

# Multilayer Chip Bead

## CIM Series- CIM31 (3216/ EIA 1206)



CIM Series display high impedance because it is composed of a multilayered internal conductor and has excellent attenuation characteristics for wide band frequency.

### FEATURES

- The smallest beads suitable for surface mounting
- Perfect shape for automatic mounting, with no directionality.
- Excellent solderability and high heat resistance for either flow or reflow soldering
- Monolithic inorganic material construction for high reliability
- Closed magnetic circuit configuration avoids crosstalk and is suitable for high density PCBs.

### APPLICATION

High frequency EMI prevention application to computers, printers, VCRs, TVs and portable telephones.

### SPECIFICATION

- Operating temperature range  $-55$  to  $+125^{\circ}\text{C}$
- Storage temperature range  $-10$  to  $+40^{\circ}\text{C}$
- Relative humidity 30 to 70%

### PRODUCT IDENTIFICATION

<b>CI</b>	<b>M</b>	<b>31</b>	<b>U</b>	<b>101</b>	<b>N</b>	<b>E</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Chip Beads

(2) Multi-layer type

(3) Dimension

(4) Material Code

P,U: Broad impedance, especially suppresses noise in the 10~200MHz range

J: Suppresses noise in the 100~300MHz range

K: Suppresses noise in the 200MHz above

N: Suppresses noise in the 200~500MHz range

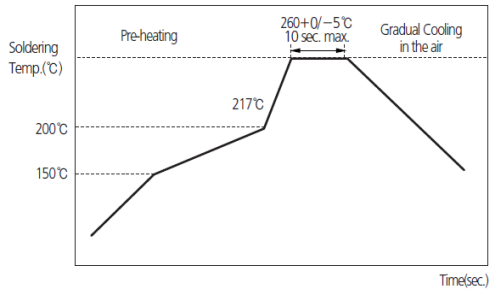
(5) Nominal impedance (300:30 $\Omega$ , 121:120 $\Omega$ )

(6) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)

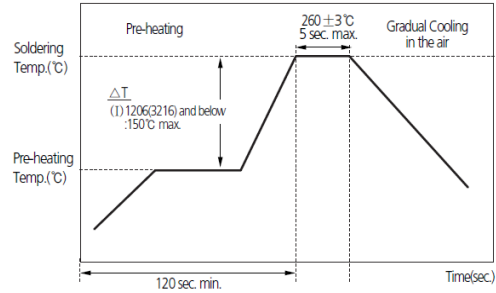
(7) Packaging(C:paper tape, E:embossed tape)

