

SPDL Series II

Ultra Compact SMD Common Mode Chokes

The SPDL764WM, SPDL975WM, SPDL121006 and SPDL151306 product family is an expansion of Signal's SPDL Series of compact SMD common mode chokes for suppression of common mode noise as required in electronic devices filtering power line signals. It is applicable to high density devices in the customer, industrial and interface markets.

In many of today's electronic designs, smaller size and weight reduction is always of interest. This is evident in many applications such as computers, peripherals and personal charging devices which employ surface mount technology. Performance is still essential with higher current capability.

In conjunction with the latest winding technology and ferrite cores, Signal's SPDL Series II designs address these applications to achieve the most effective noise suppression, offering high common mode impedance in the noise band with the highest possible current ratings in most models.



General Features

- Compact SMD topology
- Excellent common mode EMI noise suppression
- Virtually no distortion of high-speed signals
- Excellent thermal characteristics over temperature

Specifications

- Number of Lines: Two
- Impedance range: 40 to 2500 ohms at 100 MHz
- Current Rating Range: 0.9 A to 15 A
- Operating Temperature Range: -40 °C to +125 °C
- Storage Temperature Component: 0 °C to +85 °C

Applications

- Electromagnetic interference (EMI)
- Demanding adapter lines & battery lines
- Larger electronic equipment
- Personal Computers, Peripherals, IoT

PRODUCT IDENTIFICATION

SP DL 764WM - 500 - 2P - T
 (1) (2) (3) (4) (5) (6)

- (1) Type: Surface Mount Devices
- (2) Style: Wire Wound Type Common Mode Filter
- (3) Dimensions: L = 7 mm, W = 6 mm, H = 4 mm

CODE	LENGTH	WIDTH	HEIGHT
764	7.5 ± 0.6	6.0 ± 0.5	4.0 max
975	9.5 ± 0.6	7.0 ± 0.5	5.0 max
121006	12.5 ± 0.6	10.8 ± 0.5	6.6 max
151306	15.5 ± 0.6	13.0 ± 0.5	6.6 max

- (4) Impedance: 500 for 500 Ω
- (5) 2P: 2 Lines
- (6) Temperature product code: T = temp. -40 ~ 125 °C

Custom versions available upon request.



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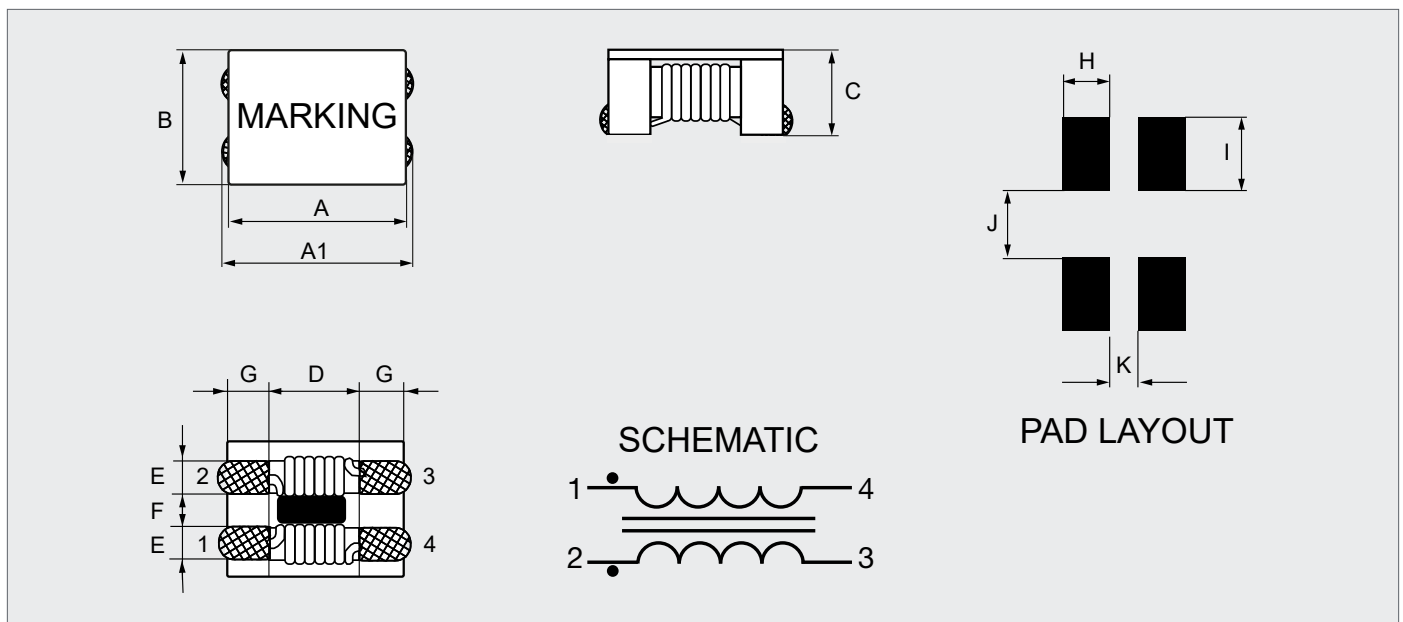
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MECHANICAL SPECIFICATIONS

