SAMSUNG ELECTRO-MECHANICS

Chip Bead *For High Current*

CIC Series- CIC21 (2012 EIA 0805)

The CIC Series can be used in high current owing to their low DC resistance.
They can match power lines to maximum of 3A DC

FEATURES

- Smallest beads used in high current.
  (CIC: ~ 3A)

APPLICATION

- Suppression of noise in power line

SPECIFICATION

- Operating temperature range –55 to +125°C
- Storage temperature range –10 to +40°C
- Relative humidity 30 to 70%

PRODUCT IDENTIFICATION

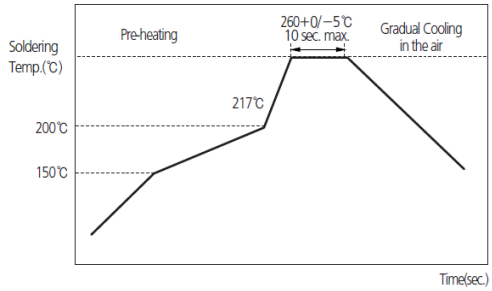
CI	C	21	P	110	N	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Chip Beads
(2) For High current(~3A)
(3) Dimension
(4) Material Code
P: Broad impedance, especially suppresses noise in the 10~200MHz range
J: Suppresses noise in the 100~300MHz range
(5) Nominal impedance (110:11Ω, 221:220Ω)
(6) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
(7) Packaging(C:paper tape, E:embossed tape)

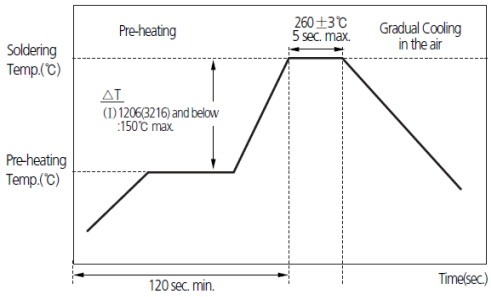
SAMSUNG ELECTRO-MECHANICS

RECOMMENDED SOLDERING CONDITION

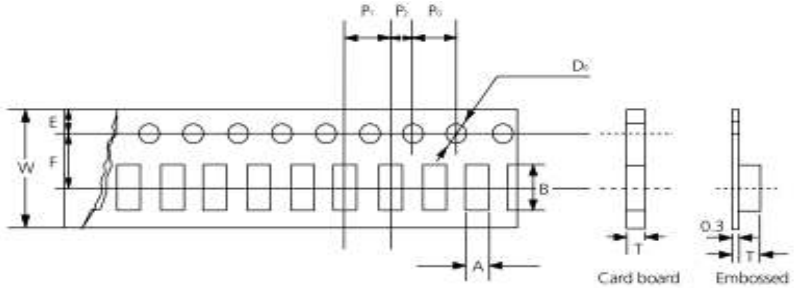
REFLOW SOLDERING



FLOW SOLDERING



PACKAGING

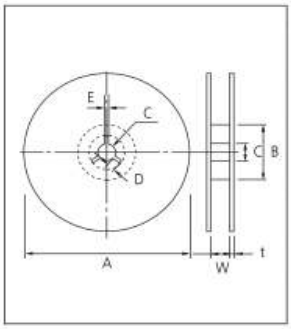


Unit: mm

Type		03	05	10	21				22	31				32	41	43
Tape		Card	Card	Card	Embossed			Card	Embossed	Embossed			Card	Embossed	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	1.5 ±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	2.3 ±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	3.6 ±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
P_1		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
P_2		2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2.0 ±0.1	2.0 ±0.05	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1	2 ±0.1
P_0		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
D_0		Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 +0.1 /-0	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 +0.1 /-0	Φ1.5 ±0.1	Φ1.5 ±0.1	Φ1.5 ±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 (3,000)	1,000

• Reel dimensions

Unit: mm



Symbol	Tape Width	A	B	C	D
7" Reel	8mm	Ø180+0/-3	Ø60+1/-0	Ø13±0.3	4±0.2
	12mm	Ø180+0/-3	Ø60+1/-0	Ø13±0.3	4±0.2
10" Reel	8mm	Ø258+0/-3	Ø80+1/-0	Ø13±0.3	4±0.2
	12mm	Ø258+0/-3	Ø80+1/-0	Ø13±0.3	4±0.2
13" Reel	8mm	Ø330±2.0	Ø80±1.0	Ø13±0.3	4±0.2
	12mm	Ø330±2.0	Ø80±1.0	Ø13±0.3	4±0.2

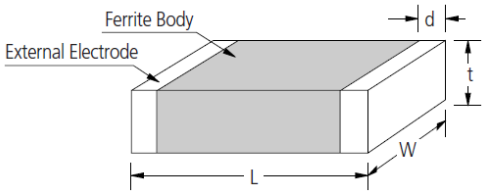
Symbol	Tape Width	E	W	t
7" Reel	8mm	2.0±0.5	9±0.5	1.2±0.2
	12mm	2.0±0.5	13±0.5	1.2±0.2
10" Reel	8mm	2.0±0.5	9±0.5	1.8±0.2
	12mm	2.0±0.5	13±0.5	1.8±0.2
13" Reel	8mm	2.0±0.5	9±0.5	2.2±0.2
	12mm	2.0±0.5	13±0.5	2.2±0.2

