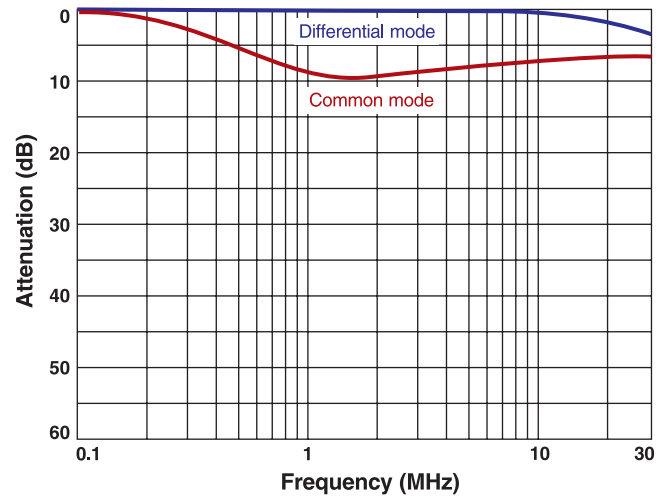
**Recommended Land Pattern** ● = Epoxy

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

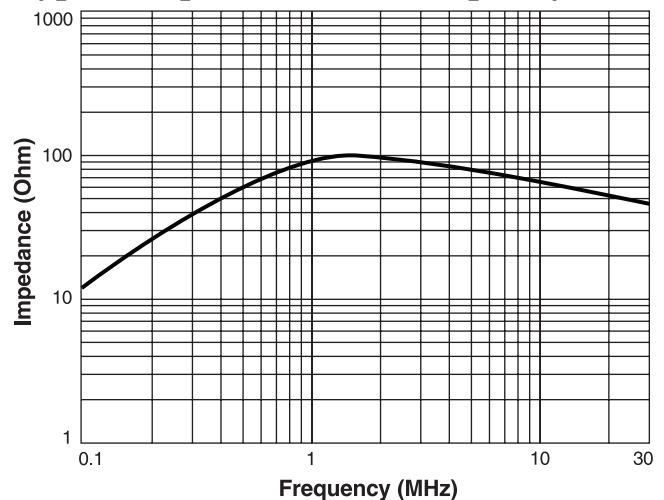
**Packaging** 96 per tray

**Core material** Ferrite  
**Weight** 13.76 g

## Typical Attenuation



## Typical Impedance versus Frequency



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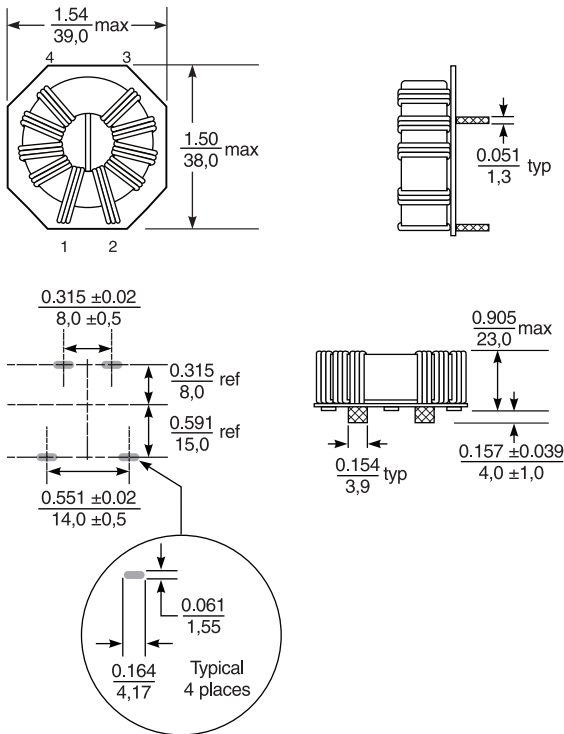
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# Common Mode Chokes – CMH3923-30431L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH3923-30431L	503 @ 2.2 MHz	300	31	1.5	2500

1. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
2. 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.
3. DCR is specified per winding.
4. Isolation (hipot) measured for 1 minute.
5. Electrical specifications at 25°C.