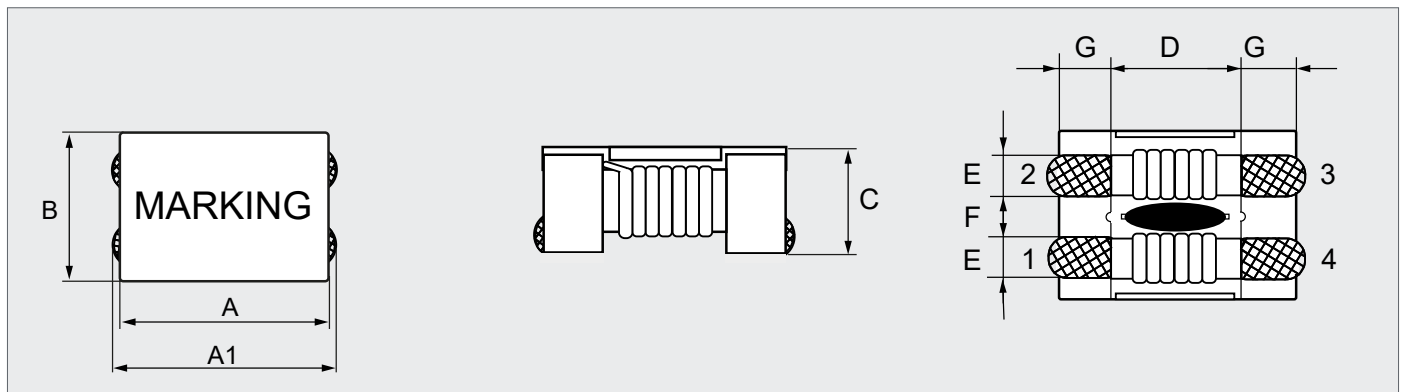
Dimensions are in mm.

SERIES	A ± 0.5	A1 ± 0.6	B ± 0.5	C Max	D Ref	E Ref	F Ref	G Ref	H Ref	I Ref	J Ref	K Ref
SPDL764WM	7.0	7.5	6.0	4.0	3.5	1.5	1.5	1.7	1.9	3.0	2.9	1.3
SPDL975WM	9.0	9.5	7.0	5.0	5.7	1.5	1.5	1.7	2.0	3.0	5.0	1.8
SPDL121006	12.0	12.5	10.8	6.6	7.0	2.7	2.7	2.5	3.1	3.9	6.1	2.3
SPDL151306	15.0	15.6	13.0	6.6	9.4	2.6		2.5	3.1	3.6	8.8	3.3

SPDL764WM, SPDL975WM and SPDL121006 Dimensions



SPDL151306 Dimensions



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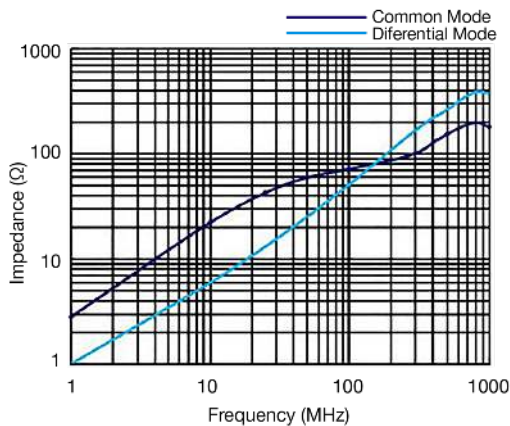
ELECTRICAL SPECIFICATIONS

Electrical specifications for all part numbers measured at 25°C unless otherwise stated.

