



# 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: 6.2 – 6.6 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.  
 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** Only pure water or alcohol recommended

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
 Please check our website for latest information.

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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

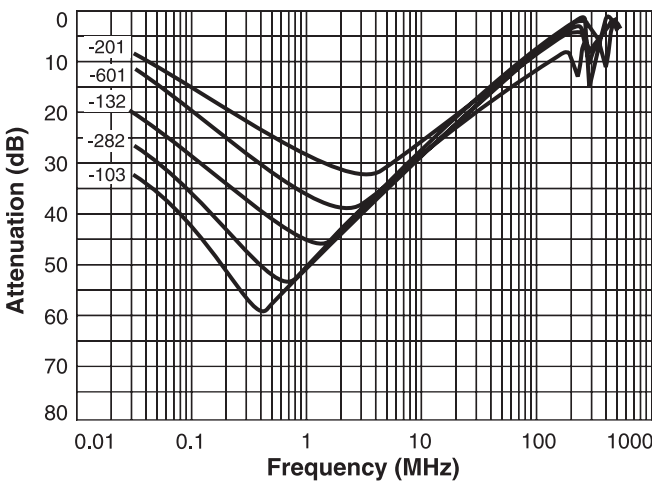


# Common Mode Chokes - BU9, BU9H Series

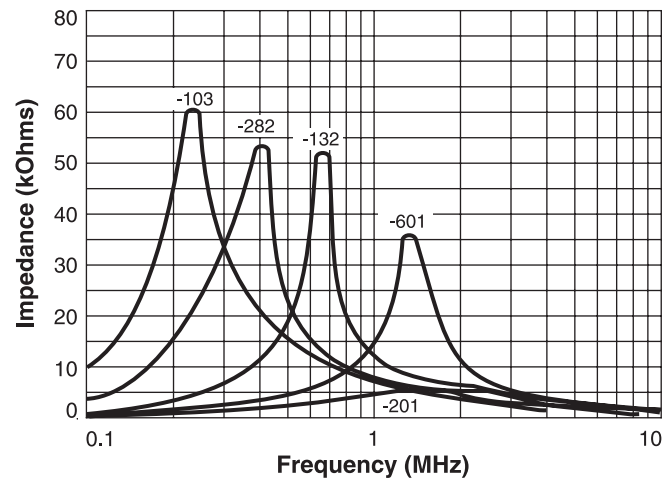
| Part number   | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR <sup>1</sup> (Ohms) | Current max (Aac) | Inductance <sup>2</sup> L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU9-103R25BL  | 60 @ 220 kHz          | 200 – 240 kHz                          | 3.5                     | 0.25              | 10.0                                    | 200                                    |
| BU9-2820R5BL  | 53 @ 410 kHz          | 310 – 430 kHz                          | 1.0                     | 0.50              | 2.8                                     | 50                                     |
| BU9-1320R7BL  | 52 @ 660 kHz          | 600 – 700 kHz                          | 0.5                     | 0.70              | 1.3                                     | 50                                     |
| BU9-6011R0BL  | 36 @ 1300 kHz         | 1200 – 1400 kHz                        | 0.2                     | 1.00              | 0.6                                     | 25                                     |
| BU9-2011R6BL  | 5.4 @ 1500 kHz        | 900 – 2100 kHz                         | 0.1                     | 1.60              | 0.2                                     | 25                                     |
| BU9H-103R25BL | 60 @ 220 kHz          | 200 – 240 kHz                          | 3.5                     | 0.25              | 10.0                                    | 200                                    |
| BU9H-2820R5BL | 53 @ 410 kHz          | 310 – 430 kHz                          | 1.0                     | 0.50              | 2.8                                     | 50                                     |
| BU9H-1320R7BL | 52 @ 660 kHz          | 600 – 700 kHz                          | 0.5                     | 0.70              | 1.3                                     | 50                                     |
| BU9H-6011R0BL | 36 @ 1300 kHz         | 1200 – 1400 kHz                        | 0.2                     | 1.00              | 0.6                                     | 25                                     |
| BU9H-2011R6BL | 5.4 @ 1500 kHz        | 900 – 2100 kHz                         | 0.1                     | 1.60              | 0.2                                     | 25                                     |

1. DCR is per winding
2. Inductance tested at 1 kHz, 1 Vrms, 0 Aac on an Agilent/HP 4284A LCR-meter or equivalent.
3. 1000 Vrms typical isolation between windings.
4. Electrical specifications at 25°C.