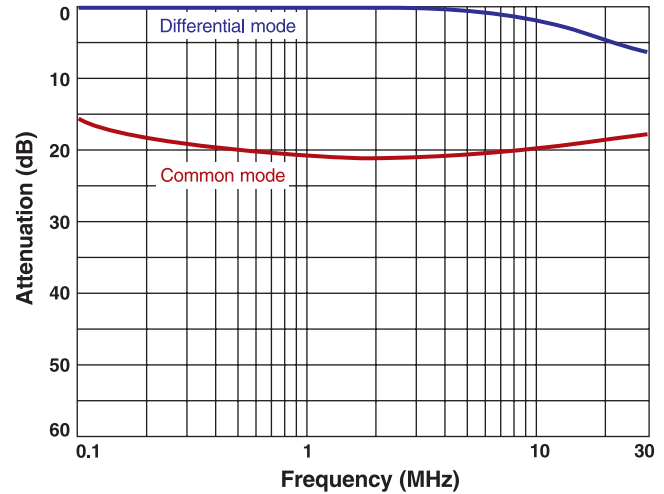
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

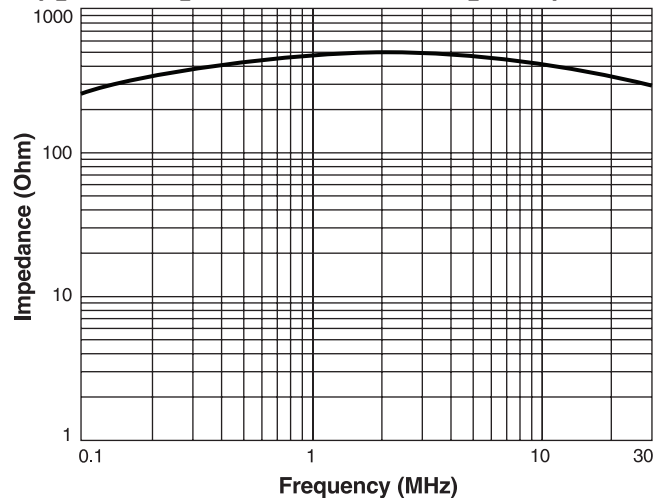
**Packaging** 36 per tray

**Core material** Ferrite  
**Weight** 53.66 g

## Typical Attenuation



## Typical Impedance versus Frequency



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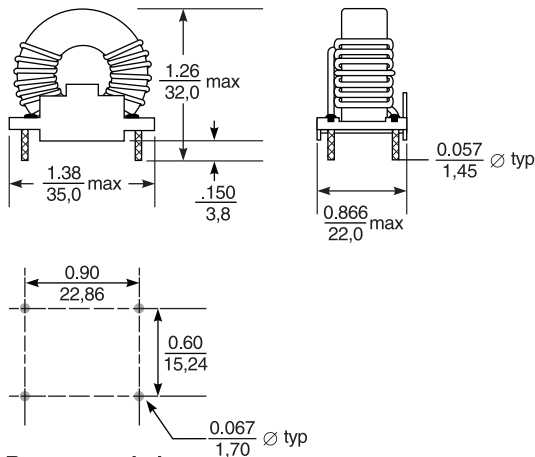
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# Common Mode Chokes – CMV3532-10516L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sub>1</sub> min	$I_{\text{rms}}^2$ (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMV3532-10516L	1870 @ 8.8 MHz	1000	16	5	2500

- Inductance shown for each winding, measured at 1 kHz, 0.1 Vrms, 0 A dc 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 1 minute.
- Electrical specifications at 25°C.