SAMSUNG ELECTRO-MECHANICS

Chip Bead *For High Current*

1. Model : CIC2012 Type

2. Dimension

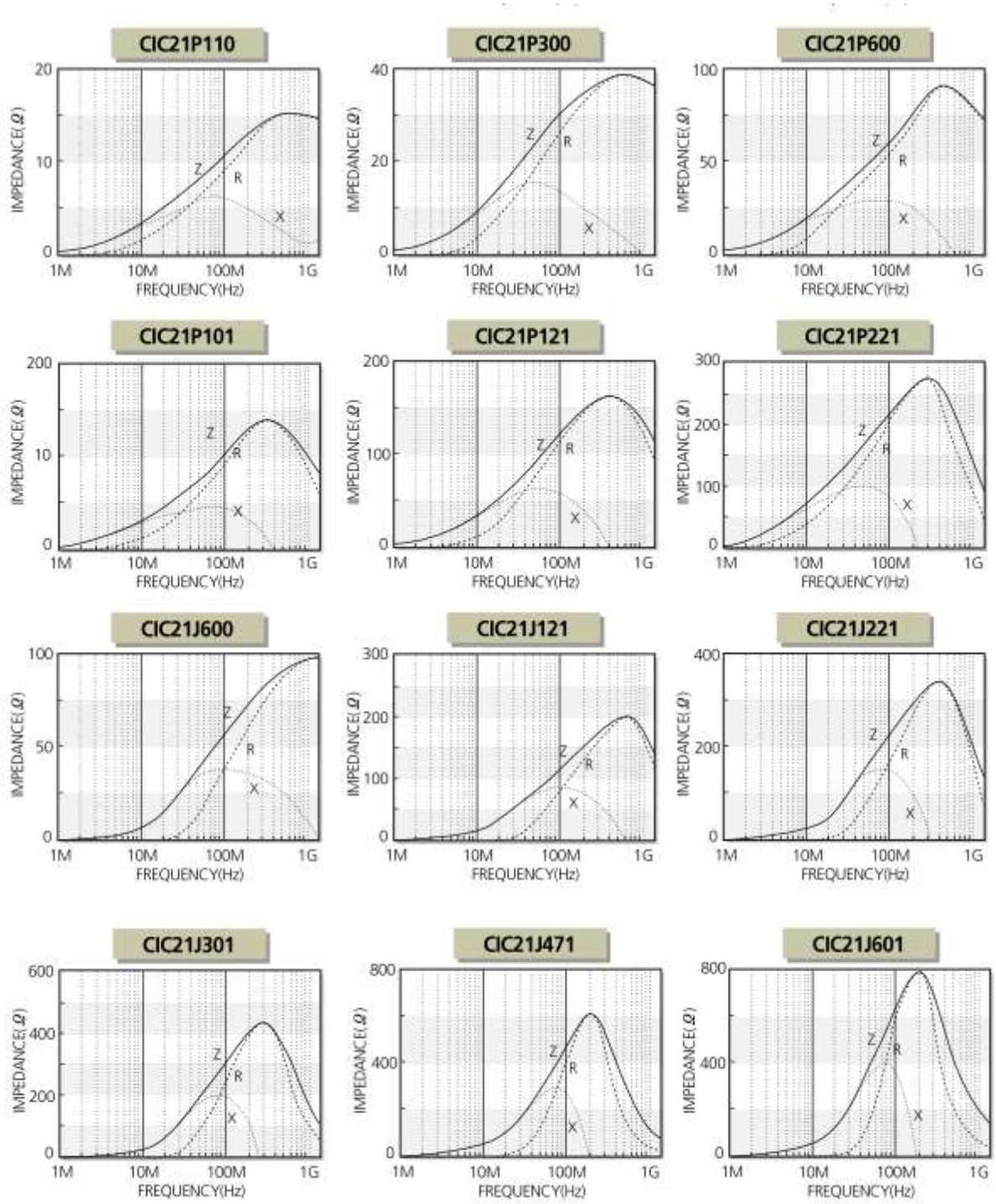


Type	Dimension [mm]			
	L	W	t	d
21	2.0±0.2	1.25±0.2	0.9±0.2	0.5+0.2 -0.3

3. Description

Part no.	Thickness (mm)	Impedance (Ω)±25%@100MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIC21P110	0.90±0.2	11	0.01	6000
CIC21P300	0.90±0.2	30	0.015	3500
CIC21P600	0.90±0.2	60	0.025	3500
CIC21P101	0.90±0.2	100	0.04	3500
CIC21P121	0.90±0.2	120	0.05	2000
CIC21P221	0.90±0.2	220	0.05	2000
CIC21J600	0.90±0.2	60	0.03	2500
CIC21J121	0.90±0.2	120	0.05	2500
CIC21J221	0.90±0.2	220	0.05	1500
CIC21J301	0.90±0.2	300	0.10	1500
CIC21J471	0.90±0.2	470	0.08	1500
CIC21J601	0.90±0.2	600	0.15	1000

4. Characteristics data



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