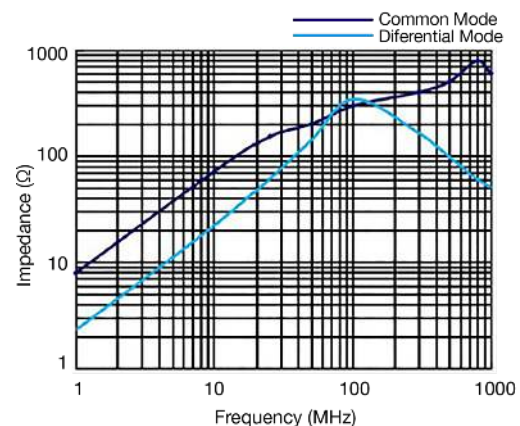
SPDL764WM Series

Part Number	Impedance @ 100 MHz (Ω)	DCR (Ω) Max.	Rated Voltage (Vdc) Max.	Insulation Resistance (M Ω) Min.	Rated Current (A) Max.
SPDL764WM-40-2P-T	40	5	50	10	15.0
SPDL764WM-100-2P-T	100	10	50	10	9.0
SPDL764WM-225-2P-T	225	10	50	10	5.0
SPDL764WM-400-2P-T	400	10	50	10	5.0
SPDL764WM-500-2P-T	500	15	50	10	4.0
SPDL764WM-800-2P-T	800	17	50	10	3.0
SPDL764WM-910-2P-T	910	21	50	10	2.5
SPDL764WM-1700-2P-T	1700	50	50	10	1.2
SPDL764WM-2000-2P-T	2000	63	50	10	1.0
SPDL764WM-2500-2P-T	2500	75	50	10	0.9

TYPICAL PERFORMANCE CURVES



SPDL764WM-40-2P-T



SPDL764WM-100-2P-T

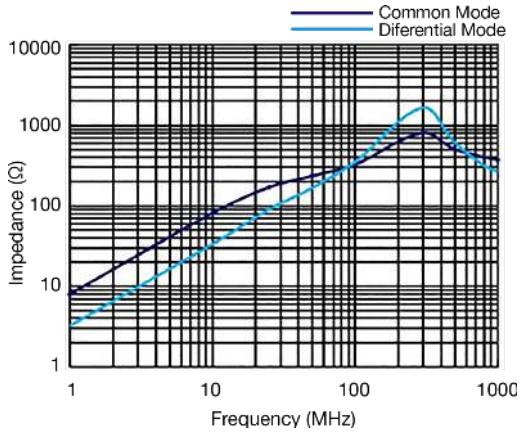
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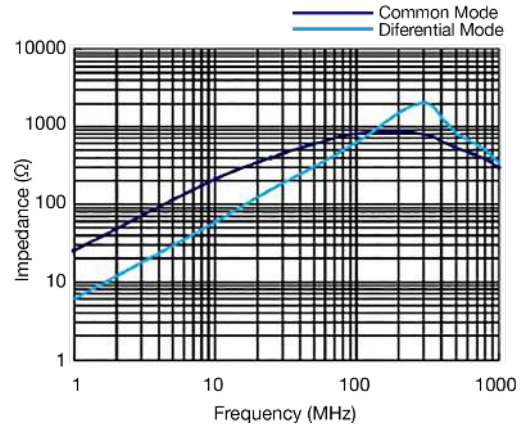
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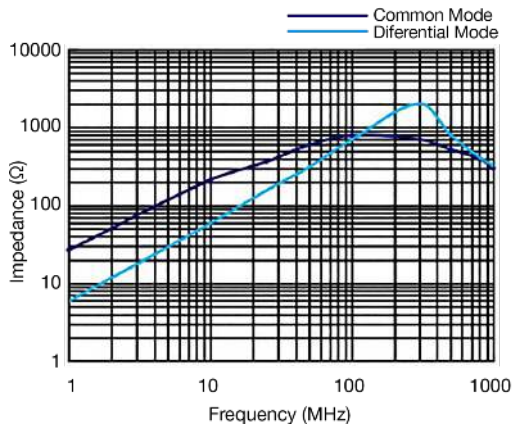
SPDL Series II Datasheet



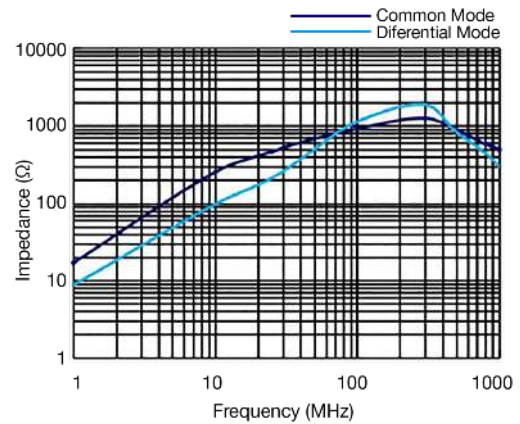
SPDL764WM-225-2P-T



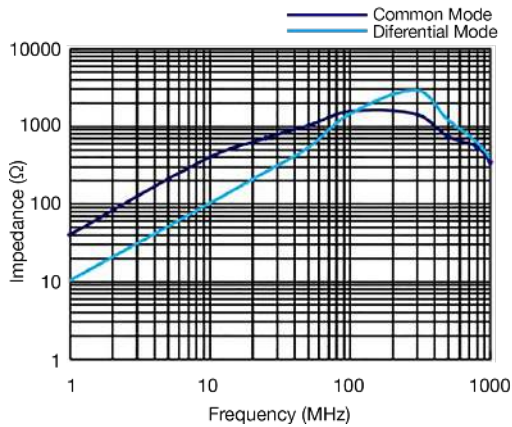
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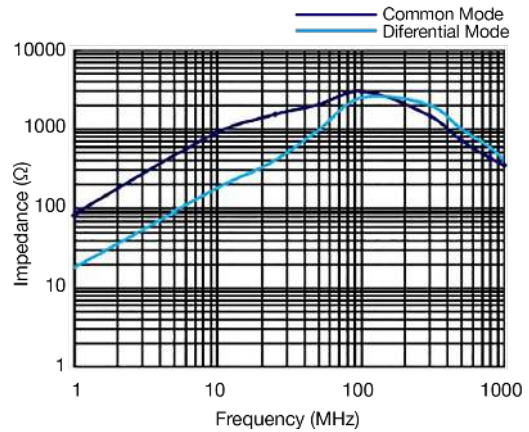
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SPDL764WM-800-2P-T