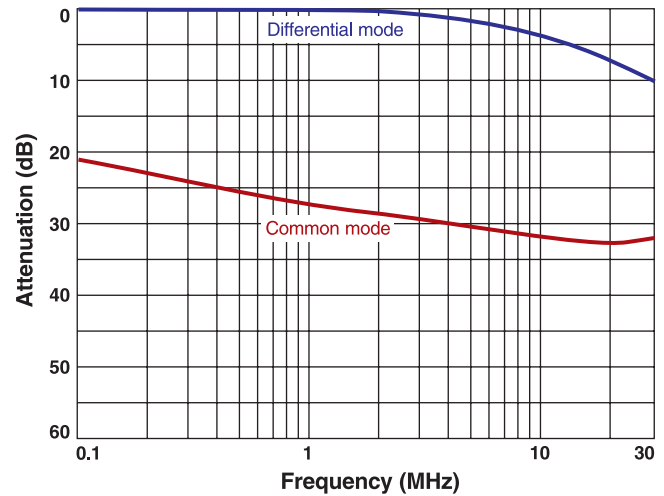
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

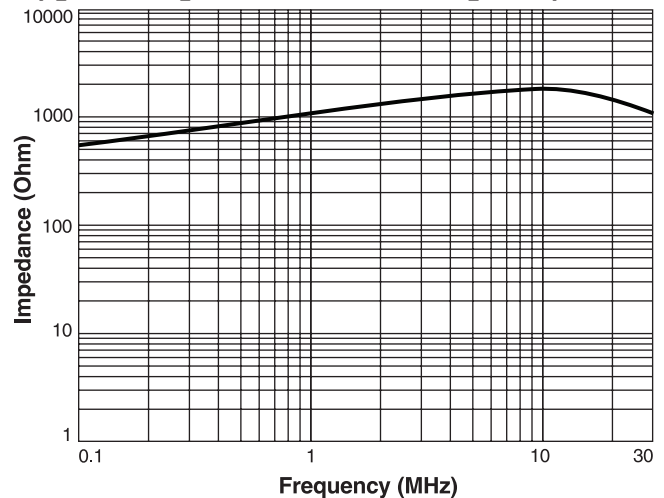
**Packaging** 49 per tray

**Core material** Nanocrystalline  
**Weight** 28.25 g

## Typical Attenuation



## Typical Impedance versus Frequency



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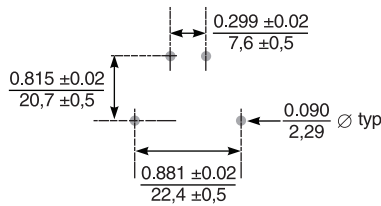
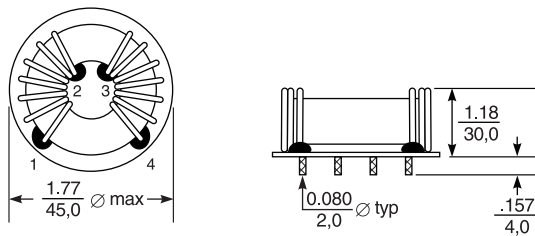
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# Common Mode Chokes – CMH4530-10523L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH4530-10523L	1967 @ 4.9 MHz	1000	23	2.7	2500

1. Inductance shown for each winding, measured at 10 kHz, 0.1 Vrms, 0 A dc on an Agilent/HP 4263B LCR meter or equivalent.
2. 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.
3. DCR is specified per winding.
4. Isolation (hipot) measured for 1 minute.
5. Electrical specifications at 25°C.