RECOMMENDED SOLDERING CONDITION

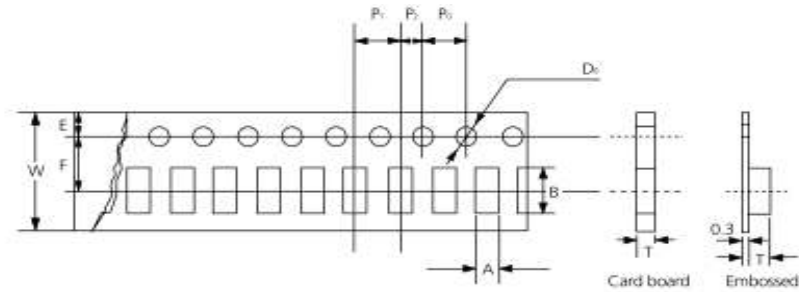
REFLOW SOLDERING



FLOW SOLDERING



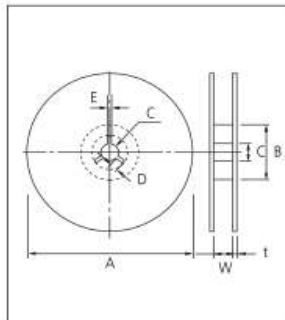
PACKAGING



Unit: mm

Type	03	05	10	21			22	31			32	41	43		
Tape	Card	Card	Card	Embossed			Card	Embossed			Card	Embossed	Embossed		
Chip Thickness	0.3	0.5	0.8	0.85	1.0	1.25	0.85	1.2	0.6	0.8	1.1	0.85	1.3	1.6 (1.2)	1.5
Chip Cavity	A	0.40 ±0.06	0.65 ±0.1	1.0 ±0.2	1.5 ±0.2	1.5 ±0.2	1.45 ±0.1	2.39 ±0.10	1.9 ±0.2	1.9 ±0.2	1.9 ±0.2	2.0 ±0.2	2.9 ±0.2	1.9 ±0.2	3.5 ±0.2
	B	0.70 ±0.06	1.15 ±0.1	1.8 ±0.2	2.3 ±0.2	2.3 ±0.2	2.4 ±0.2	2.79 ±0.10	3.6 ±0.2	3.6 ±0.2	3.6 ±0.2	3.6 ±0.2	4.9 ±0.2	4.9 ±0.2	4.9 ±0.2
T max	0.45	0.8	1.1	1.5	2.0	2.0	0.95 ±0.1	1.80 ±0.10	1.15	1.4	1.4	1.1	1.55	1.8	1.78
W	8 ±0.2	8 ±0.2	8 ±0.2	8 ±0.2	8 ±0.2	8 ±0.2	8.0 ±0.3	8.0 ±0.3	8 ±0.2	8 ±0.2	8 ±0.2	8 ±0.2	8 ±0.2	12 ±0.2	12 ±0.2
F	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	5.5 ±0.05	5.5 ±0.05
E	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1
P1	2 ±0.05	2 ±0.05	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	8.0 ±0.1	8.0 ±0.1
P2	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2.0 ±0.1	2.0 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1
P3	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1
Dc	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1	∅1.5 ±0.1
Quantity / Reel (PCS)	10,000 (15,000)	10,000	4,000	4,000	3,000	2,000	4,000	2,000	4,000	3,000	3,000	4,000	2,500	2,000 (5,000)	1,000

• Reel dimensions



Unit: mm

Symbol	Tape Width	A	B	C	D
7" Reel	8mm	∅180+0/-3	∅60+1/-0	∅13±0.3	4±0.2
	12mm	∅180+0/-3	∅60+1/-0	∅13±0.3	4±0.2
10" Reel	8mm	∅258+0/-3	∅80+1/-0	∅13±0.3	4±0.2
	12mm	∅258+0/-3	∅80+1/-0	∅13±0.3	4±0.2
13" Reel	8mm	∅330±2.0	∅80±1.0	∅13±0.3	4±0.2
	12mm	∅330±2.0	∅80±1.0	∅13±0.3	4±0.2

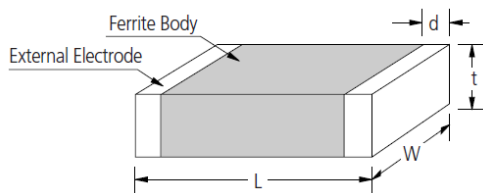
  

Symbol	Tape Width	E	W	t
7" Reel	8mm	2.0±0.5	9±0.5	1.2±0.2
	12mm	2.0±0.5	13±0.5	1.2±0.2
10" Reel	8mm	2.0±0.5	9±0.5	1.8±0.2
	12mm	2.0±0.5	13±0.5	1.8±0.2
13" Reel	8mm	2.0±0.5	9±0.5	2.2±0.2
	12mm	2.0±0.5	13±0.5	2.2±0.2