SPDL764WM-910-2P-T



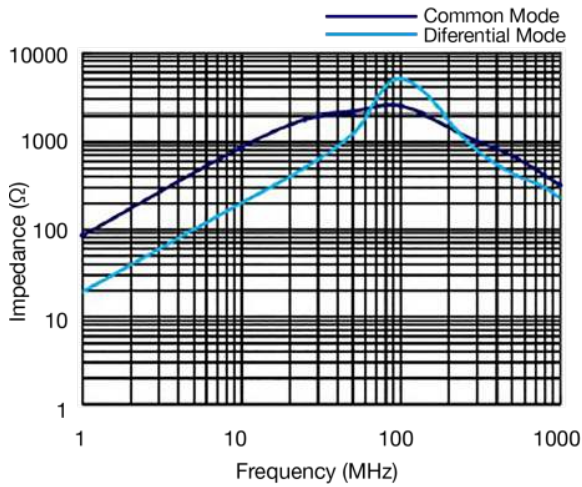
SPDL764WM-2000-2P-T

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SPDL764WM-2500-2P-T

SPDL975WM Series

Part Number	Impedance @ 100 MHz (Ω)	DCR (Ω) Max.	Rated Voltage (Vdc) Max.	Insulation Resistance (MΩ) Min.	Rated Current (mA) Max.
SPDL975WM-225-2P-T	225	6	50	10	6
SPDL975WM-450-2P-T	450	8	50	10	5.5
SPDL975WM-500-2P-T	500	10	50	10	5
SPDL975WM-750-2P-T	750	13	50	10	4
SPDL975WM-1700-2P-T	1700	60	50	10	2.5
SPDL975WM-2000-2P-T	2000	65	50	10	2
SPDL975WM-2500-2P-T	2500	70	50	10	1.9

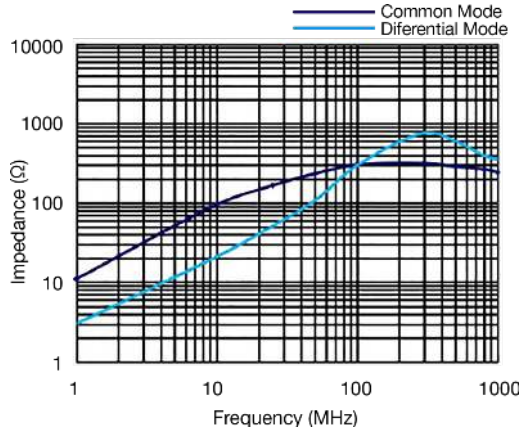
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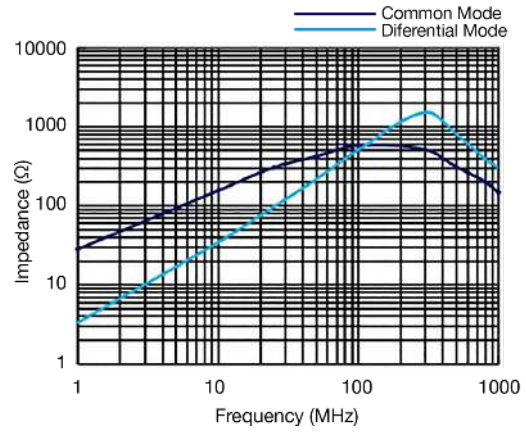
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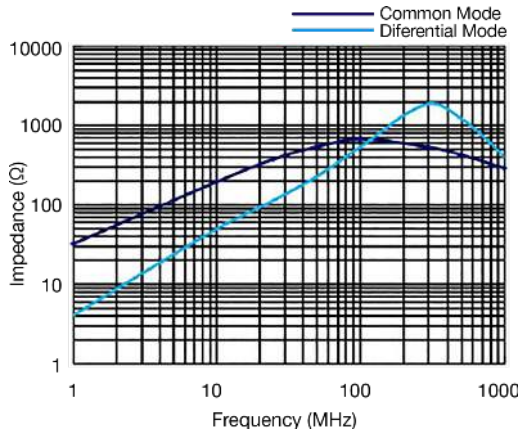
TYPICAL PERFORMANCE CURVES



