



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: 6.2 – 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

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Specifications subject to change without notice.
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Document 260-1 Revised 09/09/09

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Common Mode Chokes - BU9, BU9H Series

| Part number | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR ¹ (Ohms) | Current max (Aac) | Inductance ² 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.

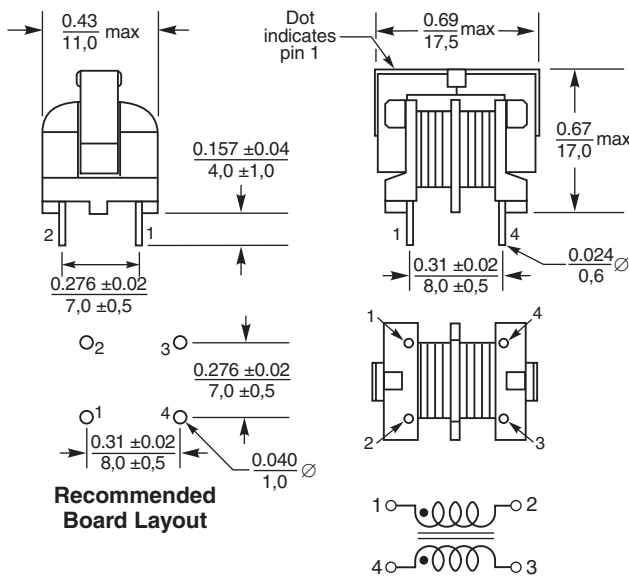
Typical Attenuation



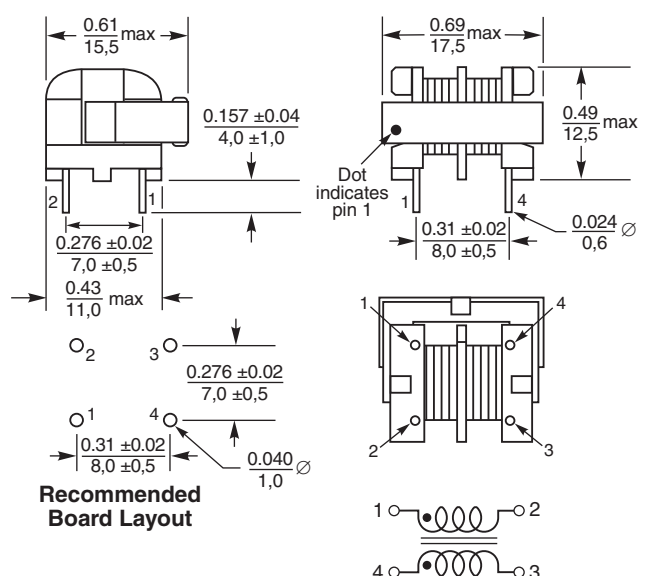
Typical Impedance



BU9



BU9H



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Document 260-2 Revised 09/09/09

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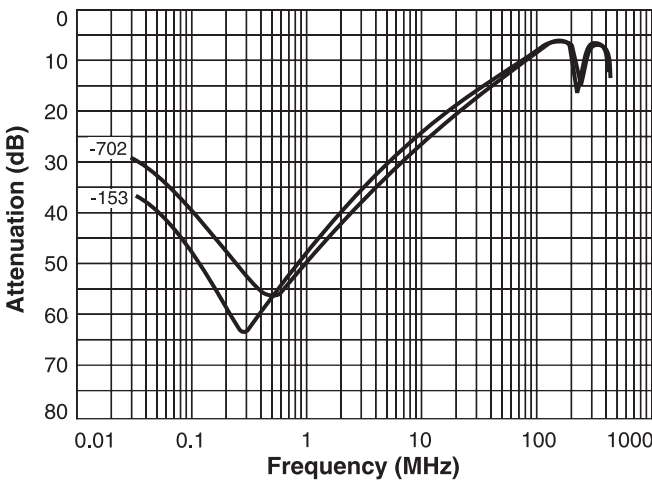


Common Mode Chokes - BU9S, BU9HS Series

| Part number | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR ¹ (Ohms) | Current max (Aac) | Inductance ² 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 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



BU9S



BU9HS



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Document 260-3 Revised 09/09/09

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Common Mode Chokes - BU10 Series

