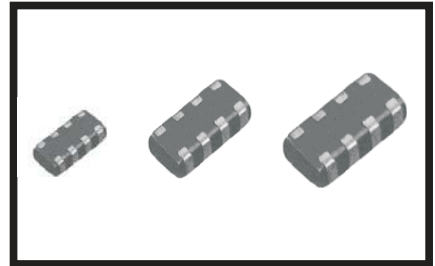


片式磁珠排 FERRITE CHIP BEADS ARRAY

■ 片式磁珠排 FERRITE CHIP BEADS ARRAY

OPERATING TEMP.	-40~+85°C
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● 特征 FEATURES

- 同尺寸下集多個磁珠于一體，適合于更高密度、更高效率的表面貼裝。
- 在較寬頻率範圍內具有優秀的阻抗頻率特性，對各種噪聲提供優良的抑制。
- 獨石設計，將漏磁、鄰近回路串擾減至最小。
- 應用于回流焊、波峰焊。
- Combine beads with the same dimension into one, suitable for SMT with higher density and efficiency.
- Super impedance frequency within the relatively wide range of frequency, providing excellent suppression to all kinds of noises.
- Monolithic designing, minimizing disturbance from magnetic shield and circuit nearby.
- Used in reflow or wave soldering.

● 應用 APPLICATIONS

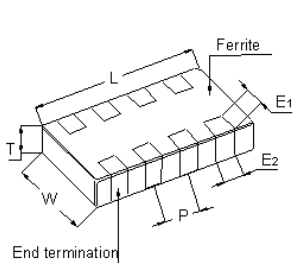
- 應用在HDTV、計算機I/O綫、液晶顯示器外圍總綫、打印機、傳真機等。
- Applied in HDTV, computer I/O wire, peripheral wire of LCD, printer, facsimile and so on.

● 產品規格型號的表示方法 ORDERING CODE

$\frac{CBA}{①}$ $\frac{321609}{②}$ $\frac{-4}{③}$ $\frac{U}{④}$ $\frac{310}{⑤}$ $\frac{T}{⑥}$

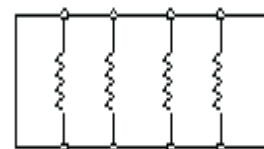
① 產品代號 Product Code		② 規格尺寸(L × W × T) (mm) Dimensions		③ 回路數 Circuit Num.		④ 材料 Material Code	⑤ 阻抗(Ω) Impedance		⑥ 包裝方式 Packaging Style	
CBA	片式磁珠排 Multilayer Chip Beads Array	321609	3.2 × 1.6 × 0.9	實例 Example 4	4 circuits	U	實例 Example 310 601	31 600	T	卷帶盤裝 Tape & Reel
									B	散裝 Bulk

