

Multilayer Ferrite Chip High Frequency Bead

积层式铁氧体高频磁珠

MHBXXXXZ Series

INTRODUCTION 产品介绍

Multilayer high frequency chip beads are SMD components that possess a low DC resistance. Their impedance mainly comprises resistive part. Therefore, when this component is inserted in series with a noise current conduction path, the noise content can be attenuated.

积层式高频磁珠系表面黏着式贴片，具低直流电阻。其阻抗主要由电阻性组成，所以当组件被安装于一有噪声的电流传导路径上，其噪声可被衰减。

FEATURE 特色

The MHBXXXXZ series can be used on high frequency($\geq 1\text{GHz}$) circuits due to its high impedance.

Perfect effect for EMI suppression at high frequency due to its high impedance.

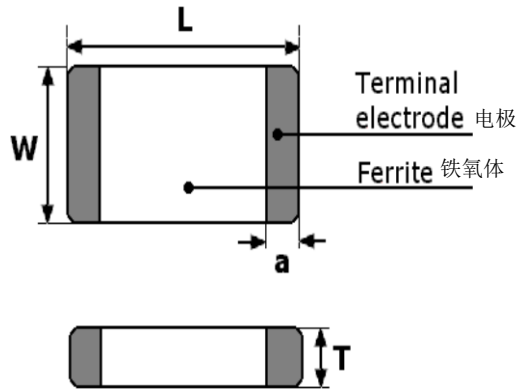
由于MHBXXXXZ 系列产品的高频高阻抗之特性，使其适用于高频电路，其高阻抗电磁干扰抑制效果最佳。

APPLICATION 适用产品

This series is suitable for EMI suppression of the high frequency($\geq 1\text{GHz}$) circuits. For example: 此系列产品适用于高频电路之噪声抑制，例如：

1. Various power lines of electronic equipment.
各式电子设备电源线。
2. Mother board, tablet PC, notebook, desktop computers and peripheral equipment.
主板、平板计算机、笔记本电脑、桌面计算机及其外围设备。
3. DSC, DVC, LCD Television, Set Top Box.
数字相机、数字摄影机、液晶电视机、数字机顶盒。
4. Digital communication equipment.
数字通讯设备。
5. Various automotive electronics.
各式汽车设备。

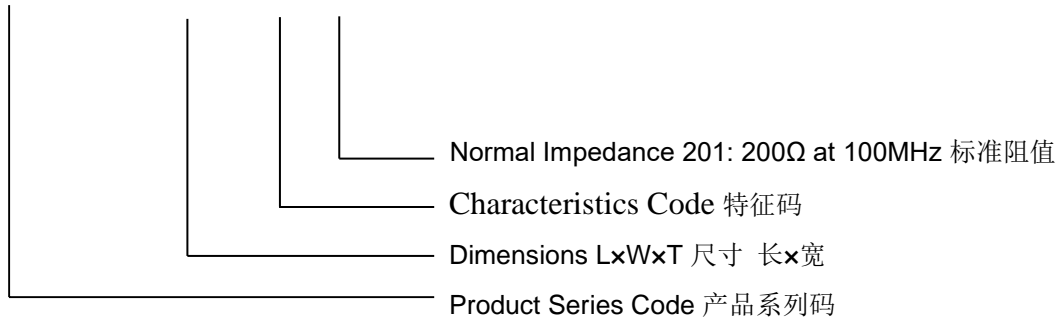
SHAPE AND DIMENSIONS 外形及尺寸



SIZE 尺寸	L 长 mm	W 宽 mm	T 厚 mm	a 银宽 mm
100505(0402)	1.0 ± 0.15	0.5 ± 0.15	0.5 ± 0.15	0.25 ± 0.1
160808(0603)	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.30 ± 0.2

PART NUMBER SYSTEM 编码系统

MHB 1005 Z 201



Electrical Characteristics 电气特性

MHB100505Z Series

Part Number	Impedance@10 0MHz	Impedance@1G Hz	Max.DC resistance	Max.rated Current
Unit	$\Omega \pm 25\%$	$\Omega \pm 40\%$	Ω	mA
Symbol	Z	Z	DCR	I _r
MHB1005Z201	200	300	0.70	200
MHB1005Z221	220	300	0.70	200
MHB1005Z301	300	400	0.70	200
MHB1005Z331	330	400	0.70	200
MHB1005Z601	600	1000	0.70	300
MHB1005Z102	1000	1400	1.10	250
MHB1005Z601	600	1400	0.85	300
MHB1005Z102	1000	2000	1.25	250
MHB1005Z221	220	900	1.00	250

MHB160805Z Series

Part Number	Impedance@10 0MHz	Impedance@1G Hz	Max.DC resistance	Max.rated Current
Unit	$\Omega \pm 25\%$	$\Omega \pm 40\%$	Ω	mA
Symbol	Z	Z	DCR	I _r
MHB1608Z331	330	400	0.50	200
MHB1608Z471	470	500	0.70	200
MHB1608Z601	600	600	0.90	100
MHB1608Z751	750	750	1.50	50
MHB1608Z801	800	1000	1.50	50
MHB1608Z102	1000	1200	1.50	50
MHB1608Z122	1200	1000	1.50	50
MHB1608Z601	600	1000	0.80	200
MHB1608Z102	1000	1400	1.00	100
MHB1608Z471	470	800	1.20	100
MHB1608Z601	600	1200	1.50	100
MHB1608Z102	1000	1700	1.80	50
MHB1608Z101	100	500	0.50	200
MHB1608Z121	120	500	0.50	200
MHB1608Z151	150	800	0.50	200
MHB1608Z201	200	1100	0.80	100
MHB1608Z221	220	1100	0.80	100
MHB1608Z331	330	1300	1.20	50