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

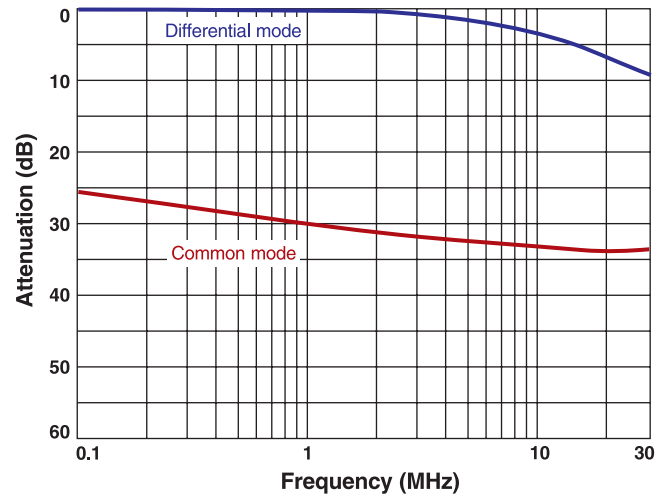
### Recommended Land Pattern

**Packaging** 20 per tray

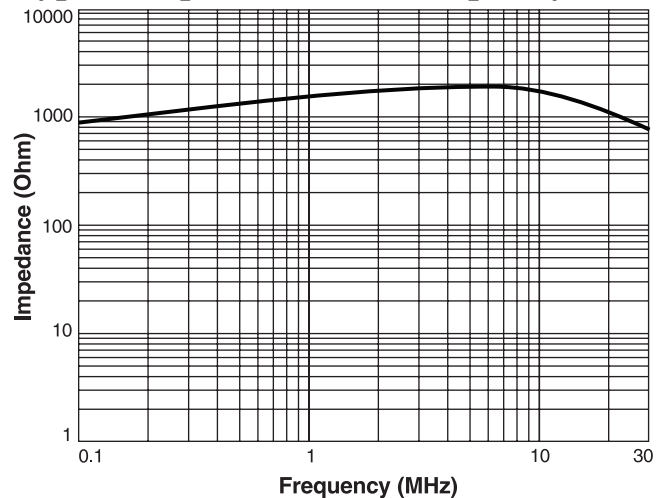
**Core material** Nanocrystalline

**Weight** 77.04 g

## Typical Attenuation



## Typical Impedance versus Frequency



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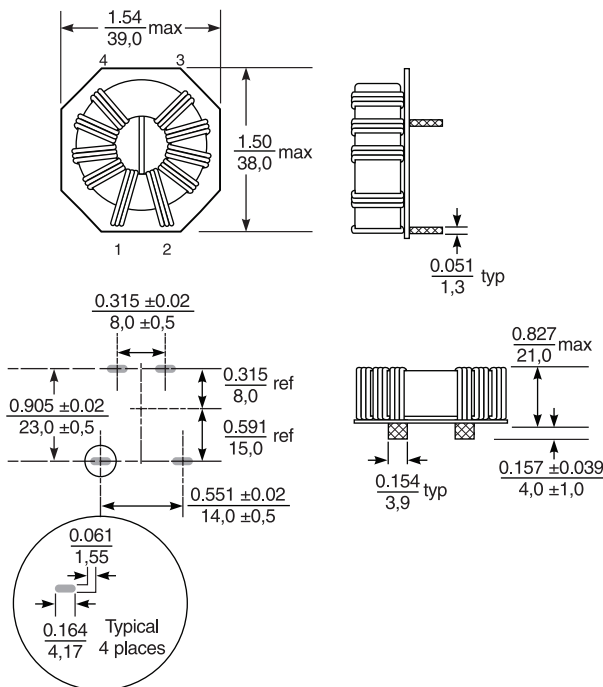
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# Common Mode Chokes – CMH3921-10534L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sup>1</sup> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH3921-10534L	1440 @ 10 MHz	1000	34	1.5	2500

- Inductance shown for each winding, measured at 10 kHz, 0.065 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 1 minutes.
- Electrical specifications at 25°C.