● 外形尺寸 SHAPE AND DIMENSIONS



unit: mm

L	W	T
3.2 ± 0.2	1.6 ± 0.2	0.9 ± 0.1
E1	E2	P
0.35 ± 0.2	0.3 ± 0.2	0.8 ± 0.1

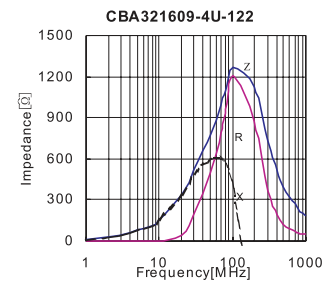
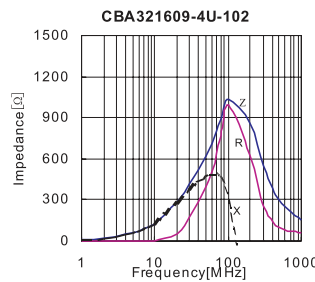
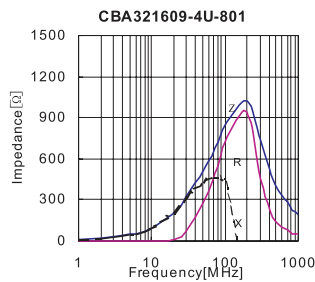
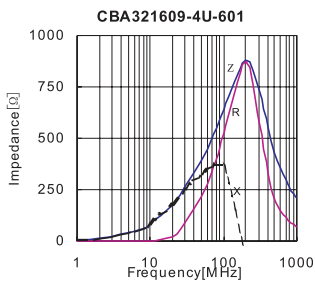
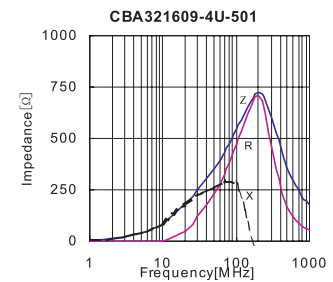
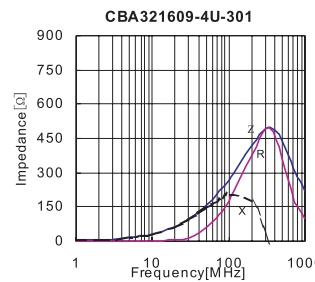
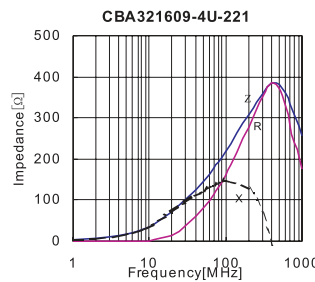
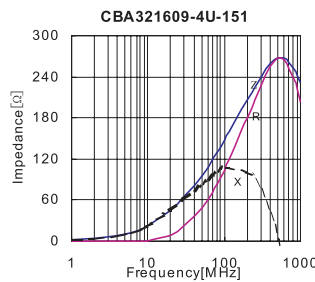
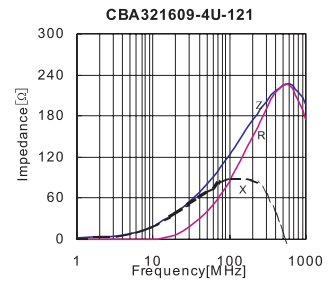
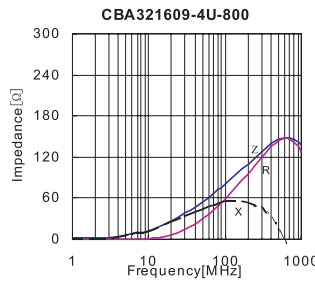
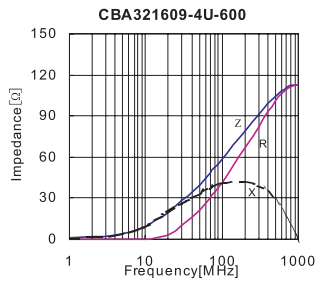
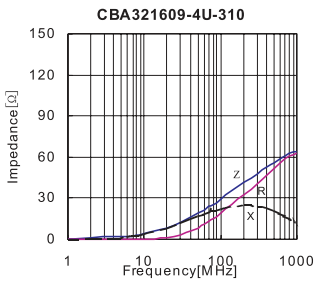


● 電性能參數 ELECTRICAL CHARACTERISTICS

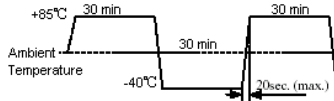
3216 TYPE

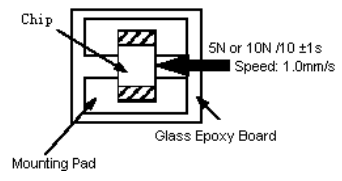
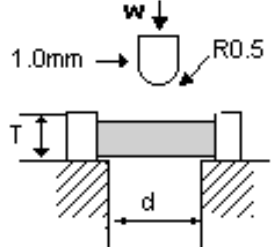
Part No.	Impedance(Ω) At 100MHz	DCR (Ω)Max	I _r (mA)Max
CBA321609-4U-310	31 \pm 25%	0.10	500
CBA321609-4U-600	60 \pm 25%	0.15	500
CBA321609-4U-800	80 \pm 25%	0.35	500
CBA321609-4U-121	120 \pm 25%	0.35	500
CBA321609-4U-151	150 \pm 25%	0.35	500
CBA321609-4U-221	220 \pm 25%	0.45	300
CBA321609-4U-301	300 \pm 25%	0.50	250
CBA321609-4U-501	500 \pm 25%	0.70	200
CBA321609-4U-601	600 \pm 25%	0.70	200
CBA321609-4U-801	800 \pm 25%	0.70	100
CBA321609-4U-102	1000 \pm 25%	0.80	50
CBA321609-4U-122	1200 \pm 25%	0.90	50

