

# High Frequency Data Line Filter

3 Coils 6 Data Lines

## F-137G

| PARAMETER                    |           | UNITS            |
|------------------------------|-----------|------------------|
| (1) Inductance               | 85.0 Min. | $\mu$ H          |
| (1) Leakage Inductance       | 0.25 Max. | $\mu$ H          |
| (1) Interwinding Capacitance | 12 Max.   | pF               |
| Primary DC Resistance        | 0.30 Max. | $\Omega$         |
| Isolation (HI-POT)           | 500 Min.  | V <sub>RMS</sub> |
| SRF (Ref.)                   | 20        | MHz              |
| Insulation Resistance        | 10k Min.  | M $\Omega$       |
| Power Rating                 | 250       | mW               |

Crosstalk 60 dB @ 5 MHz Nominal  
50 dB @ 10 MHz Nominal

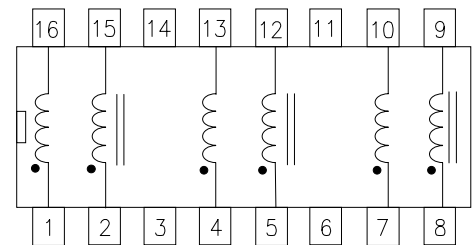
Longitudinal Conversion Loss  
 0 - 300KHz 56 dB Min.  
 300 KHz - 500KHz 52 db Min.  
 500 KHz - 1MHz 46 dB Min.  
 1MHz - 5 MHz 36 db Min.

Operating Temperature Range -40°C TO +85°C  
 Storage Temperature Range -55°C TO +125°C

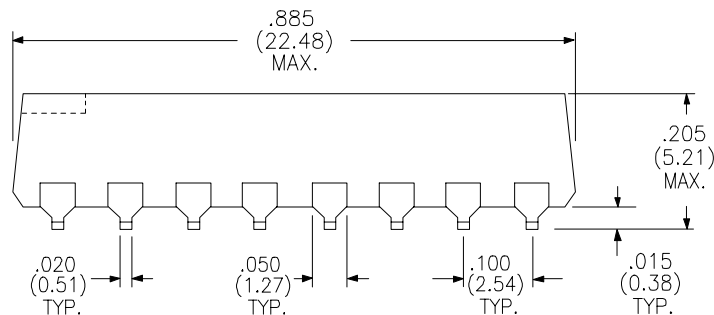
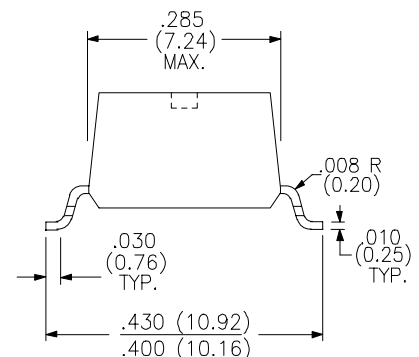
Turns ratio 1:1 + 0%  
 Current Rating: 100mA

<sup>1</sup>Tested at 100KHz and 100 mV<sub>RMS</sub>

Schematic Diagram



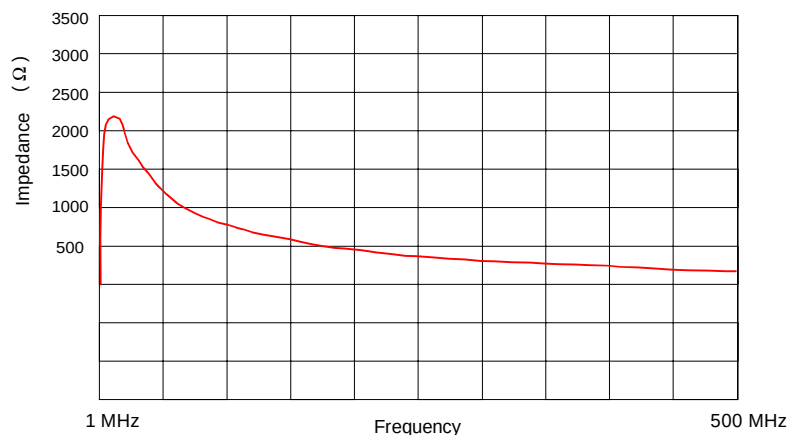
Physical Dimensions in inches (mm)



