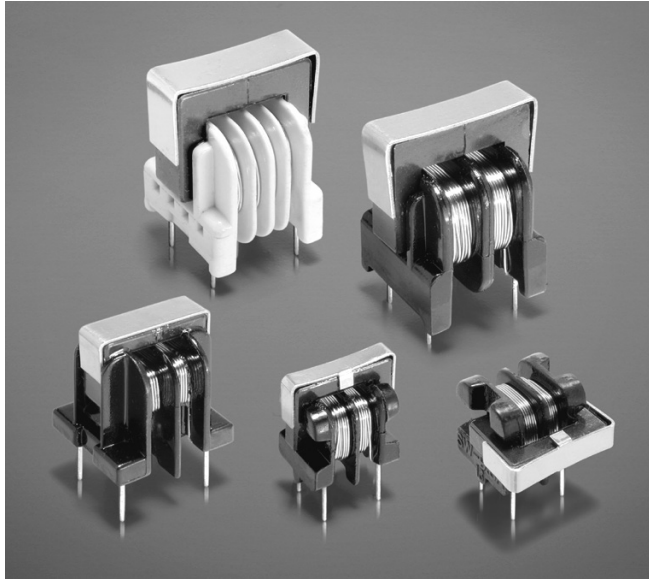


Common Mode Chokes – BU Series



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.

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

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Document 260-1 Revised 09/12/17

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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.

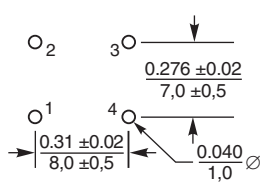
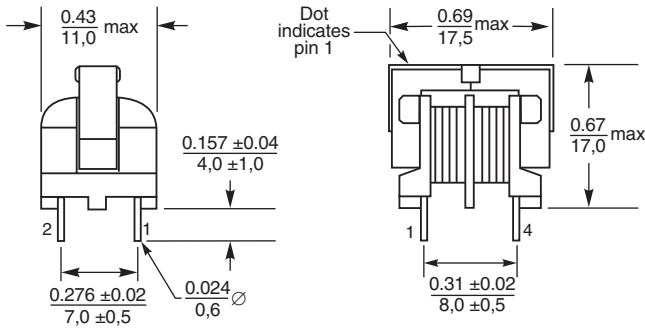


Common Mode Chokes - BU9S, BU9HS Series

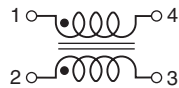
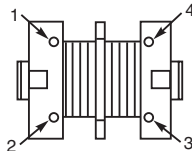
| Part number | Common mode peak impedance (kOhms) | Inductance ¹ min (mH) | DCR ² (Ohms) | Isolation ³ (Vrms) | Current max (A) |
|----------------|------------------------------------|----------------------------------|-------------------------|-------------------------------|-----------------|
| BU9S-153R15BL | 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.

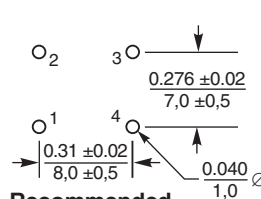
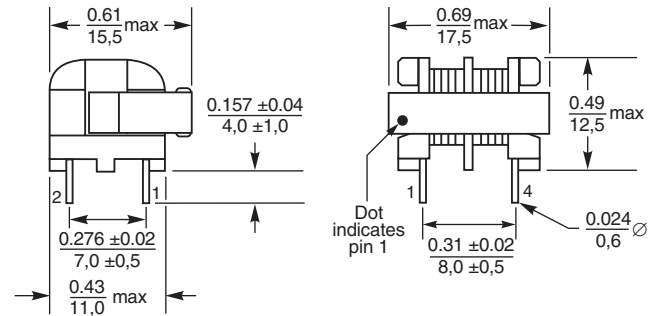
BU9S



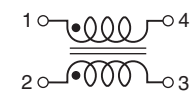
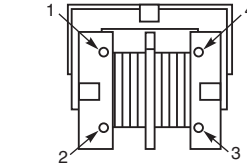
Recommended Board Layout



