

# 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

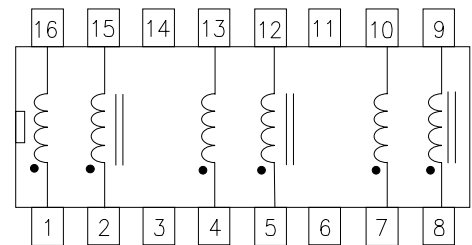
Longitudinal Conversion Loss  
 0 - 300KHz 56 dB Min.  
 300 KHz - 500KHz 52 db Min.  
 500 KHz - 1MHz 46 dB Min.  
 1MHz - 5 MHz 36 db Min.

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

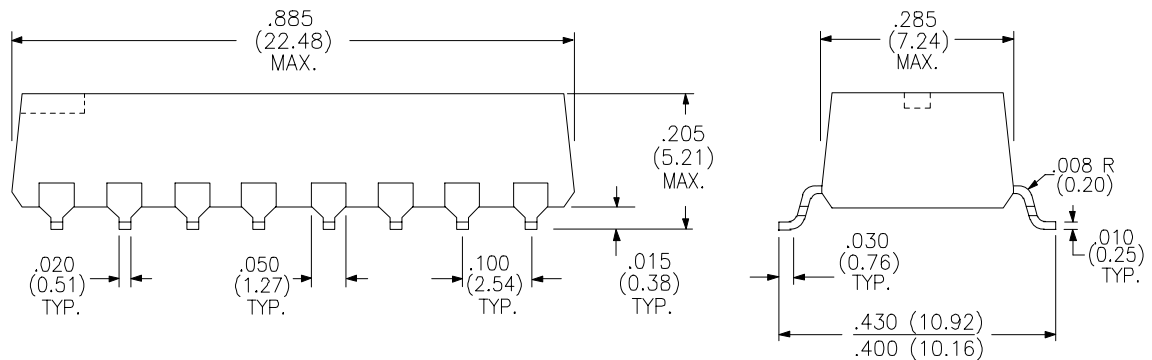
Turns ratio 1:1 + 0%  
 Current Rating: 100mA

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

### Schematic Diagram



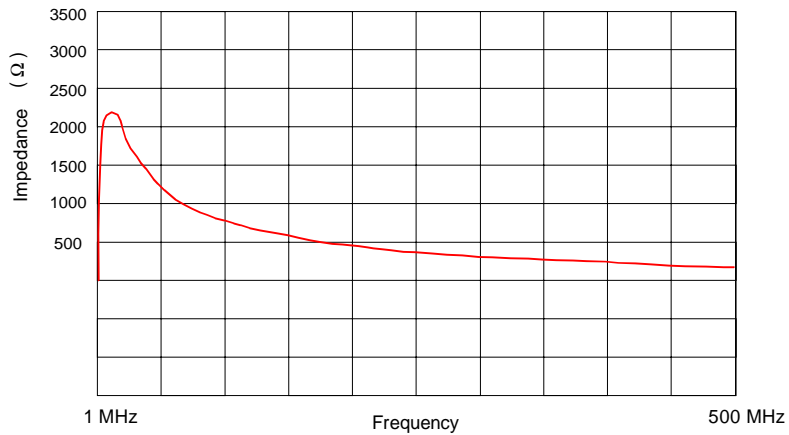
### Physical Dimensions in inches (mm)



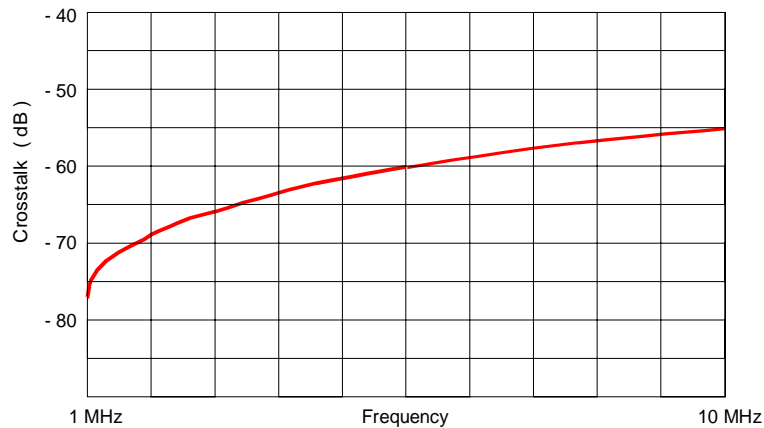
6/30/97

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

## Impedance

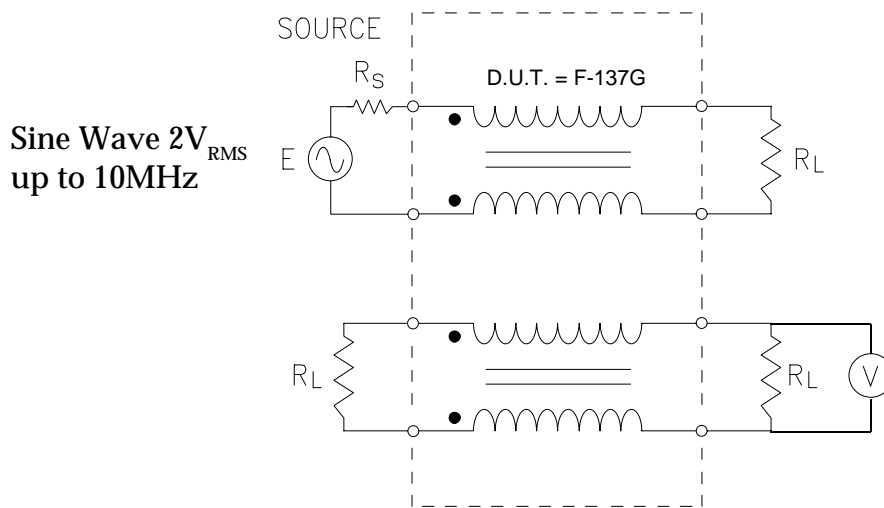


## Crosstalk



7/29/97

## Crosstalk

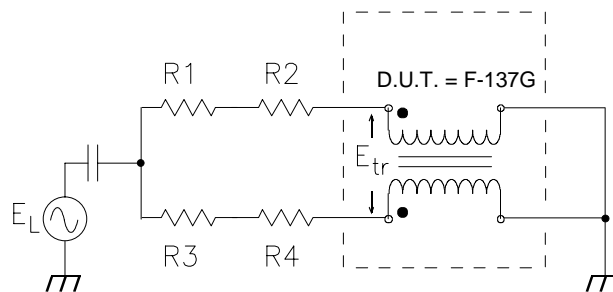


$$R_S = 50 \Omega$$

$$R_L = 135 \Omega$$

$$20 \text{ Log } V/E$$

## Longitudinal Conversion Loss



Resistors Matched to within 0.03%

$$R1 + R2 = 67.5 \Omega$$

$$R3 + R4 = 67.5 \Omega$$

$$20 \text{ Log } E_L/E_{Tr}$$