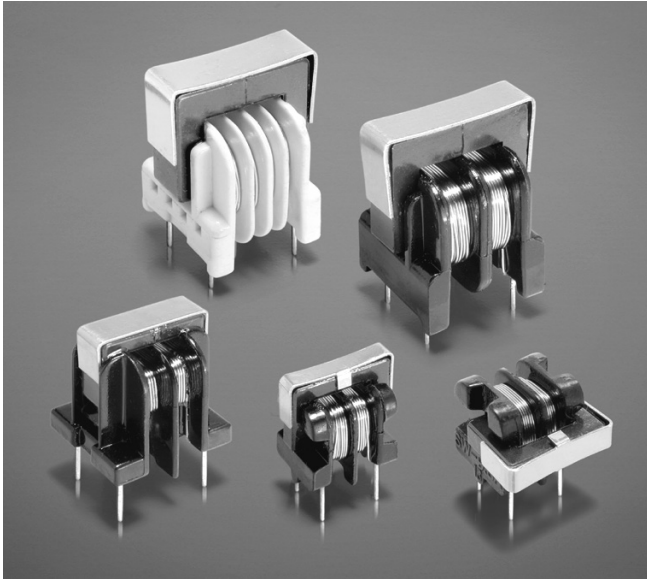


# Common Mode Chokes – BU Series



These low cost, high performance choke coils are designed to virtually eliminate line conducted common mode noise.

The BU9S and BU9HS families are ideal for signal line applications; the others can be used in switching power supplies and power supply circuits. All provide significant attenuation of common mode noise across a broad range of frequencies.

For height-restricted applications, the BU9 and BU9S filters are available in a horizontal configuration, which reduces their height to under half an inch (12.5 mm).

For free evaluation samples, contact Coilcraft or request them on-line at [www.coilcraft.com](http://www.coilcraft.com).

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over copper. Other terminations available at additional cost.

**Weight** BU9: 3.1 – 4.1 g  
 BU9H: 3.1 – 4.1 g  
 BU9HS: 3.1 – 3.8 g  
 BU9S: 3.1 – 3.8 g  
 BU10: 6.3 – 6.9 g  
 BU15: 14.6 – 16.1 g  
 BU16: 15.1 – 18.0 g

**Ambient temperature** –40°C to +125°C

**Storage temperature** Component: –40°C to +125°C.  
 Tray packaging: –40°C to +80°C

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

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** BU9: 100 per tray  
 BU9H: 100 per tray  
 BU9HS: 100 per tray  
 BU9S: 100 per tray  
 BU10: 100 per tray  
 BU15: 80 per tray  
 BU16: 80 per tray

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



[www.coilcraft.com](http://www.coilcraft.com)

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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.

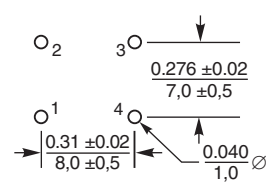
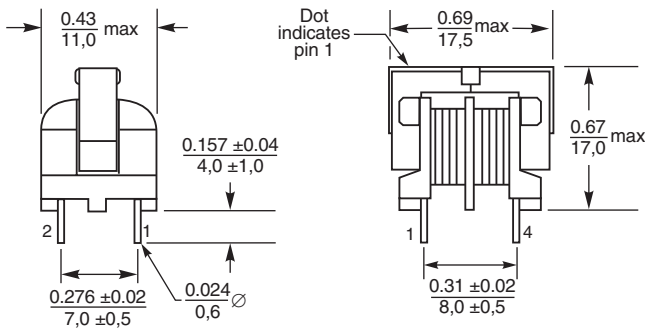


# Common Mode Chokes - BU9S, BU9HS Series

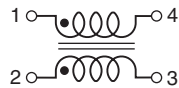
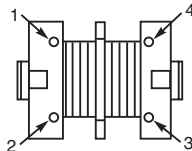
Part number	Common mode peak impedance (kOhms)	Inductance <sup>1</sup> min (mH)	DCR <sup>2</sup> (Ohms)	Isolation <sup>3</sup> (Vrms)	Current max (A)
BU9S-153R15BL	105.7 @ 200 kHz	15.0	5.0	1000	0.15
BU9S-7020R3BL	59.8 @ 370 kHz	7.0	2.5	1000	0.30
BU9HS-153R15BL	146.5 @ 220 kHz	15.0	5.0	1000	0.15
BU9HS-7020R3BL	61.9 @ 380 kHz	7.0	2.5	1000	0.30

1. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
2. DCR is per winding
3. Interwinding isolation (hipot) tested for one minute.
4. Electrical specifications at 25°C.

