

EMI SUPPRESSION FILTER



Signal Line Noise Filter NfV510 Series

Compact and High Performance. Effective for High-speed Digital Signal Lines.

NfV510 series signal line EMIFIL an efficient noise suppression filter for high-speed digital signal lines where frequencies of signal elements and noise elements are very close.

Murata has combined its superior inductor and capacitor technologies with a unique circuit configuration to realize outstanding noise suppression effect.

NfV510 series EMIFILs meet the noise suppression regulations of FCC, CISPR for digital video signal line.

FEATURES

1. Steep attenuation characteristics make this filter most suitable as suppressors for unwanted radiation in signal lines without attenuating signal elements.
2. Larger attenuation is obtained through the use of Murata's unique high performance inductors.
3. 4 types classified by cut-off frequencies from 10MHz to 100MHz allow you to obtain optimum noise suppression.

APPLICATIONS

Noise suppression for RGB signal lines, digital image equipment, computer terminals, digital TVs, etc.

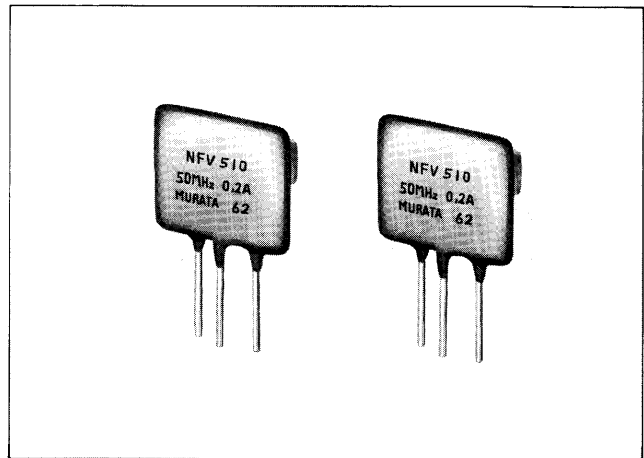
PART NUMBERING

(*Please specify the part number when ordering)

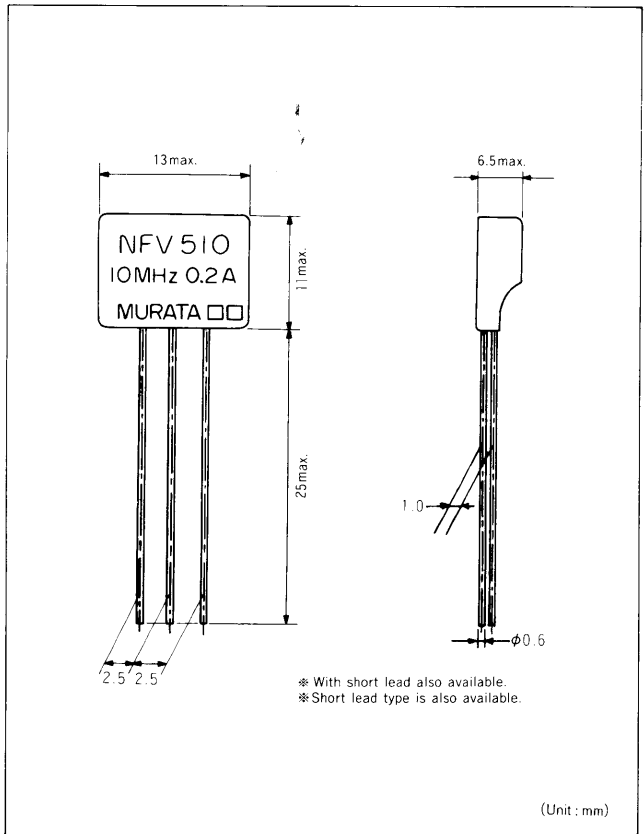
NfV510 - **655** **T** **2A** **106**

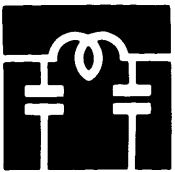
① ② ③ ④ ⑤

- ① Signal Line EMIFIL
- ② Lead Configuration
- ③ Circuit Construction
- ④ Rated Voltage
- ⑤ Cut-off Frequencies



DIMENSIONS





EMI SUPPRESSION FILTER

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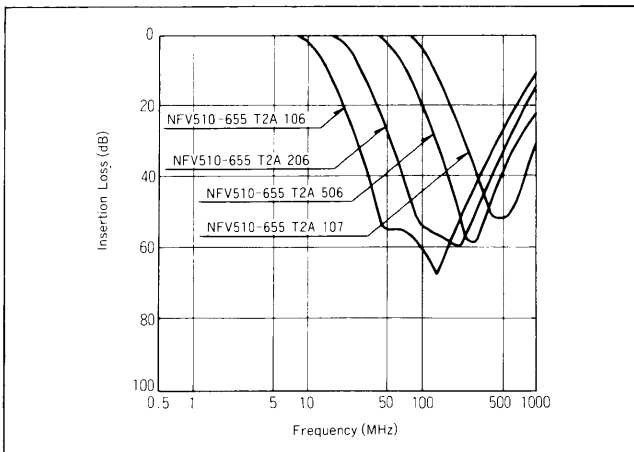
Signal Line Noise Filter NFV510 Series.

