



Mag Layers USA, INC

Specification Sheet

P/N : MCM-0905S-Series-F-RU

Products:

[Molded Power Chokes](#)

[Multilayer Chip Inductors](#)

[Lan Transformer](#)

[RF Passive / Antennas](#)

[Automotive](#)

Certifications:

[ISO9001](#)

[IATF16949](#)

[ISO14001](#)

[QC080000](#)

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I . SCOPE :

This specification applies to the Pb Free Signal Line Common Mode Filter
for MCM-0905S-SERIES-□-□□

PRODUCT IDENTIFICATION

MCM - 0905S - 102 Y - F-□□ -RU

① ② ③ ④ ⑤

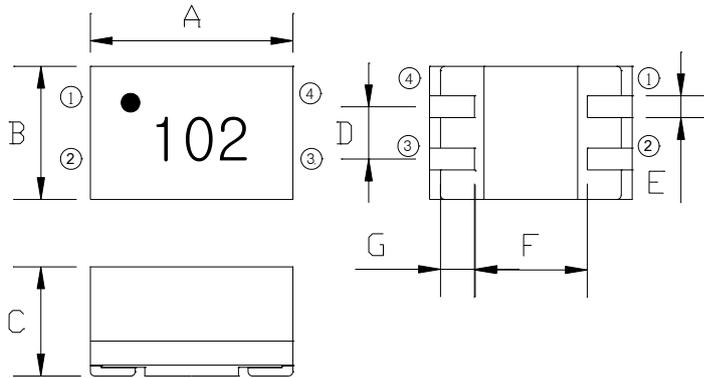
- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance
- ⑤ Inner Control Code

II . INDEX :

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Unless otherwise specified, test condition should be Temp. = 20±5℃, Humidity = 35~85% But if needed, then test condition should be Temp. = 20±2℃, Humidity = 65±5%		
8. SHELF LIFE Storage Condition: The temperature should be within -40℃ ~105℃ and humidity should be less than 75%RH. The product should be used within 12 months from the time of delivery. In addition, suggest to use product within 6 months from the time of delivery.		



(1) SHAPES AND DIMENSIONS(mm)



A: 9.2±0.3	mm
B: 6.0±0.3	mm
C: 5.0±0.3	mm
D: 2.54±0.2	mm
E: 1.0±0.1	mm
F: 5.7 Ref.	mm
G: 1.4 Ref.	mm

(2) ELECTRICAL SPECIFICATIONS

SEE TABLE 1

TEST INSTRUMENTS

- L : HP 4284A PRECISION LCR METER (or equivalent)
- Z : E4991A PRECISION LCR METER (or equivalent)
- RDC : CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
- I.R : CHROMA MODEL 19073 AC/DC/IR HIPOT TESTER (or equivalent)

(3) CHARACTERISTICS

- (3)-1 Operate temperature range -40°C ~ +125°C
(Including self temp. rise)
- (3)-2 Storage temperature range -40°C ~ +125°C

TABLE 1

MAGLAYERS PT/NO.	L(1-4),(2-3) (uH)	Impedance(Ω) Typ.	RDC (Ω) Max. (1 line)	Rated Current (A) Max.	Leakage L (nH) Typ. 1MHz/1mA	Insulation Test Voltage (AC) Max.	Rated Voltage (V) Max.	Marking
MCM-0905S-100Y-E-□□-RU	10±30%	920	0.08	1.6	55	500	80	●100
MCM-0905S-102Y-F-□□-RU	1000±50%	6000	0.31	0.8	90	500	80	●102
MCM-0905S-202Y-F-□□-RU	2000±50%	9200	0.42	0.6	130	500	80	●202
MCM-0905S-652Y-E-□□-RU	6500±50%	18400	0.95	0.4	280	500	80	●652