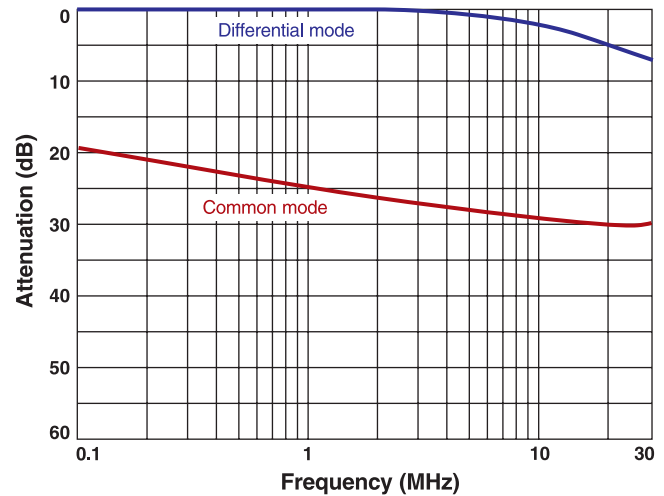
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

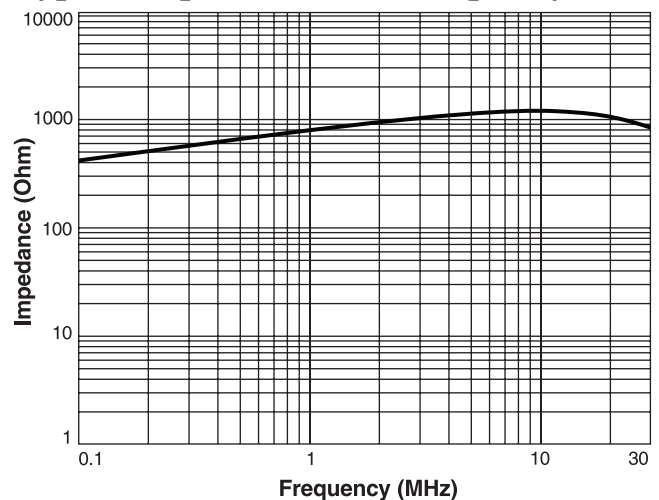
**Packaging** 36 per tray

**Core material** Nanocrystalline  
**Weight** 51.70 g

## Typical Attenuation



## Typical Impedance versus Frequency



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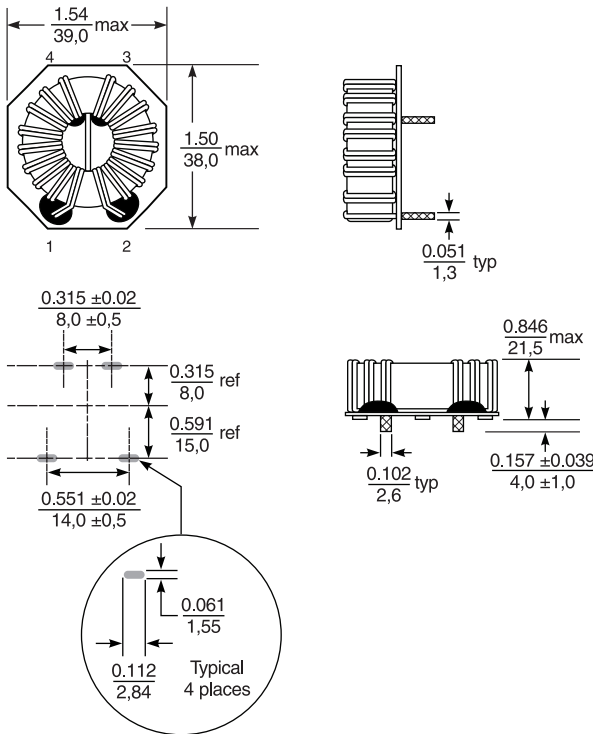
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# Common Mode Chokes CMH3921-20522L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sup>1</sup> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH3921-20522L	2870 @ 5.0 MHz	2000	22	3.2	2500

- 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 1 minute.
- Electrical specifications at 25°C.



