



# MS1005 SERIES ~ Wire Wound Ceramic Chip Inductors



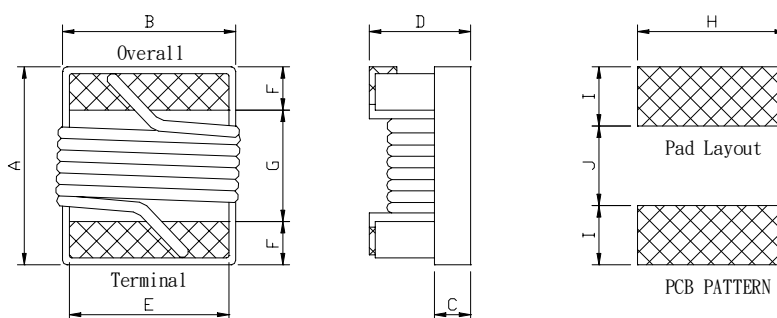
RoHS Compliant

## PART NUMBERING SYSTEM

<u>MS</u>	<u>1 0 0 5</u>	—	<u>6 8 N</u>	—	<u>LF</u>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

## SHAPES AND DIMENSIONS

UNIT : mm

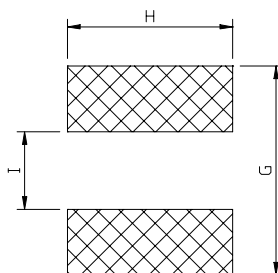


**A=1.19 max. B=0.64 max. C=0.30 max. D=0.66 max. E=0.51±0.1 F=0.23±0.1 G=0.56±0.07**

## RECOMMENDED PATTERNS

UNIT : mm

**G=1.18 H=0.66 I=0.46**



### Features:

- 1> Miniature SMD power chip Inductors.
- 2> Economical alternative to large power inductors.
- 3> Ideal for use at switching frequencies from **1MHz.to 2.52MHz** .
- 4> Magnetically shielded against radiation.

### Applications:

Notebook computers, PC cards, wireless communication and handheld devices.



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### SPECIFICATION TABLE

PART NUMBER	INDUCTANCE (nH)	TOLERANCE	Q. MIN.	SRF (MHz)		DCR ( $\Omega$ )		IDC (mA)	
				MIN.	MAX.	(max)	(max)	(max)	(max)
MS1005-1N0□-LF	1.0@250MHz	S, K	16@900MHz	6000		0.045		1360	
MS1005-1N9□-LF	1.9@250MHz	S, K	16@900MHz	6000		0.070		1040	
MS1005-2N0□-LF	2.0@250MHz	S, K	16@900MHz	6000		0.070		1040	
MS1005-2N2□-LF	2.2@250MHz	S, K	19@900MHz	6000		0.070		960	
MS1005-2N4□-LF	2.4@250MHz	S, K	19@900MHz	6000		0.068		790	
MS1005-2N7□-LF	2.7@250MHz	S, K	19@900MHz	6000		0.120		640	
MS1005-3N3□-LF	3.3@250MHz	S, K	19@900MHz	6000		0.066		840	
MS1005-3N6□-LF	3.6@250MHz	S, K	19@900MHz	6000		0.066		840	
MS1005-3N9□-LF	3.9@250MHz	S, K	19@900MHz	5800		0.066		840	
MS1005-4N3□-LF	4.3@250MHz	S, K	19@900MHz	6000		0.091		700	
MS1005-4N7□-LF	4.7@250MHz	S, K	19@900MHz	4770		0.130		640	
MS1005-5N1□-LF	5.1@250MHz	S, K	20@900MHz	5800		0.083		800	
MS1005-5N6□-LF	5.6@250MHz	S, K	20@900MHz	5800		0.083		760	
MS1005-6N2□-LF	6.2@250MHz	S, K	20@900MHz	5800		0.083		760	
MS1005-6N8□-LF	6.8@250MHz	S, K	20@900MHz	4800		0.083		680	
MS1005-7N5□-LF	7.5@250MHz	S, K	22@900MHz	5800		0.100		680	
MS1005-8N2□-LF	8.2@250MHz	S, K	22@900MHz	4400		0.100		680	
MS1005-8N7□-LF	8.7@250MHz	S, K	22@900MHz	4100		0.200		480	
MS1005-9N0□-LF	9.0@250MHz	S, K	22@900MHz	4160		0.100		680	
MS1005-9N5□-LF	9.5@250MHz	S, K	22@900MHz	4000		0.200		480	
MS1005-10N□-LF	10@250MHz	G, J, K	21@900MHz	3900		0.20		480	
MS1005-11N□-LF	11@250MHz	G, J, K	24@900MHz	3680		0.12		640	

- Inductance tolerance :J=±5% ; K=±10%.
- Inductance are tested by HP4284A with SMD test fixture at 1250MHz, 0.1Vrms.
- Q value are tested by HP4287A with 16193 SMD test fixture at 900MHz, 0.1 Vrms.
- DCR measured on HP4338 micro-ohmmete.
- Isat : Inductance is 10% lower than it's nominal value in DC saturation characteristics.
- Irms : temperature raise becomes  $\Delta T = 40^\circ \text{C}$ .
- Operating temperature range  $-40^\circ \text{C}$  to  $+125^\circ \text{C}$ . (Electrical specifications at  $25^\circ \text{C}$ .)