100Y Test Frequency : 1KHz/100mV

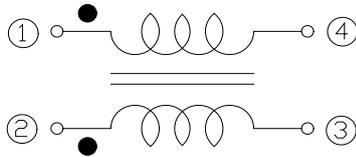
102Y、202Y Test Frequency : 100KHz/5mV

652Y Test Frequency : 10KHz/50mV

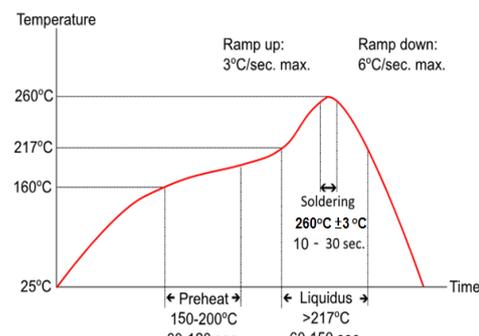
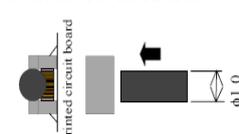
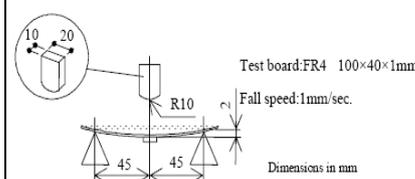
Rated Current : Based on temperature rise (ΔT : 40℃ Max.)

Insulation Resistance : 3 sec. (10MΩ Min.)

CIRCUIT DIAGRAM



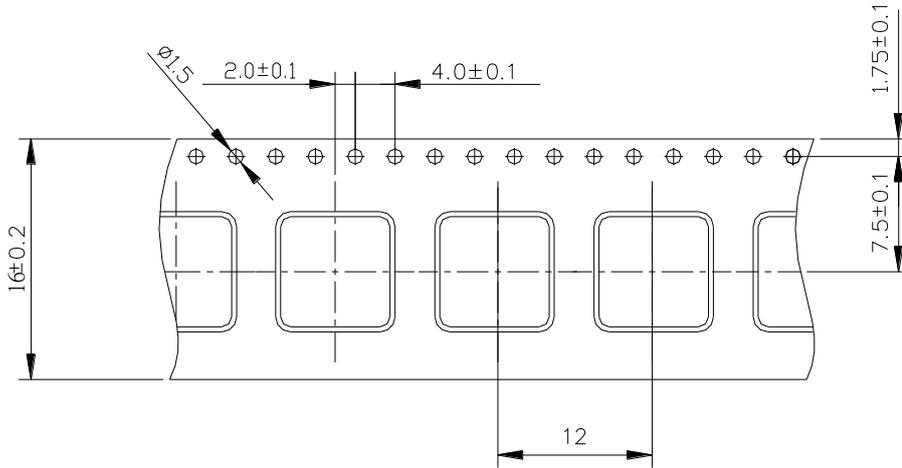
(4) RELIABILITY TEST METHOD
MECHANICAL

TEST ITEM	SPECIFICATION	TEST DETAILS
Solder ability	The product shall be connected to the test circuit board by the fillet (the height is 0.2mm).	Apply cream solder to the printed circuit board . Refer to clause 8 for Reflow profile.
Resistance to Soldering heat (reflow soldering)	There shall be no damage or problems.	<p>Temperature profile of reflow soldering</p>  <p>The specimen shall be passed through the reflow oven with the condition shown in the above profile for 1 time. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.</p>
Terminal strength	The terminal electrode and the ferrite must not be damaged.	<p>Solder a chip to test substrate , and then laterally apply a load 9.8N in the arrow direction.</p> 
Strength on PC board bending	The terminal electrode and the ferrite must not be damaged.	<p>Solder a chip to test substrate and then apply a load.</p> 
High temperature resistance	<p>Impedance: Within ±20% of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	<p>After the samples shall be soldered onto the test circuit board, the test shall be done.</p> <p>Measurement : After placing for 24 hours min.</p> <p>Temperature : +125±2°C</p> <p>Applied voltage : Rated voltage</p> <p>Applied current : Rated current</p> <p>Testing time : 500±12 hours</p>