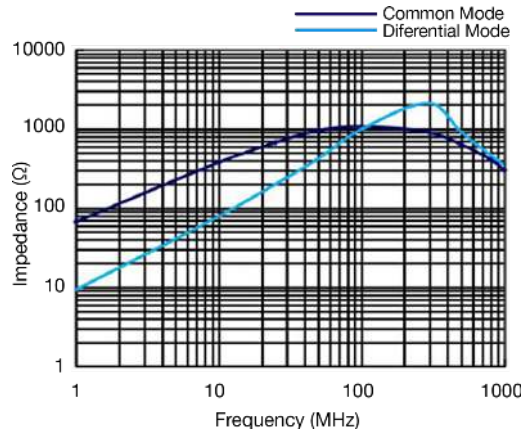
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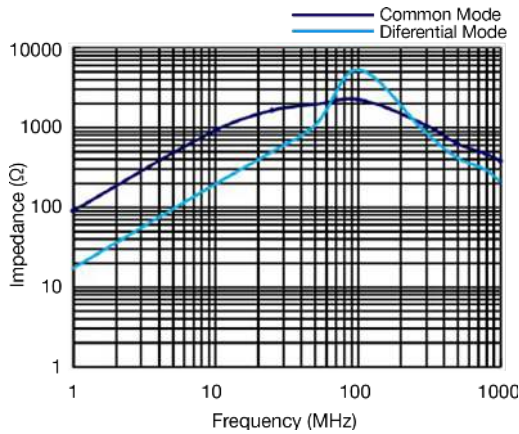
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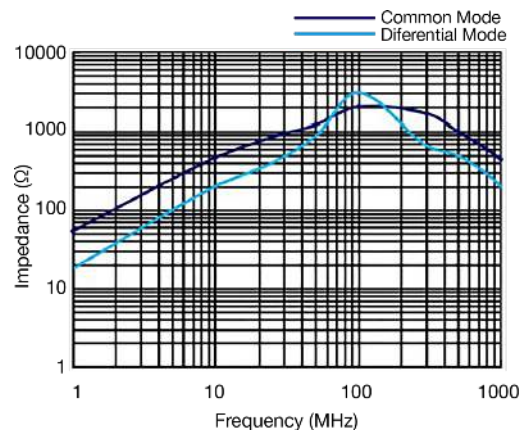
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SPDL975WM-750-2P-T



SPDL975WM-1700-2P-T



SPDL975WM-2000-2P-T

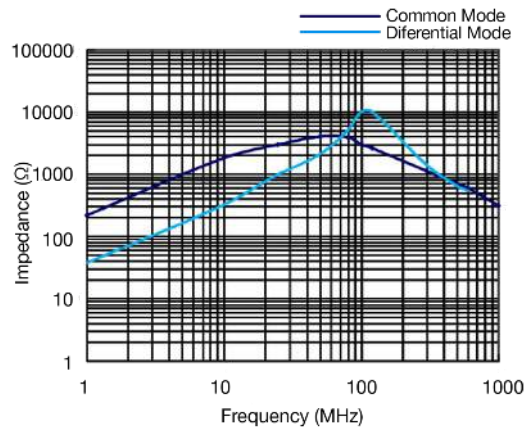
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SPDL Series II Datasheet



SPDL975WM-2500-2P-T

SPDL121006 Series

Part Number	Impedance @ 100 MHz (Ω)	DCR (Ω) Max.	Rated Voltage (Vdc) Max.	Insulation Resistance (MΩ) Min.	Rated Current (mA) Max.
SPDL121006-80-2P-T	80	4	50	10	10
SPDL121006-500-2P-T	500	6	50	10	8
SPDL121006-600-2P-T	600	8	50	10	8
SPDL121006-750-2P-T	750	14	50	10	6
SPDL121006-910-2P-T	910	23	50	10	4.5
SPDL121006-2000-2P-T	2000	35	50	10	1.8
SPDL121006-2300-2P-T	2300	50	50	10	1.5

Custom versions available upon request.

