LPF Series
Common Mode Noise Filter

HF RoHS Pb

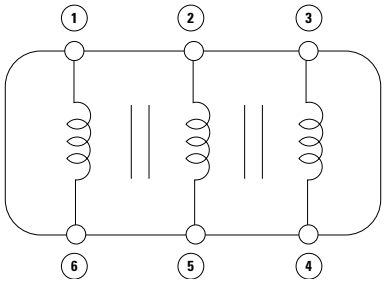
Description

Littelfuse LPF Series is a common mode noise filter that covers the specification of the requirements for high-speed differential serial interfaces, corresponding to new high-speed data transmission specification, like C-PHY.

Features & Benefits

- Effective for suppressing common mode noise and almost no effect for high-speed differential data line
- Ultra-small size as low as 0.90 X 0.68 X 0.45 mm
- Ceramic based SMD component
- Non-polarized product
- Conforming to RoHS directive
- Ultra-small size
- High voltage

Functional Block Diagram



Applications

- Mobile phone and tablet
- Portable/wearable devices
- Other consumer devices

Electrical Specifications

Part Number	Common Mode Impedance (Ω) @ 100 Mhz	Max DC Resistance (Ω) [1]	Minimum Insulation Resistance (MΩ) @5 V	Max Rated Current (mA) [1]
LPF090703A250TG	25 (+/-25%)	5	10	80
LPF090703A350TG	35 (+/-25%)	8	10	70

Note:
1. Test condition 25 °C±2 °C
Operating Temperature: –40 °C ~ 85 °C

Revised: GD. 10/11/23

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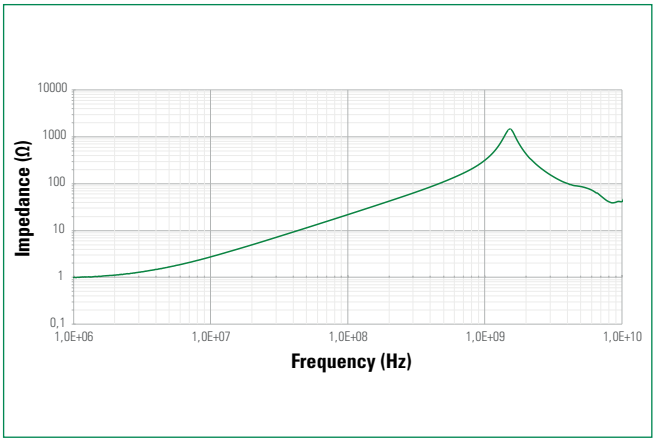
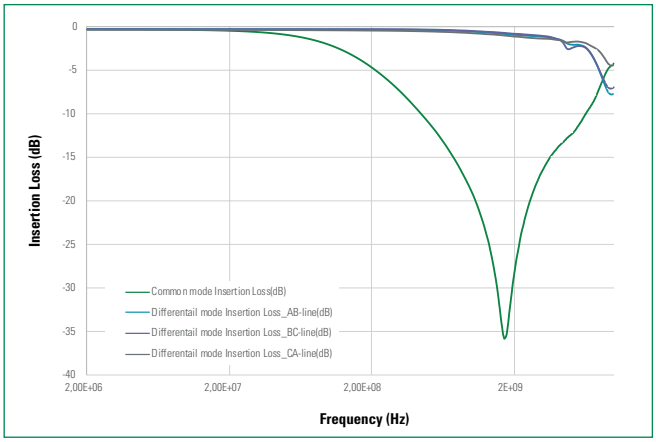
Frequency Response
LPF090703A250TG