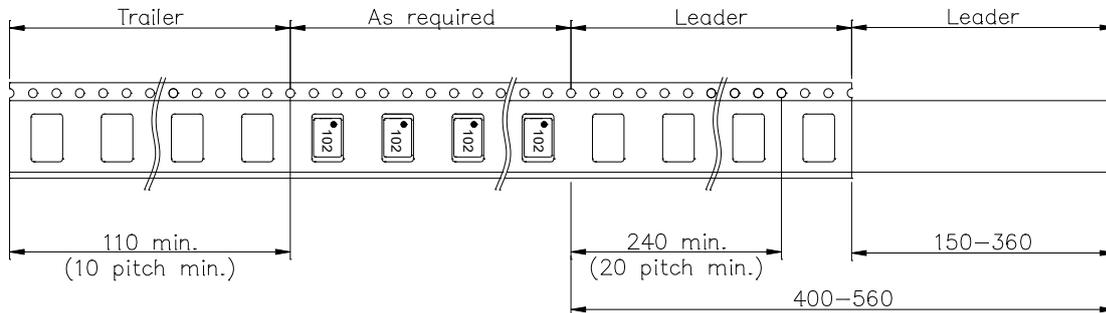
(7) PACKAGING

(7)-1 CARRIER TAPE DIMENSIONS (mm)

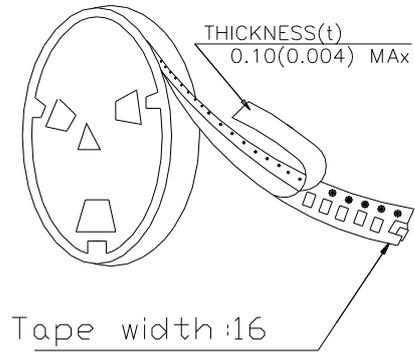
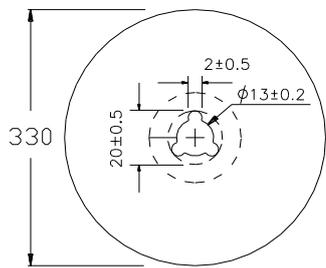


(7)-2 TAPING DIMENSIONS (mm)