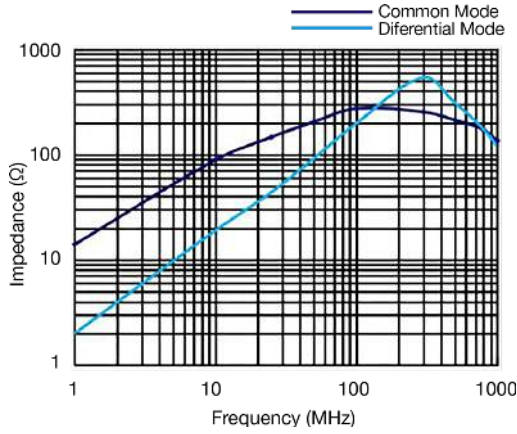


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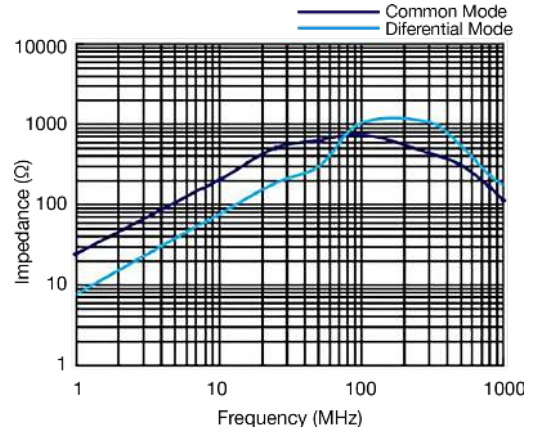
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SPDL Series II Datasheet

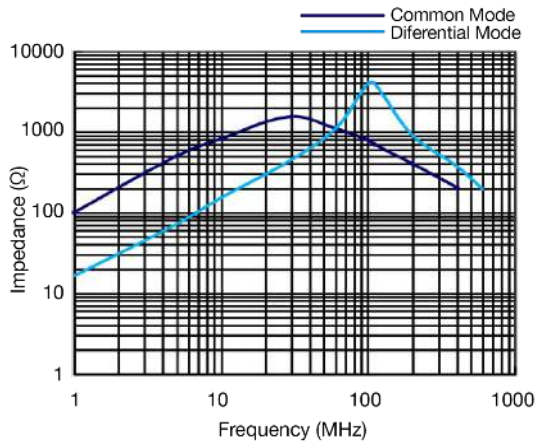
TYPICAL PERFORMANCE CURVES



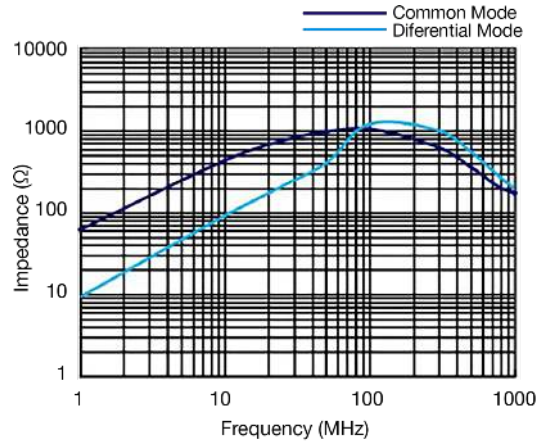
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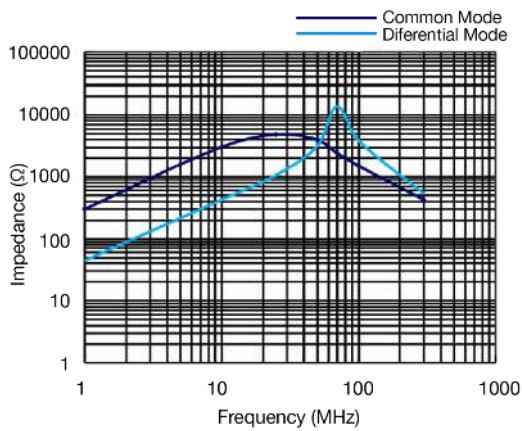
SPDL121006-500-2P-T



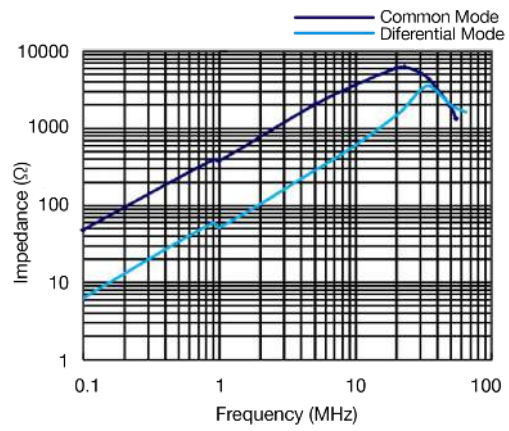
SPDL121006-600-2P-T



SPDL121006-750-2P-T



SPDL121006-2000-2P-T



SPDL121006-2300-2P-T

Custom versions available upon request.