BU9HS



Recommended Board Layout



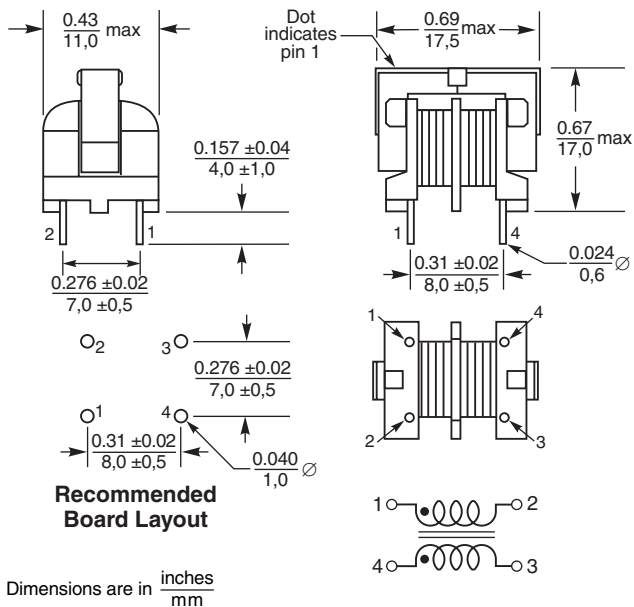


Common Mode Chokes - BU9, BU9H Series

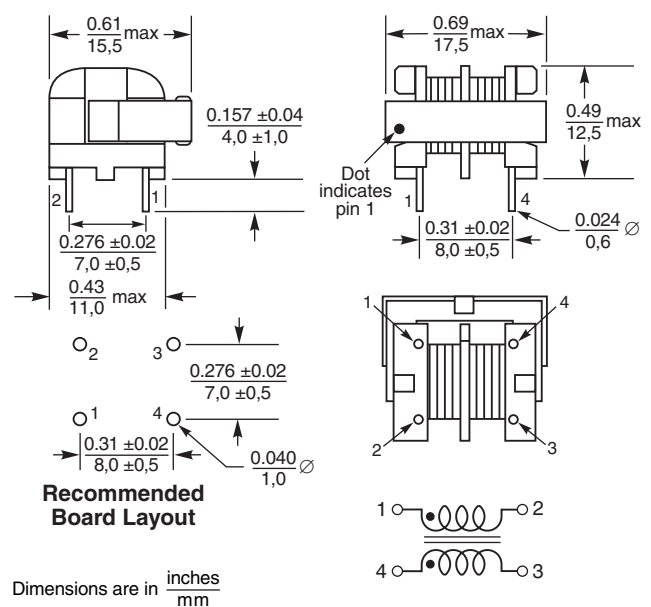
| Part number | Common mode peak impedance (kOhms) | Inductance ¹ min (mH) | DCR ² (Ohms) | Isolation ³ (Vrms) | Current max (A) |
|---------------|------------------------------------|----------------------------------|-------------------------|-------------------------------|-----------------|
| BU9-103R25BL | 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