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PART NUMBER	INDUCTANCE (nH)	TOLERANCE	Q. MIN.	SRF (MHz)	DCR ( $\Omega$ )	IDC (mA)
				MIN.	(max)	(max)
MS1005-12N□-LF	12@250MHz	G , J , K	24@900MHz	3600	0.12	640
MS1005-13N□-LF	13@250MHz	G , J , K	24@900MHz	3450	0.21	440
MS1005-15N□-LF	15@250MHz	G , J , K	24@900MHz	3280	0.17	560
MS1005-16N□-LF	16@250MHz	G , J , K	24@900MHz	3100	0.22	560
MS1005-18N□-LF	18@250MHz	G , J , K	24@900MHz	3040	0.23	420
MS1005-19N□-LF	19@250MHz	G , J , K	24@900MHz	3040	0.20	480
MS1005-20N□-LF	20@250MHz	G , J , K	24@900MHz	3000	0.25	420
MS1005-22N□-LF	22@250MHz	G , J , K	24@900MHz	2800	0.30	400
MS1005-23N□-LF	23@250MHz	G , J , K	24@900MHz	2720	0.30	400
MS1005-24N□-LF	24@250MHz	G , J , K	24@900MHz	2700	0.30	400
MS1005-27N□-LF	27@250MHz	G , J , K	24@900MHz	2480	0.30	400
MS1005-30N□-LF	30@250MHz	G , J , K	24@900MHz	2350	0.30	400
MS1005-33N□-LF	33@250MHz	G , J , K	24@900MHz	2350	0.30	400
MS1005-36N□-LF	36@250MHz	G , J , K	24@900MHz	2320	0.44	320
MS1005-39N□-LF	36@250MHz	G , J , K	24@900MHz	2100	0.55	200
MS1005-40N□-LF	40@250MHz	G , J , K	20@900MHz	2240	0.44	320
MS1005-43N□-LF	43@250MHz	G , J , K	20@900MHz	2030	0.81	100
MS1005-47N□-LF	47@250MHz	G , J , K	20@900MHz	2100	0.83	150
MS1005-51N□-LF	51@250MHz	G , J , K	19@900MHz	1750	0.82	100
MS1005-56N□-LF	56@250MHz	G , J , K	18@900MHz	1760	0.97	100
MS1005-68N□-LF	68@250MHz	G , J , K	18@900MHz	1620	1.12	100
MS1005-82N□-LF	82@250MHz	G , J , K	18@900MHz	1260	1.55	50
MS1005-R10□-LF	100@250MHz	G , J , K	18@900MHz	1160	2.00	30
MS1005-R12□-LF	120@250MHz	G , J , K	18@900MHz	1900	1.78	50

- Inductance tolerance :G=  $\pm 2\%$  ; J= $\pm 5\%$  ; K= $\pm 10\%$  ; S= $\pm 0.3nH$
- Inductance are tested by HP4284A with SMD test fixture at 1250MHz, 0.1Vrms.
- Q value are tested by HP4287A with 16193 SMD test fixture at 900MHz, 0.1 Vrms.
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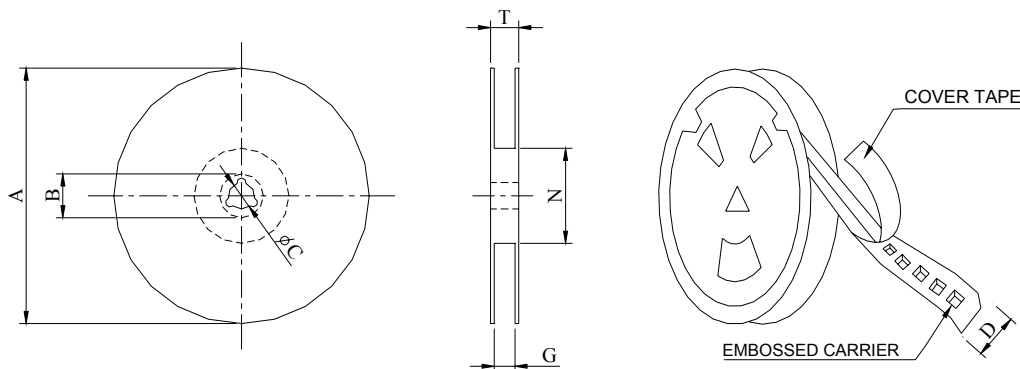


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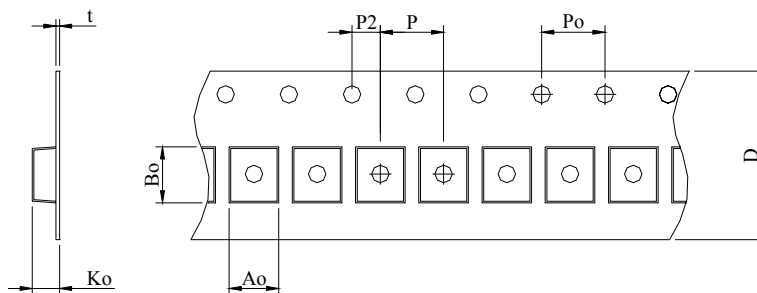


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## PACKAGE SPECIFICATION



\*CARRIER TAPE WIDTH : D



	DIMENSIONS (m/m)														
	Q'TY (PCS)	A	B	C	D	G	N	T	Ao	Bo	Ko	t	P	Po	P2
7"	10,000	178	—	13	8	8.4	60	14.4	—	—	—	0.6	2	4	2