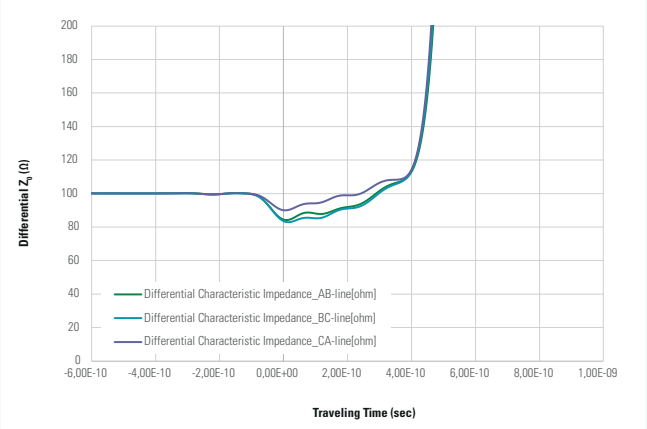
Impedance Curves

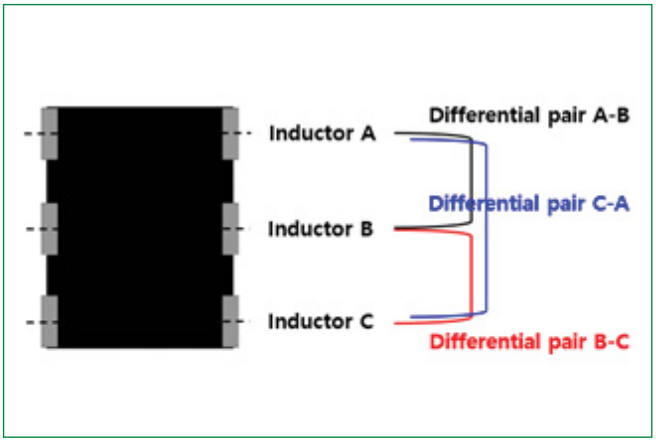


Transmission Characteristics (S-Parameter)



Differential Characteristic Impedance





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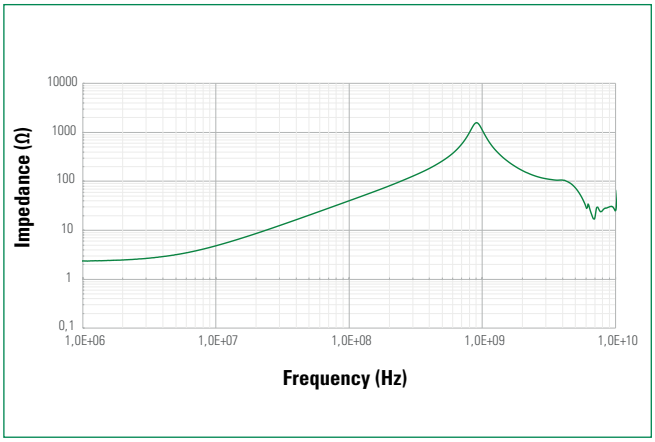
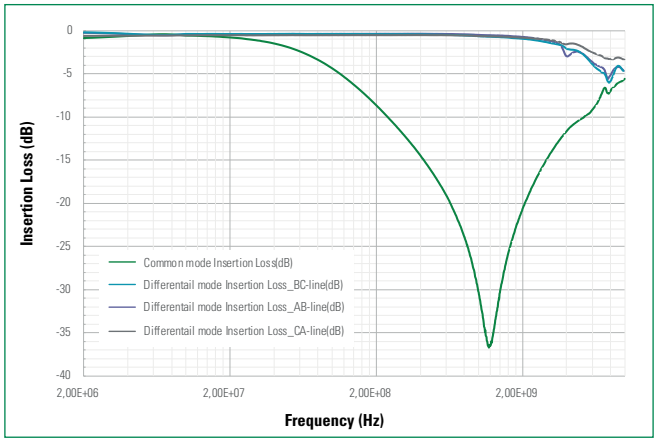
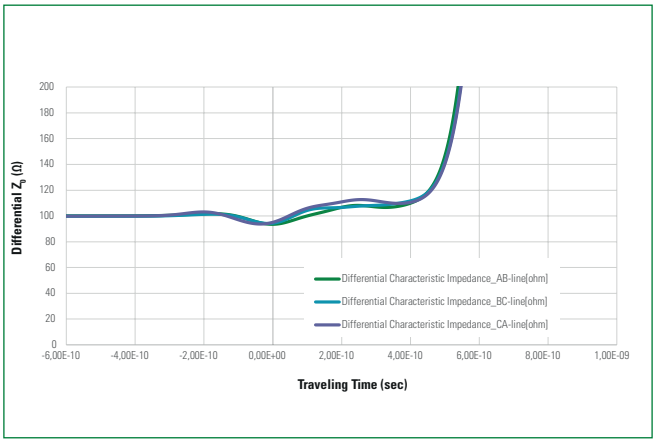
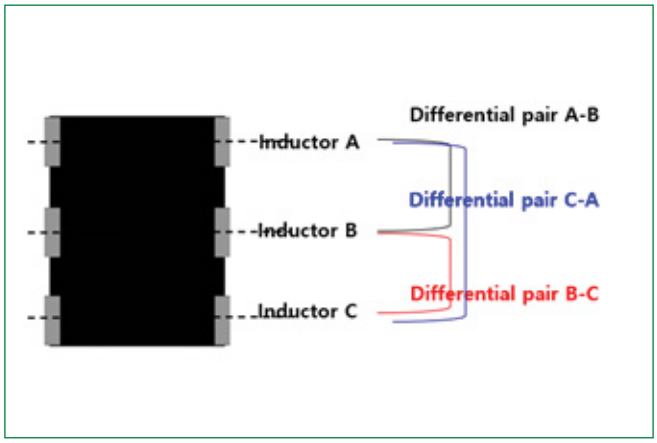


Transmission Characteristics (S-Parameter)