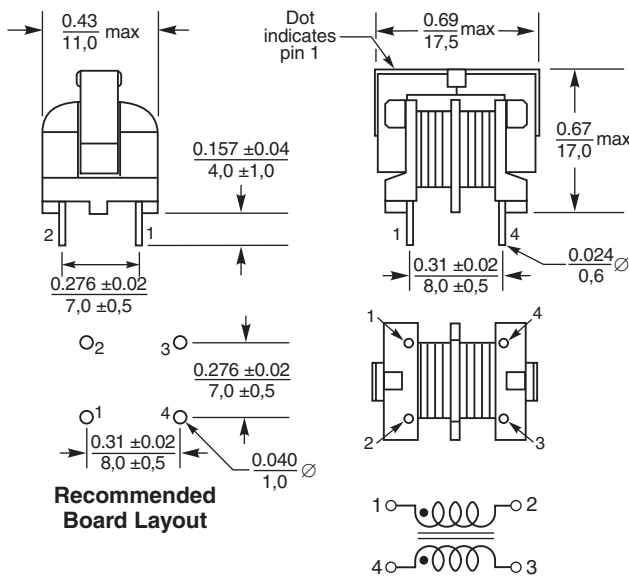
## Typical Attenuation



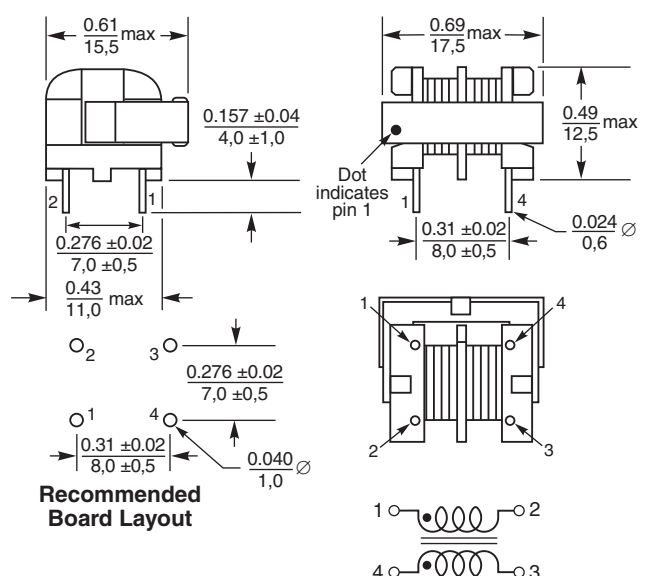
## Typical Impedance



### BU9



### BU9H



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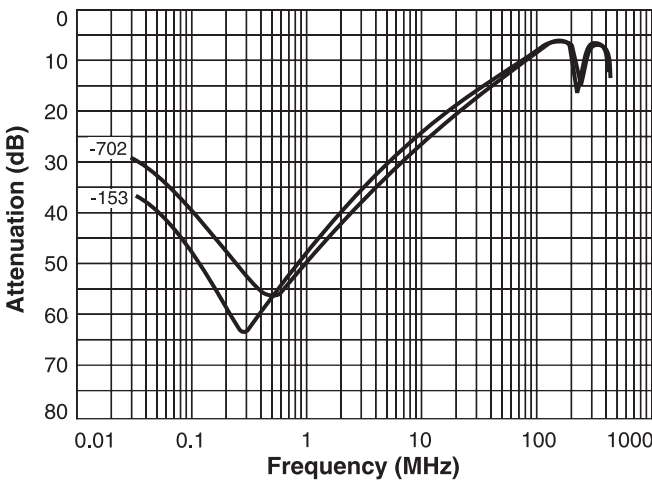


# Common Mode Chokes - BU9S, BU9HS Series

| Part number    | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR <sup>1</sup> (Ohms) | Current max (Aac) | Inductance <sup>2</sup> L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|----------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU9S-153R15BL  | 71 @ 210 kHz          | 190 – 230 kHz                          | 5.0                     | 0.15              | 15.0                                    | 300                                    |
| BU9S-7020R3BL  | 66 @ 330 kHz          | 300 – 360 kHz                          | 2.5                     | 0.30              | 7.0                                     | 200                                    |
| BU9HS-153R15BL | 71 @ 210 kHz          | 190 – 230 kHz                          | 5.0                     | 0.15              | 15.0                                    | 300                                    |
| BU9HS-7020R3BL | 66 @ 330 kHz          | 300 – 360 kHz                          | 2.5                     | 0.30              | 7.0                                     | 200                                    |

1. DCR is per winding
2. Inductance tested at 1 kHz, 1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
3. 1000 Vrms typical isolation between windings.
4. Electrical specifications at 25°C.