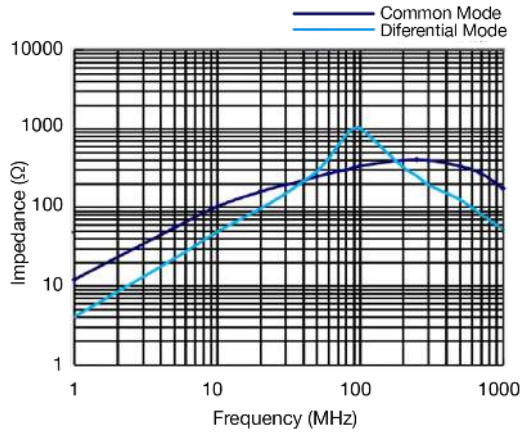
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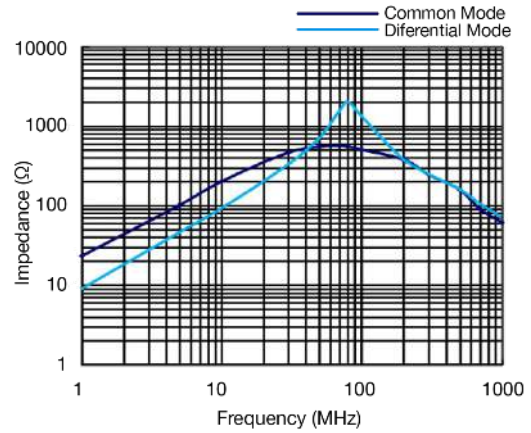
SPDL151306 Series

Part Number	Impedance @ 100 MHz (Ω)	DCR (Ω) Max.	Rated Voltage (Vdc) Max.	Insulation Resistance (MΩ) Min.	Rated Current (mA) Max.
SPDL151306-225-2P-T	225	5	50	10	13
SPDL151306-400-2P-T	400	6	50	10	10
SPDL151306-500-2P-T	500	7	50	10	10
SPDL151306-800-2P-T	800	10	50	10	9
SPDL151306-1200-2P-T	1200	23	50	10	5

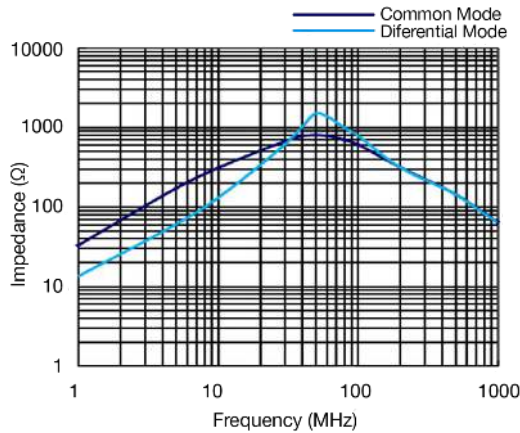
TYPICAL PERFORMANCE CURVES



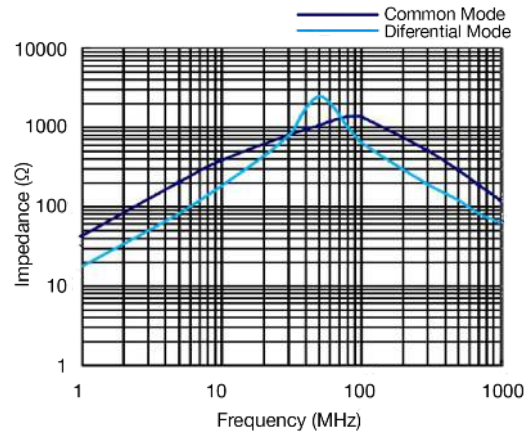
SPDL151306-225-2P-T



SPDL151306-400-2P-T



SPDL151306-500-2P-T



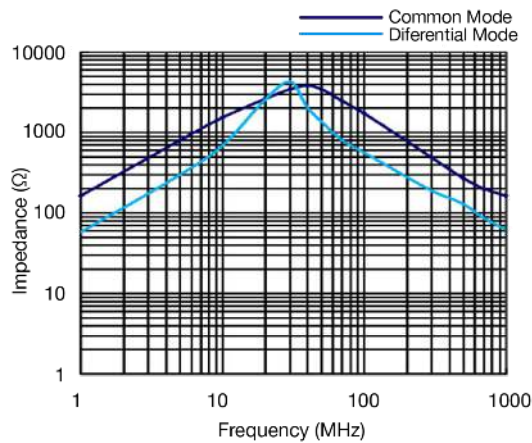
SPDL151306-800-2P-T

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SPDL151306-1200-2P-T

- Test equipment**

Z: measured on Agilent 4991A RF Impedance or equivalent

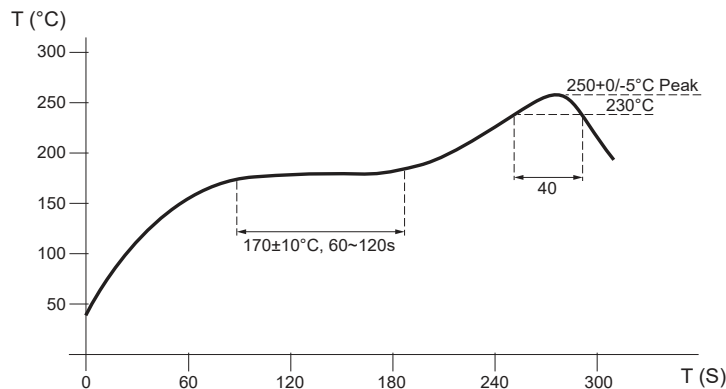
DCR: measured on Chroma 16502 micro micro-OHM meter or equivalent

Rated current: measured on Agilent 4284A LCR meter with 42841A Current Source or equivalent

- Notice**

There could be measurement deviations with different instruments due to different test principles / internal resistance. Open and Short compensation is performed before testing

RECOMMENDED REFLOW SOLDERING CONDITIONS (SMT-TYP)



ADD:

The recommended reflow conditions as above graph, is set according to our soldering equipment, due to various manufactures may have different reflow soldering equipment, products, process conditions, set methods, and so on. When setting the reflow conditions, please adjust and confirm according to users' environment/equipment.