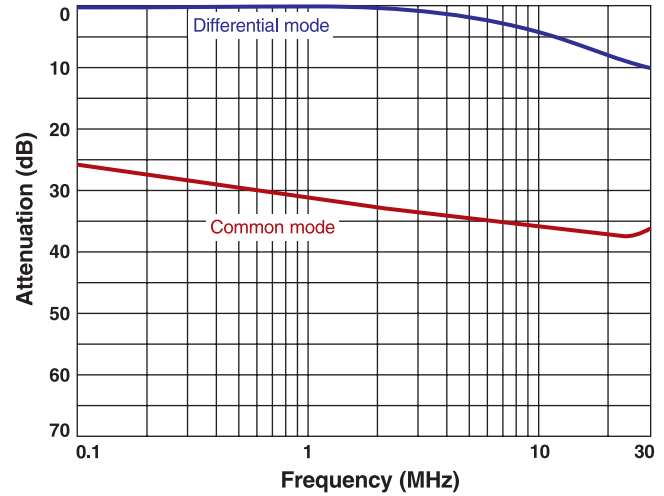
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

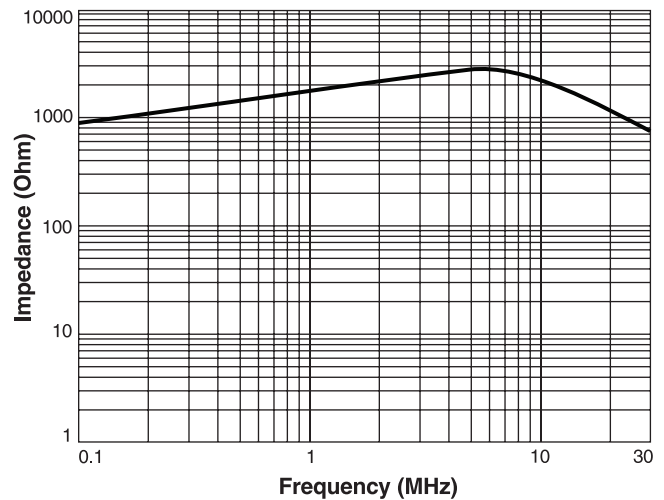
**Packaging** 36 per tray

**Core material** Nanocrystalline  
**Weight** 52.19 g

## Typical Attenuation



## Typical Impedance versus Frequency



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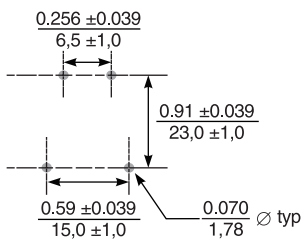
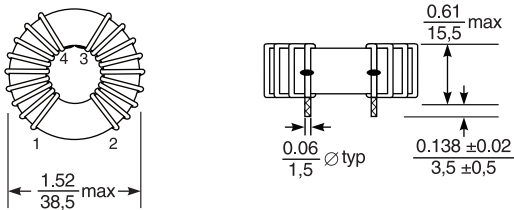




# Common Mode Chokes – CMH3815-30516L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance (μH) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH3815-30516L	1830 @ 5.7 MHz	2400	16	5.5	2500

1. Inductance shown for each winding, measured at 1 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
2. 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.
3. DCR is specified per winding.
4. Isolation (hipot) measured for 1 minute.
5. Electrical specifications at 25°C.



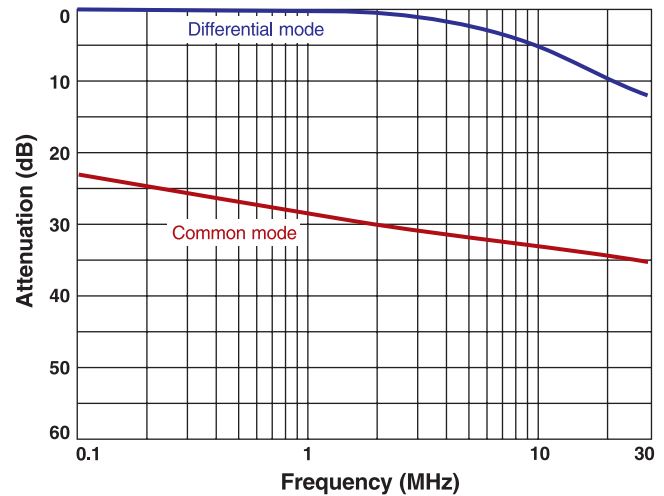
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