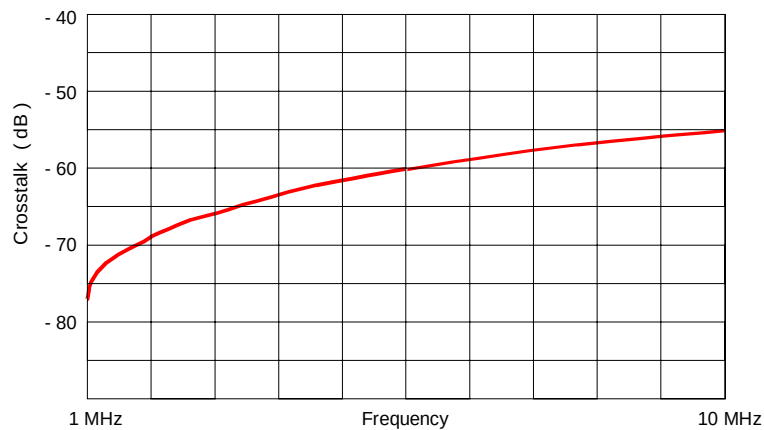
6/30/97

# High Frequency Data Line Filter: P / N F-137G

## Impedance

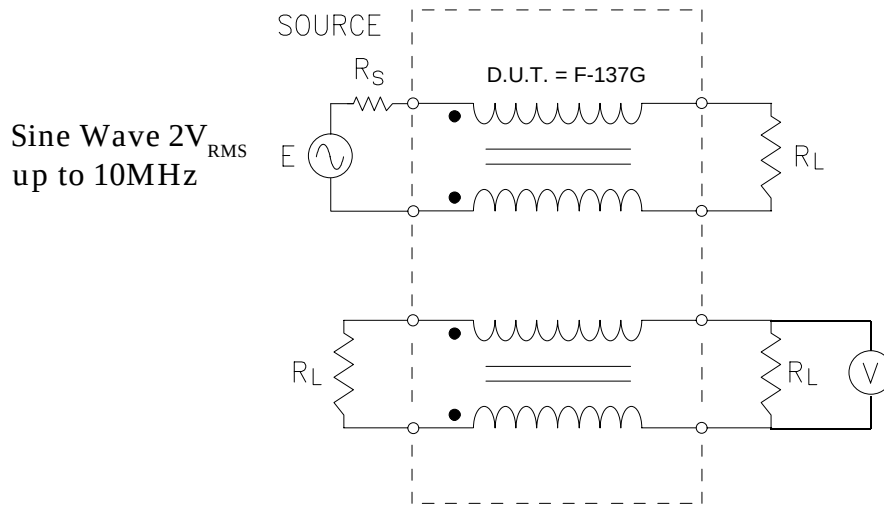


## Crosstalk



7/29/97

## Crosstalk

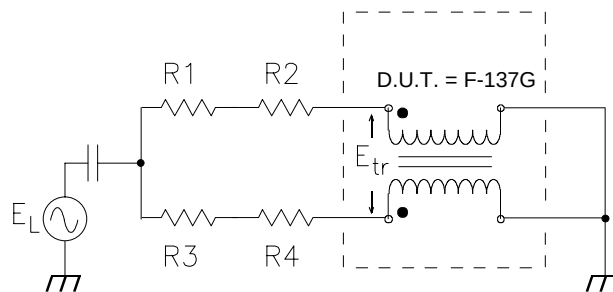


$$R_S = 50 \, \Omega$$

$$R_L = 135 \, \Omega$$

$$20 \log V/E$$

## Longitudinal Conversion Loss



Resistors Matched to within 0.03%

$$R_1 + R_2 = 67.5 \, \Omega$$

$$R_3 + R_4 = 67.5 \, \Omega$$

$$20 \log E_L / E_{Tr}$$