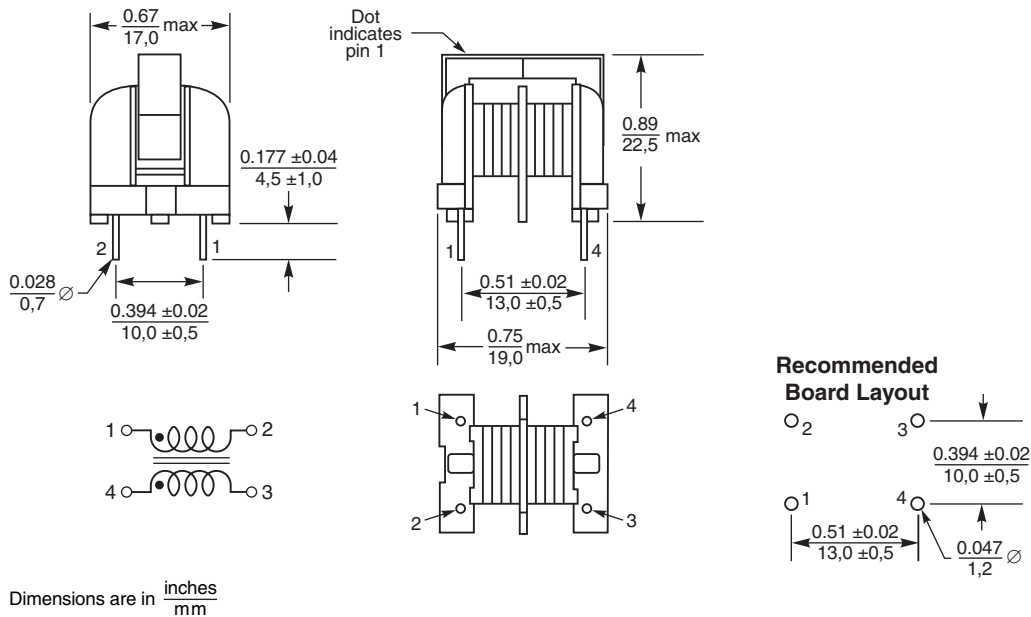




Common Mode Chokes - BU10 Series

| Part number | Common mode peak impedance (kOhms) | Inductance ¹ min (mH) | DCR ² (Ohms) | Isolation ³ (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.

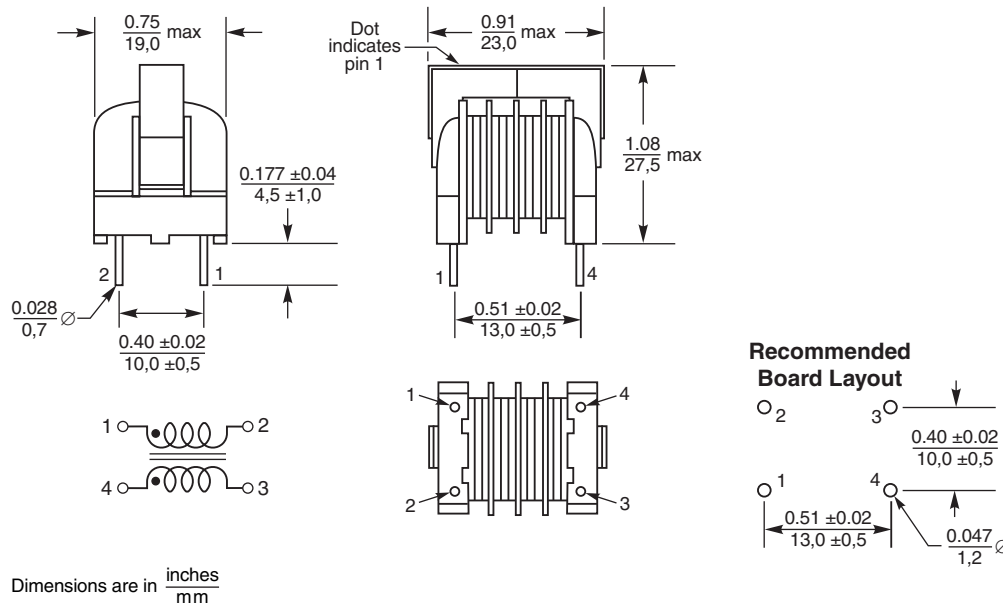




Common Mode Chokes - BU15 Series

| Part number | Common mode peak impedance (kOhms) | Inductance ¹ min (mH) | DCR ² (Ohms) | Isolation ³ (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.

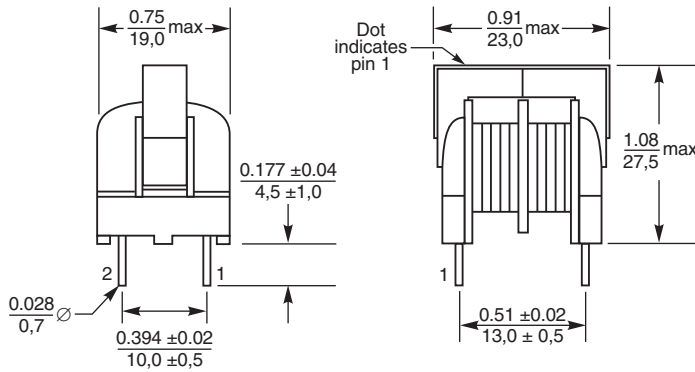




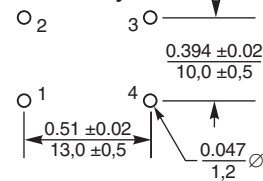
Common Mode Chokes - BU16 Series

| Part number | Common mode peak impedance (kOhms) | Inductance ¹ min (mH) | DCR ² (Ohms) | Isolation ³ (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 $\frac{\text{inches}}{\text{mm}}$



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