Differential Characteristic Impedance





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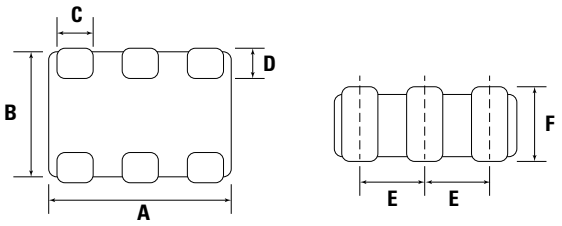
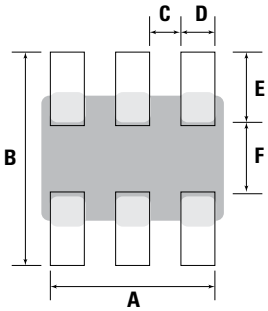
Dimension and Recommended Footprint
All dimensions in mm





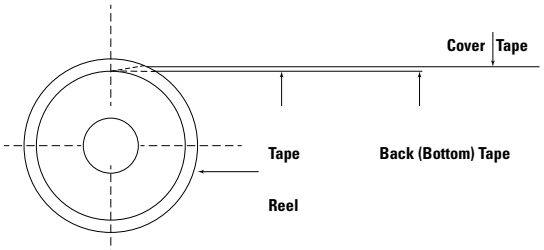
A	B	C	D	E	F
0.90	0.68	0.18	0.13	0.35	0.45

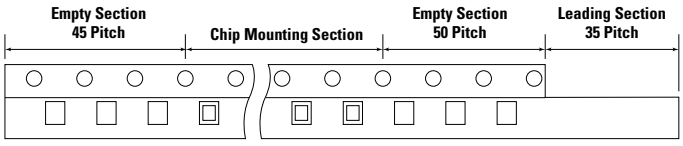
Tolerance +/- 0.05 mm

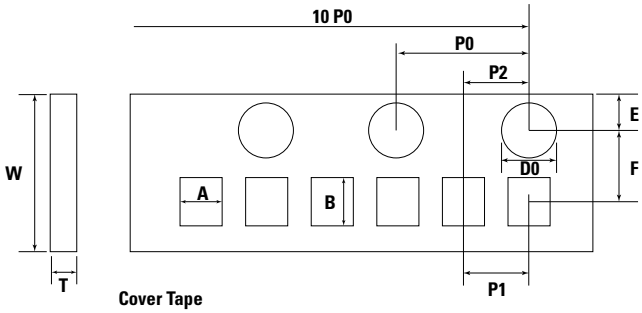
A	B	C	D	E	F
0.85	0.99	0.20	0.15	0.33	0.33

Tolerance +/- 0.05 mm

Tape and Reel Information







Unit = mm

Symbol	A	B	E	F	D0	P1	P2	P0	10P0	W	T
Dimension	0.81	1.12	1.75	3.50	1.55	2.00	2.00	4.00	40.00	8.00	0.58
Tolerance	±0.03	±0.03	±0.05	±0.05	±0.03	±0.05	±0.05	±0.05	±0.10	±0.10	±0.04

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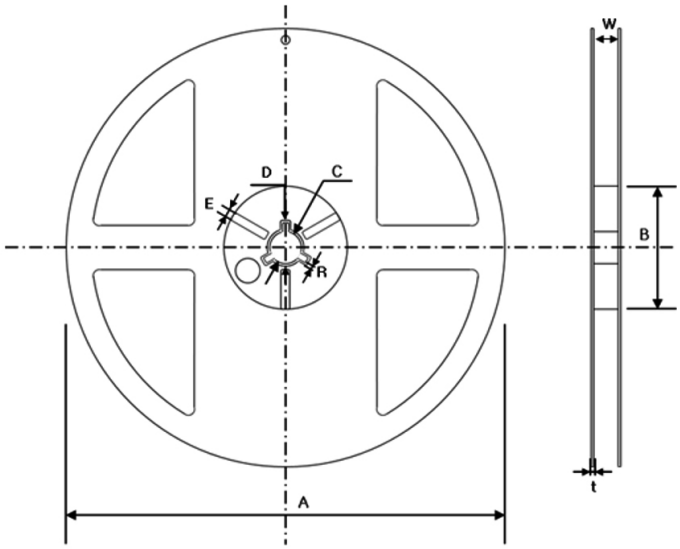
Recommended Land Pattern



Notes:
1. Reel Materials : Polystyrene
2. Label
3. Taping
– Standard Packing Quantity per Reel (Ø178)
– Paper Tape: 10,000 pcs/reel

Unit = mm

Code	A	B	C	D	E	W	t	R
Dimension	Ø178±2	Min. Ø50	Ø13±0.5	Ø20±0.8	Ø3.0±0.5	10±1.5	1.3±0.2	1.0±0.2