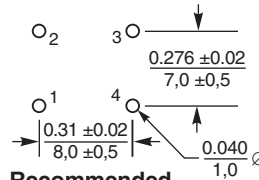
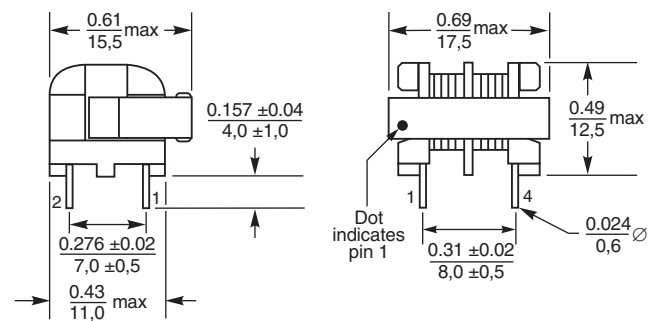
## BU9S



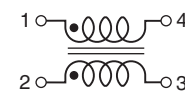
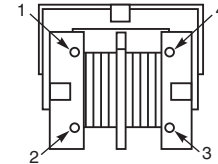
**Recommended Board Layout**



## BU9HS



**Recommended Board Layout**



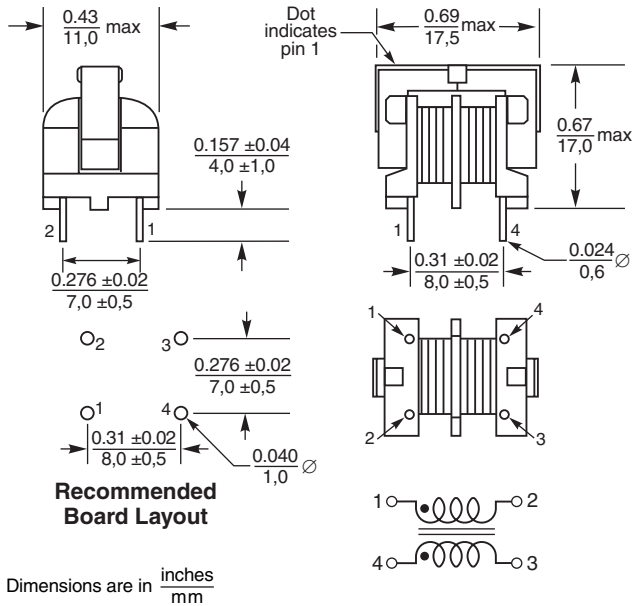


# Common Mode Chokes - BU9, BU9H Series

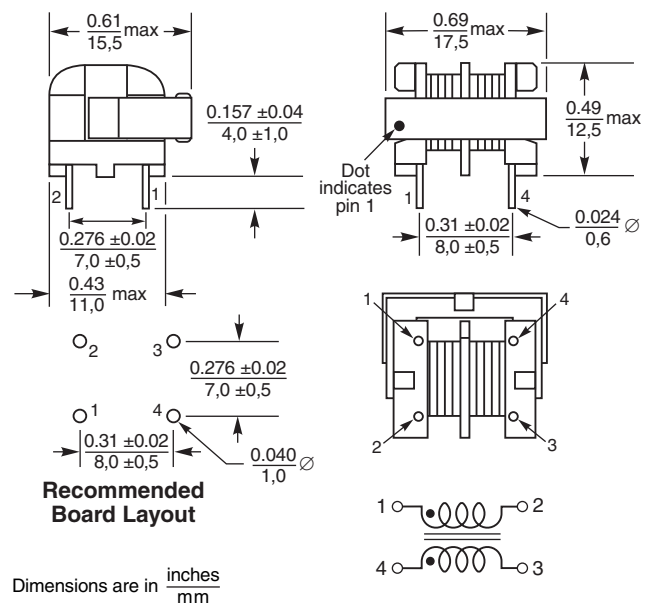
Part number	Common mode peak impedance (kOhms)	Inductance <sup>1</sup> min (mH)	DCR <sup>2</sup> (Ohms)	Isolation <sup>3</sup> (Vrms)	Current max (A)
BU9-103R25BL	123.5 @ 250 kHz	10.0	3.5	1000	0.25
BU9-2820R5BL	25.12 @ 660 kHz	2.8	1.0	1000	0.50
BU9-1320R7BL	17.33 @ 910 kHz	1.3	0.5	1000	0.70
BU9-6011R0BL	5.43 @ 2100 kHz	0.6	0.2	1000	1.00
BU9-2011R6BL	3.62 @ 4000 kHz	0.2	0.1	1000	1.60
BU9H-103R25BL	148.2 @ 230 kHz	10.0	3.5	1000	0.25
BU9H-2820R5BL	29.76 @ 600 kHz	2.8	1.0	1000	0.50
BU9H-1320R7BL	12.31 @ 980 kHz	1.3	0.5	1000	0.70
BU9H-6011R0BL	5.47 @ 2000 kHz	0.6	0.2	1000	1.00
BU9H-2011R6BL	4.43 @ 2700 kHz	0.2	0.1	1000	1.60

1. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
2. DCR is per winding
3. Interwinding isolation (hipot) tested for one minute.
4. Electrical specifications at 25°C.

## BU9



## BU9H

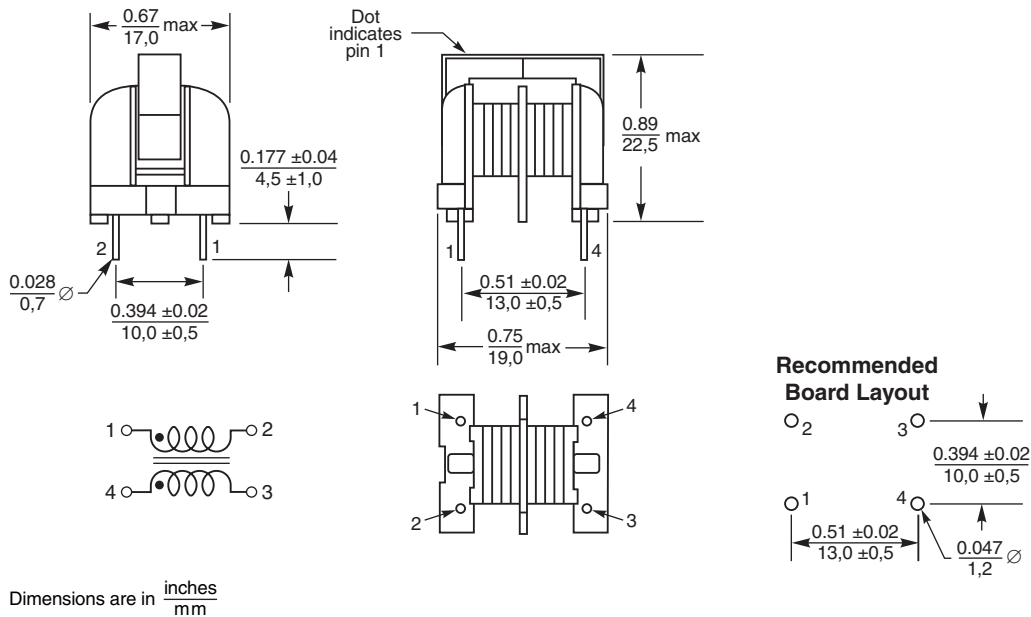




# Common Mode Chokes - BU10 Series

Part number	Common mode peak impedance (kOhms)	Inductance <sup>1</sup> min (mH)	DCR <sup>2</sup> (Ohms)	Isolation <sup>3</sup> (Vrms)	Current max (A)
BU10-1811R2BL	5.27 @ 1200 MHz	0.18	0.20	1000	1.20
BU10-1311R6BL	3.60 @ 1200 MHz	0.13	0.12	1000	1.60
BU10-1012R2BL	1.88 @ 1500 MHz	0.10	0.08	1000	2.20
BU10-6003R0BL	1.15 @ 2100 MHz	0.06	0.04	1000	3.00

1. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
2. DCR is per winding
3. Interwinding isolation (hipot) tested for one minute.
4. Electrical specifications at 25°C.