RATINGS

Part Number	Characteristics	Cut-off Frequency	Attenuation (dB)					Rated Voltage (V)	Rated Current (mA)	
			10MHz	20MHz	50MHz	100MHz	200MHz			500MHz
NFV510-655 T2A 106		10MHz	※	15	40	45	40	15	100	200
NFV510-655 T2A 206		20MHz	—	※	25	45	50	20	100	200
NFV510-655 T2A 506		50MHz	—	—	※	15	40	20	100	200
NFV510-655 T2A 107		100MHz	—	—	—	※	15	35	100	200

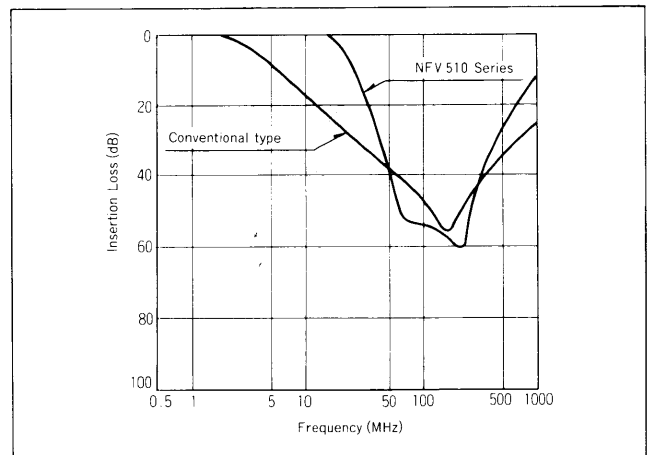
※ 6dB max.

INSERTION LOSS CHARACTERISTICS

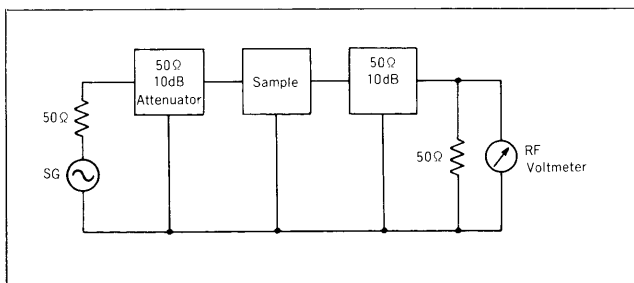


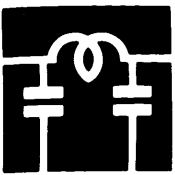
※NFV510 series can realize noise suppression without reducing effective elements of the signal, because it has steep attenuation characteristics.

COMPARISON WITH CONVENTIONAL THREE TERMINAL CAPACITORS



INSERTION LOSS MEASURING CIRCUIT





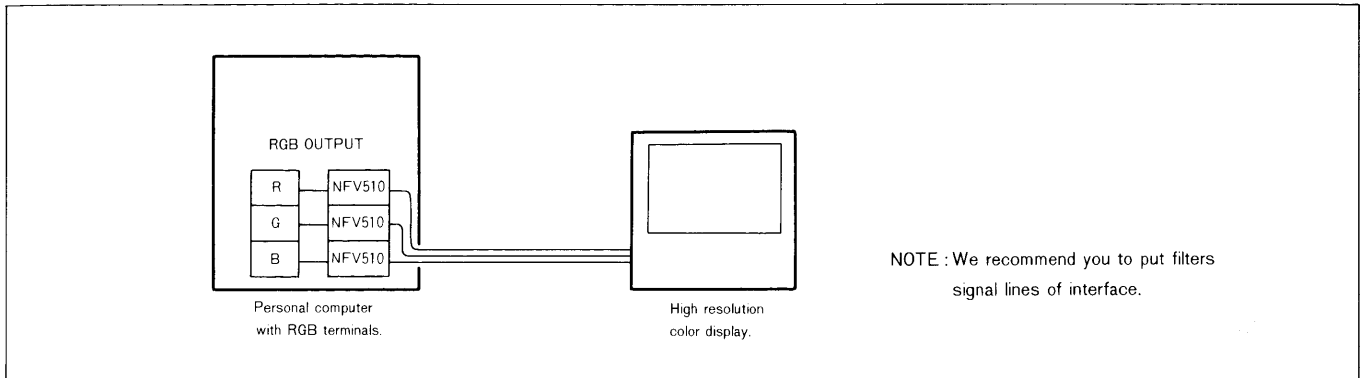
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Signal Line Noise Filter NFV510 Series

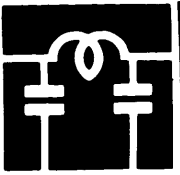
■ APPLICATION

- Noise Suppression for RGB Signal Lines.