## Typical Attenuation



## Typical Impedance



### BU9S



### BU9HS



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# Common Mode Chokes - BU10 Series

| Part number   | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR <sup>1</sup> (Ohms) | Current max (Aac) | Inductance <sup>2</sup> L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU10-1811R2BL | 3.9 @ 1.8 MHz         | 1000 – 3200 kHz                        | 0.20                    | 1.20              | 0.18                                    | 30                                     |
| BU10-1311R6BL | 2.2 @ 2.2 MHz         | 800 – 2000 kHz                         | 0.12                    | 1.60              | 0.13                                    | 20                                     |
| BU10-1012R2BL | 1.6 @ 3.1 MHz         | 1300 – 8900 kHz                        | 0.08                    | 2.20              | 0.10                                    | 15                                     |
| BU10-6003R0BL | 1.0 @ 3.0 MHz         | 800 – 10000 kHz                        | 0.04                    | 3.00              | 0.06                                    | 10                                     |

1. DCR is per winding
2. Inductance tested at 1 kHz, 1 Vrms, 0 Aac on an Agilent/HP 4284A LCR-meter or equivalent.
3. 1000 Vrms typical isolation between windings.
4. Electrical specifications at 25°C.

## Typical Attenuation



## Typical Impedance



### Recommended Board Layout



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# Common Mode Chokes - BU15 Series

| Part number   | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR <sup>1</sup> (Ohms) | Current max (Aac) | Inductance <sup>2</sup> L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU15-4530R4BL | 400 @ 230 kHz         | 140 – 160 kHz                          | 3.0                     | 0.40              | 45.0                                    | 300                                    |
| BU15-1430R7BL | 115 @ 470 kHz         | 400 – 650 kHz                          | 1.0                     | 0.70              | 14.0                                    | 300                                    |
| BU15-7521R0BL | 60 @ 600 kHz          | 420 – 720 kHz                          | 0.6                     | 1.00              | 7.5                                     | 150                                    |
| BU15-4421R3BL | 36 @ 670 kHz          | 430 – 1000 kHz                         | 0.3                     | 1.30              | 4.4                                     | 100                                    |
| BU15-2721R6BL | 20 @ 1000 kHz         | 510 – 1400 kHz                         | 0.2                     | 1.60              | 2.7                                     | 60                                     |

1. DCR is per winding
2. Inductance tested at 1 kHz, 1 Vrms, 0 Aac on an Agilent/HP 4284A LCR-meter or equivalent.
3. 1000 Vrms typical isolation between windings.
4. Electrical specifications at 25°C.

## Typical Attenuation



## Typical Impedance



### Recommended Board Layout



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# Common Mode Chokes - BU16 Series

| Part number   | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR <sup>1</sup> (Ohms) | Current max (Aac) | Inductance <sup>2</sup> L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU16-4530R5BL | 285 @ 150 kHz         | 140 – 160 kHz                          | 2.3                     | 0.50              | 45.0                                    | 900                                    |
| BU16-2530R7BL | 120 @ 200 kHz         | 160 – 220 kHz                          | 1.3                     | 0.70              | 25.0                                    | 500                                    |
| BU16-1031R0BL | 60 @ 320 kHz          | 260 – 390 kHz                          | 0.5                     | 1.00              | 10.0                                    | 200                                    |
| BU16-4021R5BL | 20 @ 470 kHz          | 360 – 600 kHz                          | 0.3                     | 1.50              | 4.0                                     | 80                                     |
| BU16-2022R0BL | 11 @ 690 kHz          | 450 – 900 kHz                          | 0.2                     | 2.00              | 2.0                                     | 50                                     |

1. DCR is per winding
2. Inductance tested at 1 kHz, 1 Vrms, 0 Aac on an Agilent/HP 4284A LCR-meter or equivalent.
3. 1000 Vrms typical isolation between windings.
4. Electrical specifications at 25°C.

## Typical Attenuation



## Typical Impedance



### Recommended Board Layout



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Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: [ocean@oceanchips.ru](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А