Unreeling
Direction



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(7)-4 QUANTITY

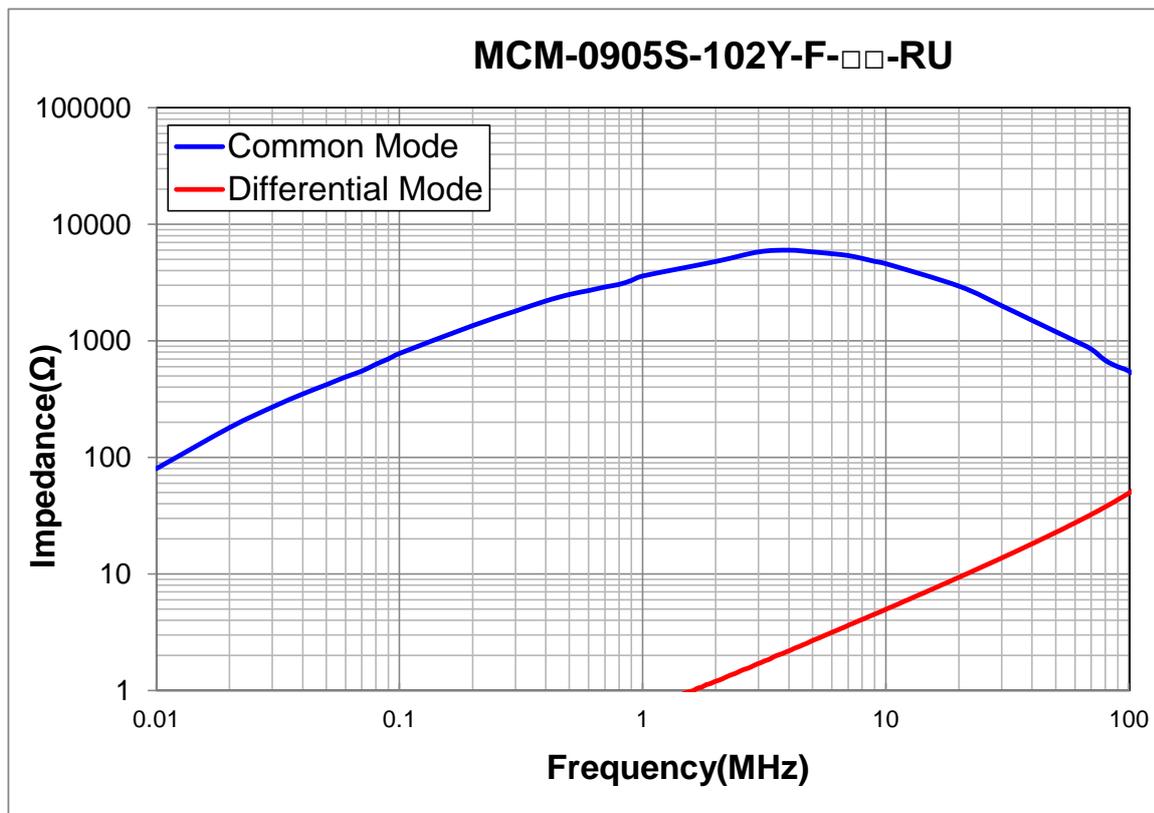
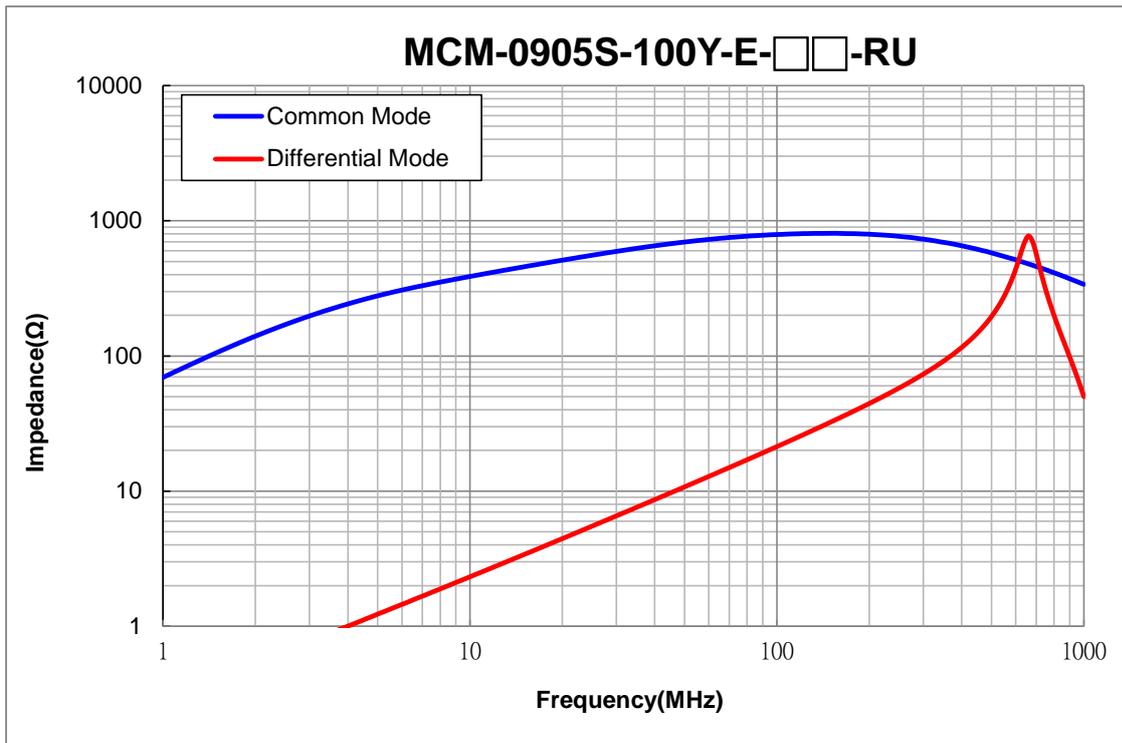
800 pcs/Reel

The products are packaged so that no damage will be sustained.



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TYPICAL ELECTRICAL CHARACTERISTICS



TYPICAL ELECTRICAL CHARACTERISTICS