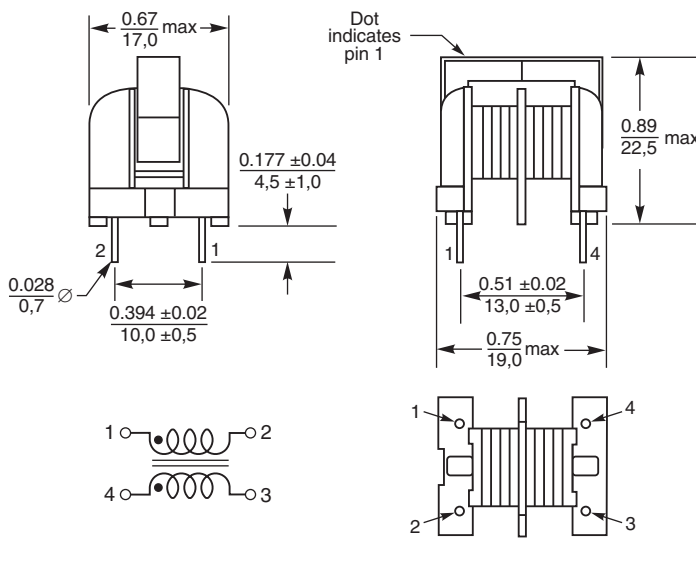
| Part number | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR ¹ (Ohms) | Current max (Aac) | Inductance ² L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU10-1811R2BL | 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 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



Recommended Board Layout



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Document 260-4 Revised 09/09/09

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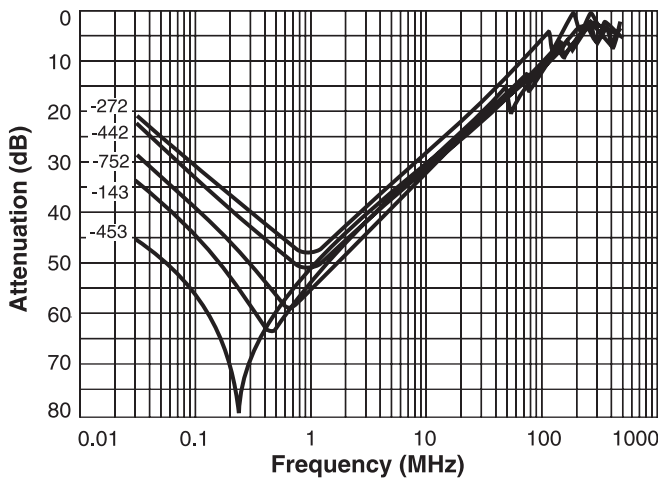


Common Mode Chokes - BU15 Series

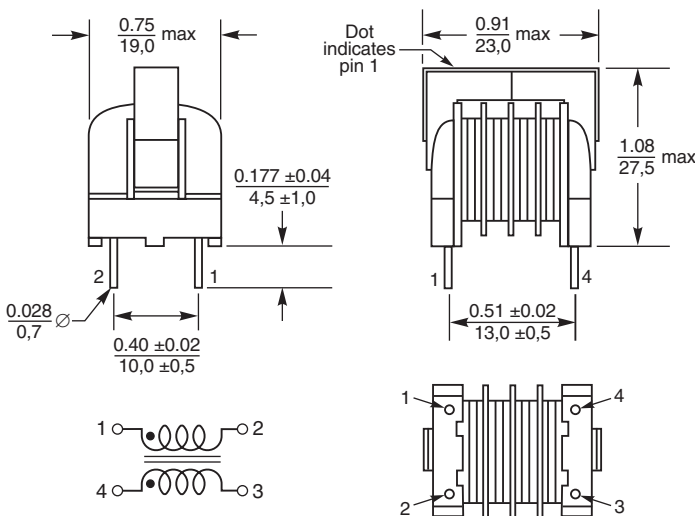
| Part number | Impedance max (kOhms) | Frequency range @ 75% of impedance max | DCR ¹ (Ohms) | Current max (Aac) | Inductance ² L1, L2 min (mH) | Inductance difference L1 - L2 max (µH) |
|---------------|-----------------------|--|-------------------------|-------------------|---|--|
| BU15-4530R4BL | 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 ¹ (Ohms) | Current max (Aac) | Inductance ² 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.

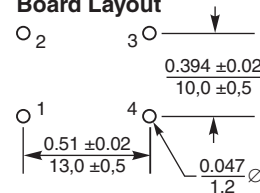
Typical Attenuation



Typical Impedance



Recommended Board Layout



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Document 260-6 Revised 09/09/09

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Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



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).



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