■ NOTES

- (1) As the characteristics change according to variations of line impedance values, please be sure to select the NFV510 series with the most appropriate cut-off frequency.
- (2) Length of earth terminal has a great effect upon filtering characteristics. Please make the earth line as short as possible.



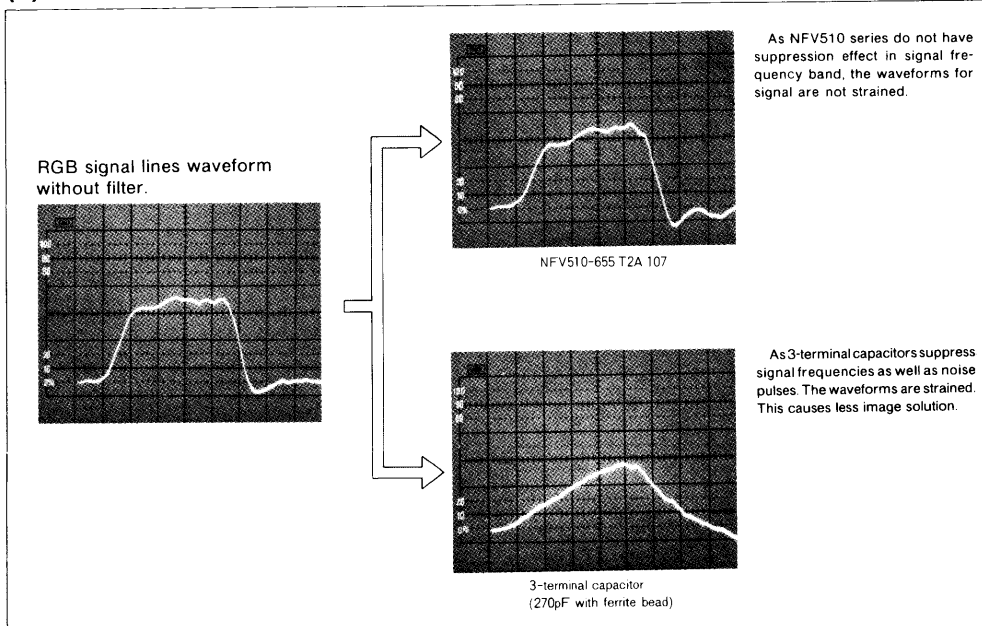
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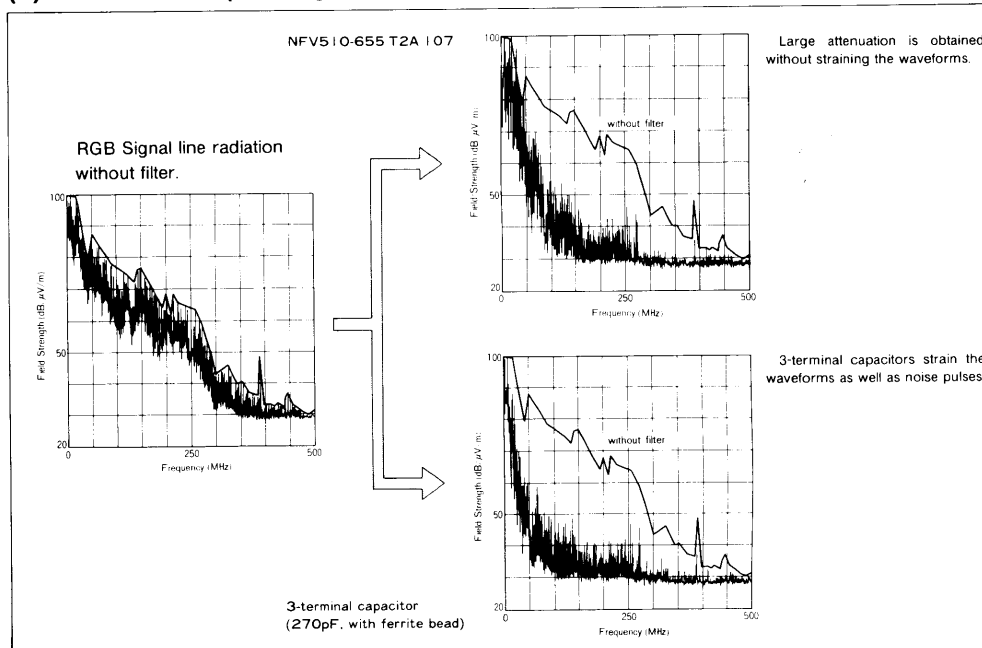
Signal Line Noise Filter NFV510 Series

● Comparative Data

(1) Strain of signal wave, in using filters (1V/div, 0.01 μs/div)



(2) EMI Emission (from signal line cable) (10dB/div, 50MHz/div)



※Please confirm the type and rated value upon ordering as they are subject to change for improvement without notice. Please contact us for further information.



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