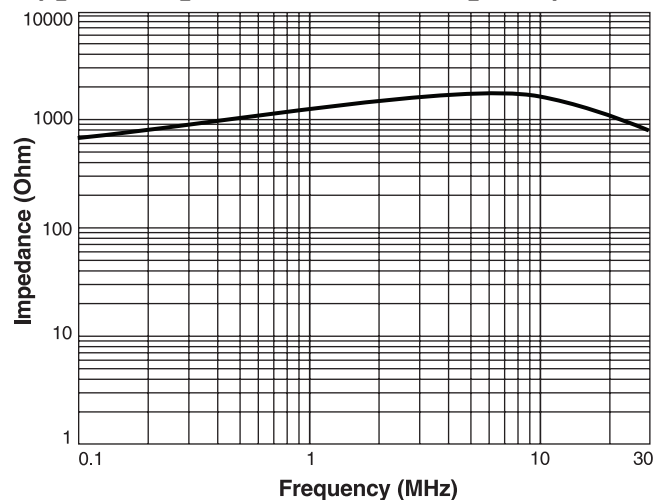
**Packaging** 36 per tray

**Core material** Nanocrystalline  
**Weight** 30.59 g

## Typical Attenuation



## Typical Impedance versus Frequency

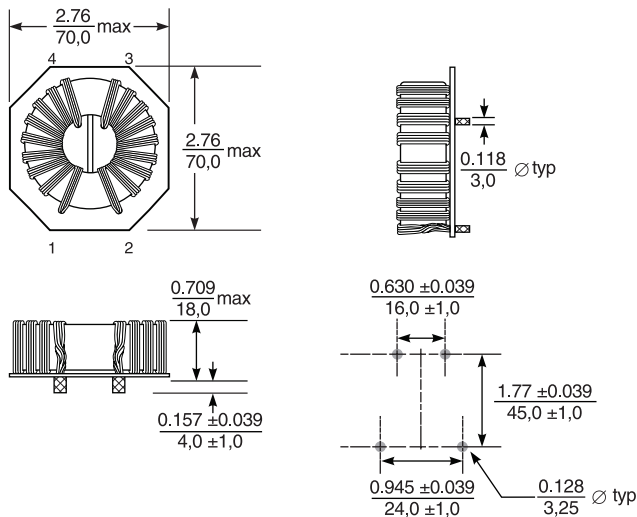




# Common Mode Chokes – CMH7018-10535L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance ( $\mu\text{H}$ ) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH7018-10535L	1040 @ 8.2 MHz	1000	35	2.0	2500

1. Inductance shown for each winding, measured at 10 kHz, 0.065 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
2. 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.
3. DCR is specified per winding.
4. Isolation (hipot) measured for 1 minute.
5. Electrical specifications at 25°C.



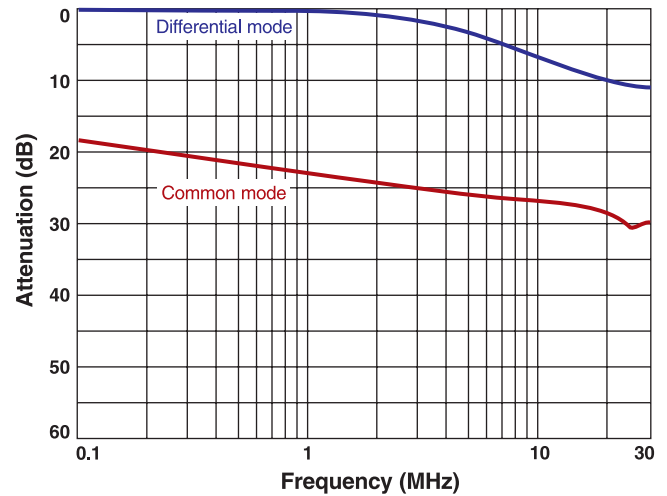
**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