# Multilayer Chip Bead

## 1. Model : CIM3216 Type

## 2. Dimension

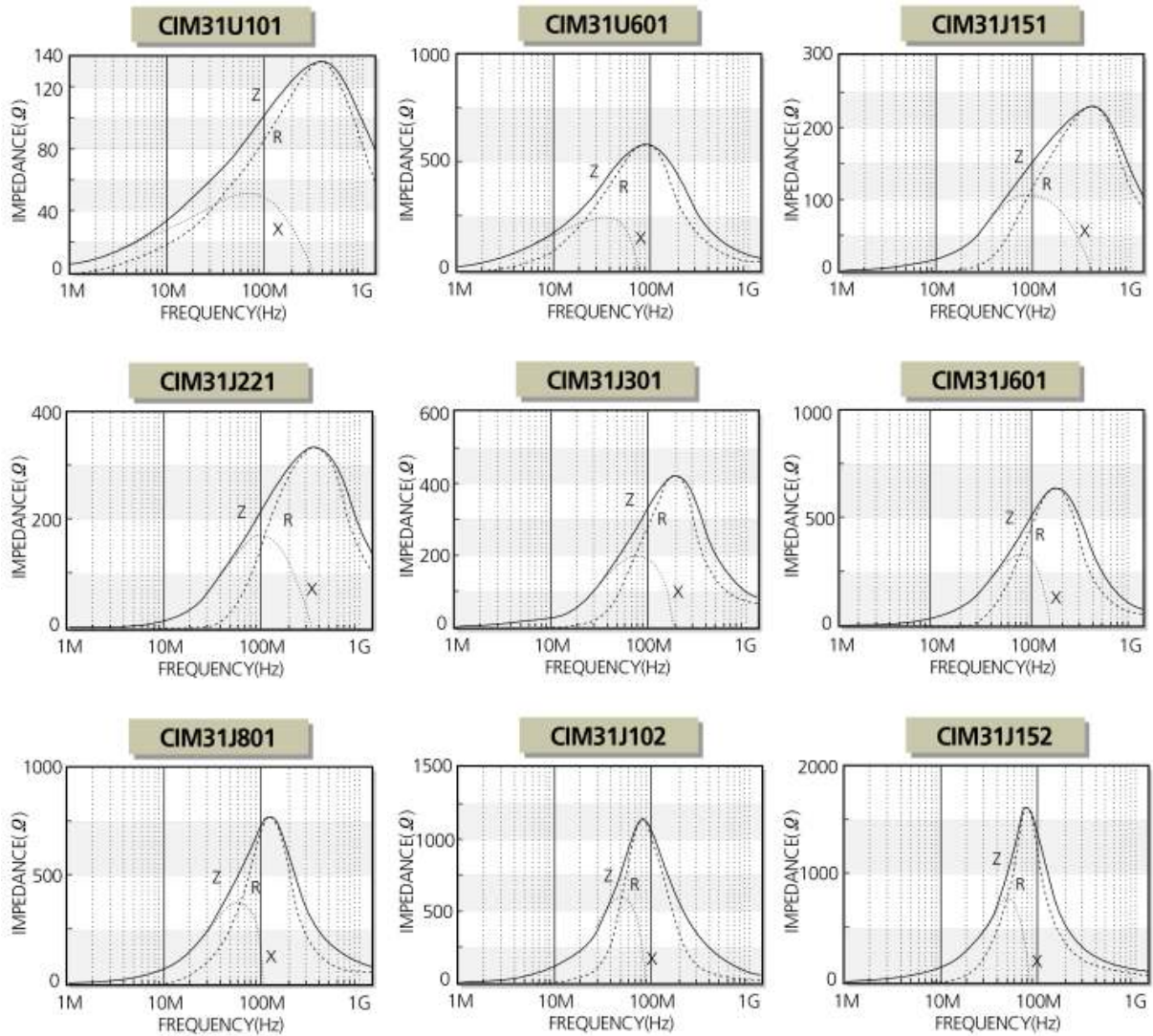


Type	Dimension [mm]			
	L	W	t	d
31	3.2±0.2	1.6±0.2	1.1±0.2	0.5+0.2 -0.3

## 3. Description

Part no.	Thickness (mm)	Impedance ( $\Omega$ )±25%@100MHz	DC Resistance ( $\Omega$ ) Max.	Rated Current (mA) Max.
CIM31U101	1.1±0.2	10	0.15	500
CIM31U601	1.1±0.2	600	0.3	400
CIM31J151	1.1±0.2	150	0.2	500
CIM31J221	1.1±0.2	220	0.2	400
CIM31J301	1.1±0.2	300	0.25	400
CIM31J601	1.1±0.2	600	0.3	400
CIM31J801	1.1±0.2	800	0.4	400
CIM31J102	1.1±0.2	1000	0.45	400
CIM31J152	1.1±0.2	1500(at 70MHz)	0.55	300

## 4. Characteristics data



■ NOTICE :All specifications are subject to change without previous notice. Please contact with product representatives or engineers to check specifications.