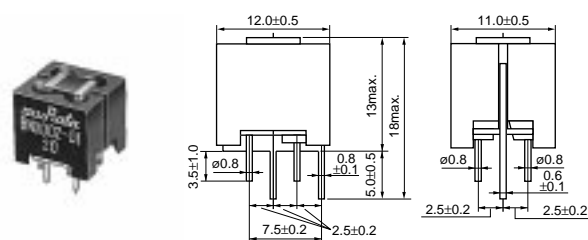


BNX Series

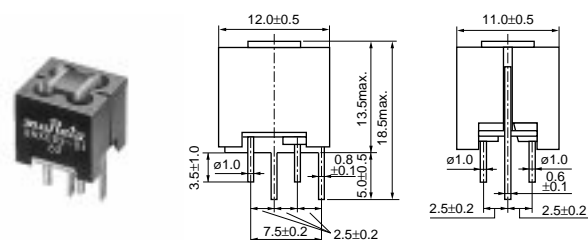
■ Features

1. The "EMIFIL" BNX002 incorporates a through-type barrier layer capacitor and a four-terminal capacitor which are interconnected. This combination enables the BNX002 to achieve a significantly large insertion loss throughout the extremely wide frequency range of 0.5MHz to 1GHz which covers the AM and UHF-TV broadcast frequency bands.
2. The filter is extremely compact since only one filter block is needed to completely eliminate noise from both the positive and negative lines.
3. There are no connection routes in the current circuits, thus ensuring highly reliable performance.
4. Both the input/output terminals and the grounding terminal are aligned in the same direction, permitting fast and easy installation on any type of P.C. board.
5. BNX003-01 features high dielectric constant, that is the rated voltage 150V.



BNX002/BNX003

(in mm)



BNX005

(in mm)

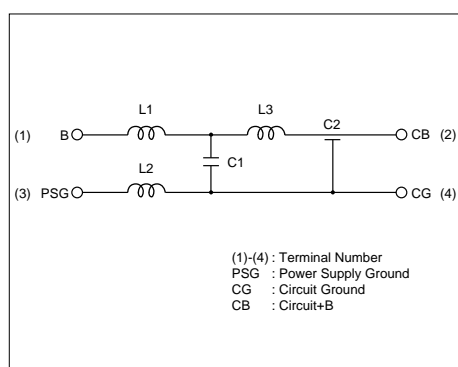
■ Applications

Noise elimination from DC power sources in a variety of switching power sources, engine control units, digital equipment and computer terminals.

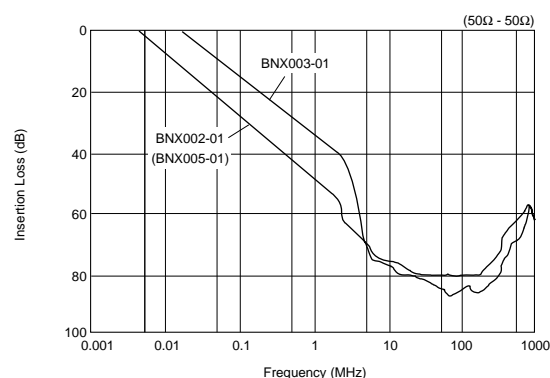
| Part Number | Rated Voltage (Vdc) | Withstand Voltage (Vdc) | Rated Current (A) | Insulation Resistance (min.) (M ohm) | Insertion Loss |
|-------------|---------------------|-------------------------|-------------------|--------------------------------------|--|
| BNX002-01 | 50 | 125 | 10 | 100 | 1MHz to 1GHz: 40dB min. (20 to 25°C line impedance=50 ohm) |
| BNX003-01 | 150 | 375 | 10 | 100 | 5MHz to 1GHz: 40dB min. (20 to 25°C line impedance=50 ohm) |
| BNX005-01 | 50 | 125 | 15 | 100 | 1MHz to 1GHz: 40dB min. (20 to 25°C line impedance=50 ohm) |

Operating Temperature Range : -30°C to 85°C

■ Equivalent Circuit

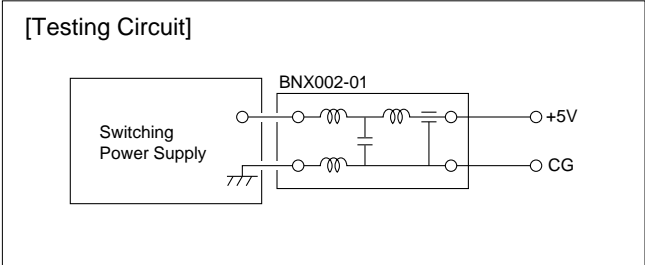


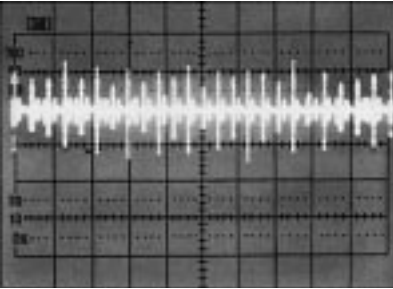
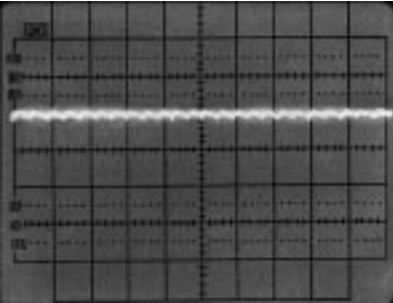
■ Insertion Loss Characteristics (Typical)



Noise Suppression Effect of BNX Series

■Suppression of DC Side
Ripple of the Switching Power Supply



| Type of Filter | EMI Suppression Effect | Description |
|--------------------------------|--|---|
| When BNX002 is not used | <div><div>+5.0V → 50μs/div 0.2V/div</div></div> | High frequency noise, max. 0.5V, can be seen. |
| When BNX002 is used | <div><div>+5.0V → 50μs/div 0.2V/div</div></div> | Noise can be almost suppressed by BNX002. |