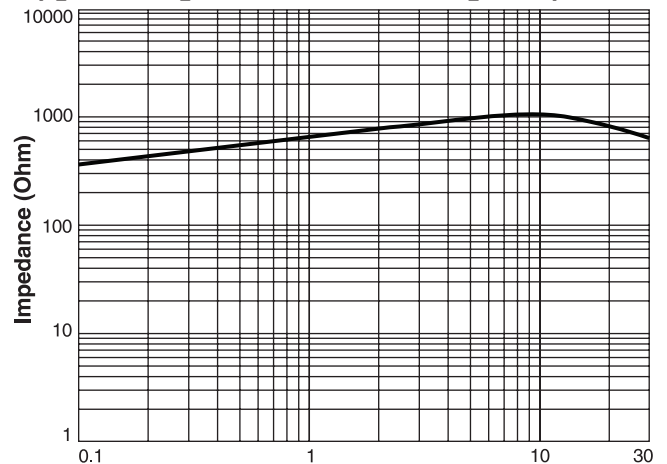
**Packaging** 9 per tray

**Core material** Nanocrystalline  
**Weight** 107.40 g

## Typical Attenuation



## Typical Impedance versus Frequency



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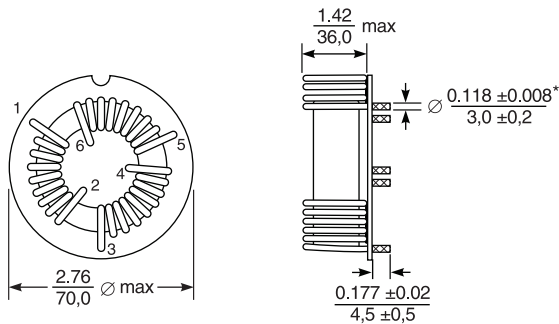
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# Common Mode Chokes – CMH7036-15533L

Part number <sup>1</sup>	Common mode impedance max (Ohms)	Inductance (μH) <sub>1</sub> min	I <sub>rms</sub> <sup>2</sup> (A)	DCR max <sup>3</sup> (mOhms)	Isolation <sup>4</sup> (Vrms)
CMH7036-15533L	2240 @ 4.4 MHz	750	33	2.0	3250

- 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 1 minute.
- Electrical specifications at 25°C.



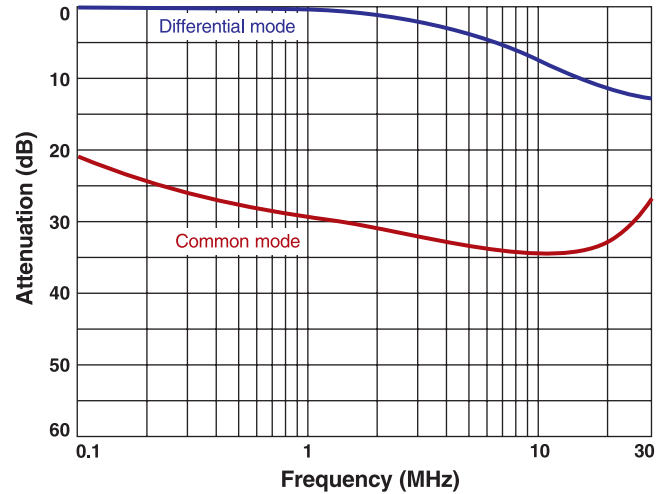
Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

\* Recommended hole diameter cutout: 0.128 / 3,25

**Packaging** 9 per tray

**Core material** Nanocrystalline  
**Weight** 223.17 g

## Typical Attenuation



## Typical Impedance versus Frequency