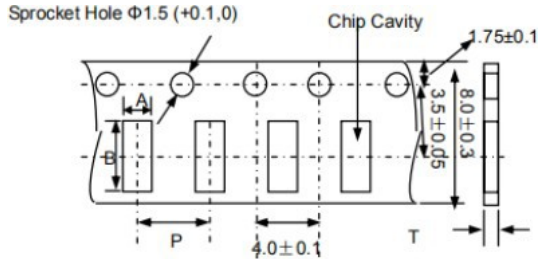
* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 量測儀器: E4991A 阻抗分析

Testing and Reliability

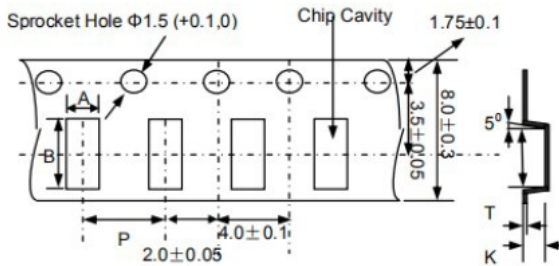
Mechanical Reliability		
Item	Specification and Requirement	Test Method
Solderability	1.No case deformation or change in appearance 2.New solder coverage More than 95%	1. Preheat: 155℃±5 60S±2S 2. Tin: lead-free. 3. Temperature:240℃±5℃, flux 3.0S±0.5S.
Mechanical shock	No case deformation or change in appearance	1. Acceleration:100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	No case deformation or change in appearance	1. Reflow: 2times 2. Frequency: 10HZ~55HZ~10HZ, 20Min/Cycles 3. Amplitude: 1.52 mm 4. Directions: X,Y,Z 5. Time: 12 cycle / direction
Endurance Reliability		
Item	Specification and Requirement	Test Method
Thermal Shock	Impedance change: Within ± 20% Without distinct damage in appearance	1. First -40℃ for 30 minutes, last 85℃ for 30 minutes as 1 cycle. Go through 5cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing for 24±2 hours
Humidity Resistance	Impedance change: Within ± 20% Without distinct damage in appearance	1. Reflow 2 times, 2.60℃,95%RH,1000 hours 2. Measured at room temperature after placing for 24±2hours
Low temperature storage	Impedance change: Within ± 20% Without distinct damage in appearance	1. Temperature: -40 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours
High temperature storage	Impedance change: Within ± 20% Without distinct damage in appearance	1. Temperature: +85 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours

Packaging Information

(1) Tape Packaging Dimensions (Unit: mm)

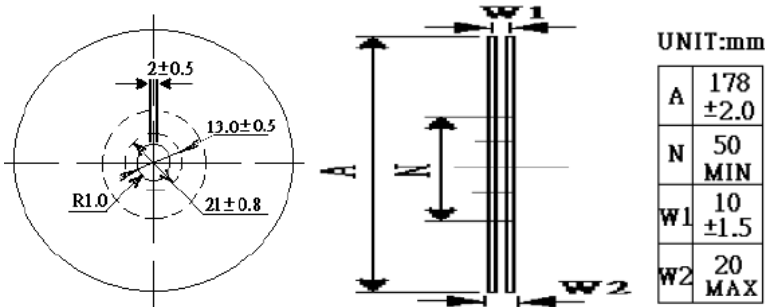


Paper Tape				
型号 Type	A	B	P	Tmax
0603[0201]	0.4±0.1	0.7±0.1	2.0±0.05	0.55
1005[0402]	0.65±0.1	1.25±0.1	2.0±0.05	0.8
1608[0603]	1.0±0.2	1.8±0.2	4.0±0.1	1.1
2012[0805]	1.5±0.2	2.3±0.2	4.0±0.1	1.1
3216[1206]	1.9±0.2	3.5±0.2	4.0±0.1	1.1



Embossed Tape					
型号 Type	A	B	P	Pmax	Tmax
2012[0805]	1.55±0.2	2.25±0.2	4.0±0.1	1.45	0.3
3216[1206]	1.88±0.2	3.5±0.2	4.0±0.1	1.27	0.3
3225[1210]	2.9±0.2	3.5±0.2	4.0±0.1	1.65	0.28
4516[1806]	1.93±0.2	4.95±0.2	4.0±0.1	2.03	0.35
4532[1812]	3.66±0.2	4.95±0.2	4.0±0.1	1.95	0.33

(2) REEL&Packaging Quantity(PCS)



UNIT:mm	
A	178 ±2.0
N	50 MIN
W1	10 ±1.5
W2	20 MAX

型号 Type	T(mm)	载带 Tape	数量 Quantity
0603[0201]	0.3±0.05	Paper Tape	10K
1005[0402]	0.5±0.15	Paper Tape	10K
1608[0603]	0.8±0.15	Paper Tape	4K
2012[0805]	0.9±0.2	Paper Tape	4K
	1.25±0.2	Embossed Tape	3K
3216[1206]	0.9±0.2	Paper Tape	4K
	1.1±0.2	Embossed Tape	3K
3225[1210]	1.3±0.3	Embossed Tape	2K
4516[1806]	1.6±0.3	Embossed Tape	2K
4532[1812]	1.5±0.3	Embossed Tape	1K