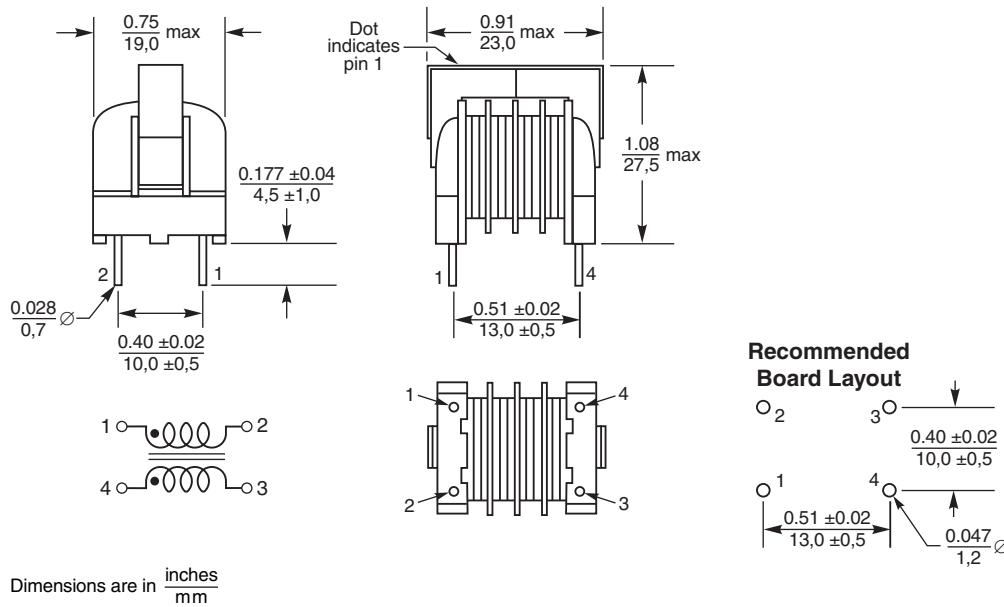




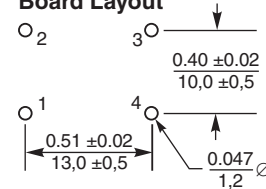
# Common Mode Chokes - BU15 Series

Part number	Common mode peak impedance (kOhms)	Inductance <sup>1</sup> min (mH)	DCR <sup>2</sup> (Ohms)	Isolation <sup>3</sup> (Vrms)	Current max (A)
BU15-4530R4BL	398.7 @ 130 kHz	45.0	3.0	1000	0.40
BU15-1430R7BL	70.58 @ 240 kHz	14.0	1.0	1000	0.70
BU15-7521R0BL	43.05 @ 340 kHz	7.5	0.6	1000	1.00
BU15-4421R3BL	41.14 @ 510 kHz	4.4	0.3	1000	1.30
BU15-2721R6BL	32.22 @ 620 kHz	2.7	0.2	1000	1.60

1. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
2. DCR is per winding
3. Interwinding isolation (hipot) tested for one minute.
4. Electrical specifications at 25°C.



### Recommended Board Layout

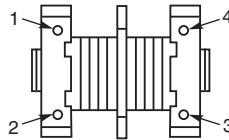
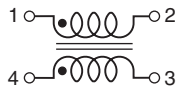
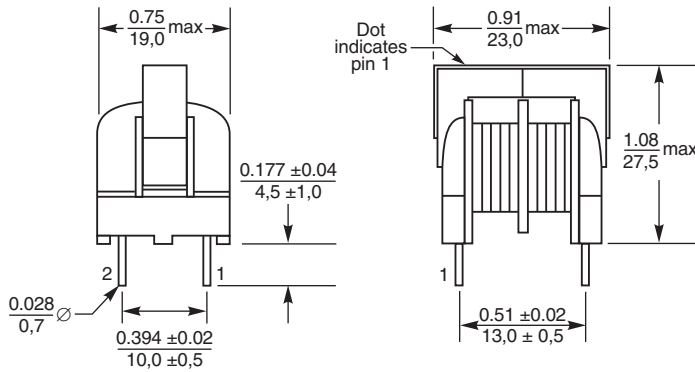




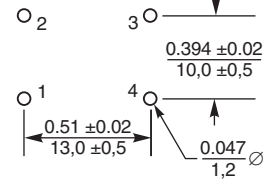
# Common Mode Chokes - BU16 Series

Part number	Common mode peak impedance (kOhms)	Inductance <sup>1</sup> min (mH)	DCR <sup>2</sup> (Ohms)	Isolation <sup>3</sup> (Vrms)	Current max (A)
BU16-4530R5BL	269.6 @ 130 kHz	45.0	2.3	1000	0.50
BU16-2530R7BL	208.3 @ 190 kHz	25.0	1.3	1000	0.70
BU16-1031R0BL	57.14 @ 310 kHz	10.0	0.5	1000	1.00
BU16-4021R5BL	26.26 @ 470 kHz	4.0	0.3	1000	1.50
BU16-2022R0BL	14.47 @ 720 kHz	2.0	0.2	1000	2.00

1. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
2. DCR is per winding
3. Interwinding isolation (hipot) tested for one minute.
4. Electrical specifications at 25°C.



### Recommended Board Layout



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