Notice:

- Solder reflow temperature: +250°C Max. for 10 seconds max.
- To solder inductors by soldering iron is not recommended.
- Please contact us for details

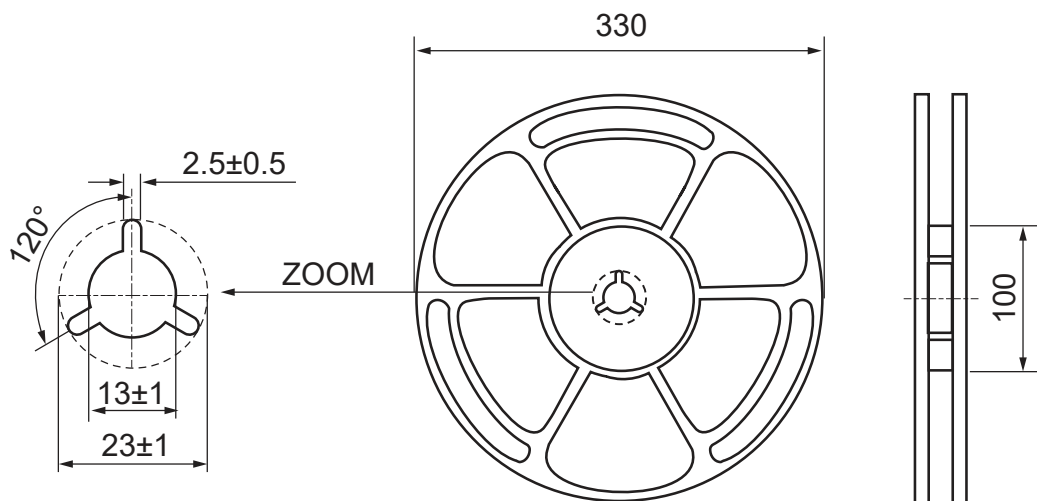
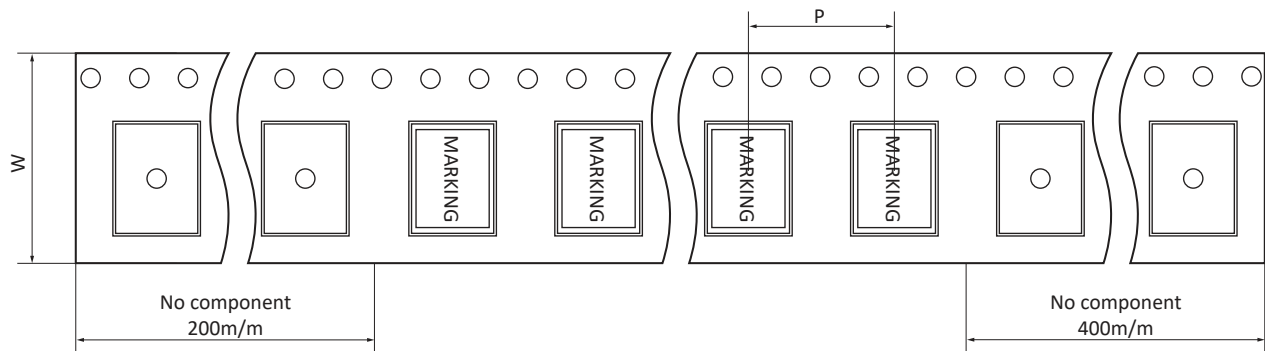
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TAPE AND REEL SPECIFICATIONS



Part Number	Reel Spec.	W	P	Pcs / Reel
SPDL764WM	13"	16	12	1500
SPDL975WM	13"	24	16	700
SPDL121006	13"	24	16	500
SPDL151306	13"	24	20	350

Taping Specification: EIA -481 Compliant

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About Signal Transformer

Signal Transformer is known as the world's leader of wire wound magnetic solutions since 1959. With over 50 years of experience manufacturing transformers, chokes, inductors and custom or modified standard products. Signal offers not only the most comprehensive line of certified standard power conversion products, with our vast engineering, manufacturing and regulatory resources; Signal Transformer excels in the design and manufacturer of cost effective, specialized platforms.



**For more information,
please contact us:**

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