■ 片式磁珠排
FERRITE CHIP BEADS ARRAY



■ 可靠性測試
RELIABILITY TESTING

Type	Item	Specified value	Test methods
1	Operating temperature range	-40 to +125°C	
2	Storage temperature range	-10 to +40°C	
3	Solderability	At least 90% of terminal electrode is covered by new solder	Solder temperature: 230±5°C Duration: 4±1S Preheating temperature: 120 to 150°C Preheating time: 60S immersion into the colophony flux for 3 to 5 sec. Flux: immersion into methanol solution with colophony for 3 to 5 sec. Immersion speed: 25mm/sec
4	Resistance to soldering	Appearance: No significant abnormality. At least 75% of terminal electrode is covered by new solder Impedance change: within ±20% Inductor change: within ±10%	Solder temperature: 260±5°C Duration: 10±0.5S Preheating temperature: 120 to 150°C Preheating time: 60S immersion into the colophony flux for 3 to 5 sec. Flux: immersion into methanol solution with colophony for 3 to 5 sec. Immersion speed: 25mm/sec
5	Thermal shock	Appearance: No significant abnormality. Impedance change: within ±30% Inductor change: within ±10% Q value change(ferrite):within ±30% Q value change(ceramic):within ±20%	Temperature: -40°C for 30±3min +85°C for 30±3min Transforming interval :max 20 sec Number of cycles: 32 
6	Loading at low temperature	Appearance: No significant abnormality. Impedance change: within ±20% Inductor change: within ±10%	Temperature: -55±2°C Duration: 500 ⁺²⁴ ₋₀ hrs
7	Loading at high temperature	Appearance: No significant abnormality. Impedance change: within ±30% Inductor change: within ±10% Q value change(ferrite):within ±30% Q value change(ceramic):within ±20%	Temperature: 85±2°C Duration: 1000 ⁺²⁴ ₋₀ hrs Applied current: Rated current
8	Loading under Damp Heat	Appearance: No significant abnormality. Impedance change: within ±30% Inductor change : within ±10% Q value change(ferrite):within ±30% Q value change(ceramic):within ±20%	Temperature: 55±2°C Duration: 500 ⁺²⁴ ₋₀ hrs Humidity: 90 to 95%RH Applied current: Rated current

Type	Item	Specified value	Test methods								
9	Vibration	Appearance: No significant abnormality. Impedance change: within $\pm 30\%$ Inductor change: within $\pm 10\%$ Q value change (ferrite): within $\pm 30\%$ Q value change (ceramic): within $\pm 20\%$	Amplitude: 1.5mm Directions: 2hrs each in X Y Z direction Frequency range: 10 to 55 to 10Hz (min) Aookued firce: 5N force for 1005 and 1608 series. 10N force for 2012、3216、3225、4516、4532 series. Keep time: $10 \pm 1S$								
10	Adhesion of electrode	The termination and body should be no damage	Applied force: 5N force for 1005 and 1608 series. 10N force for 2012、3216、3225、4516、4532series. Keep time : $10 \pm 1S$ 								
11	Resistance to pressure of substrate	The body shall not be damaged by forces applied on the right. <table border="1" data-bbox="454 1209 949 1288"> <tbody> <tr> <td>d</td> <td>1.3</td> <td>1.3</td> <td>2.0</td> </tr> <tr> <td>w</td> <td>2.0</td> <td>3.0</td> <td>4.0</td> </tr> </tbody> </table>	d	1.3	1.3	2.0	w	2.0	3.0	4.0	
d	1.3	1.3	2.0								
w	2.0	3.0	4.0								

Note: When there are questions concerning, measurement shall be made after 24 ± 2 hrs of recovery under the standard condition.

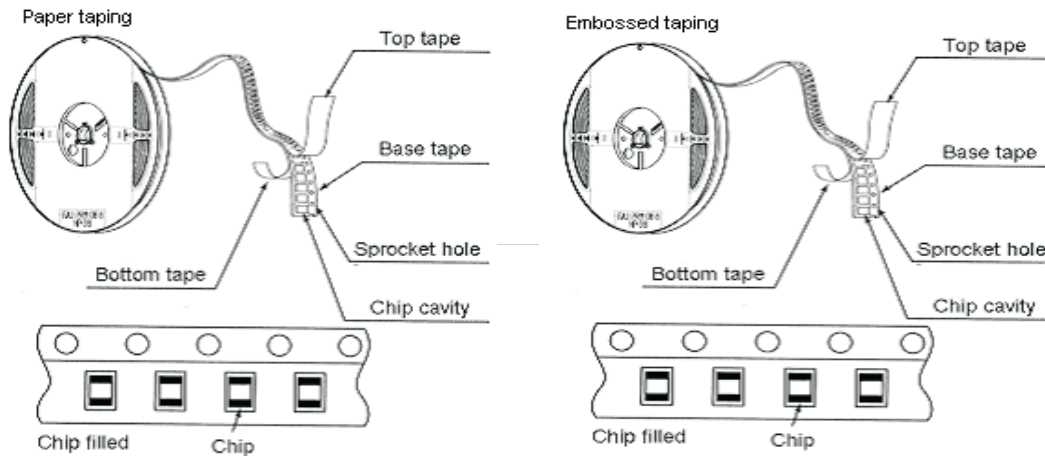
包裝PACKAGING

(VHF、CMI、CBG、CBW、CBH、CBY、CBA、CBM SERIES)

STANDAE QUANTITY

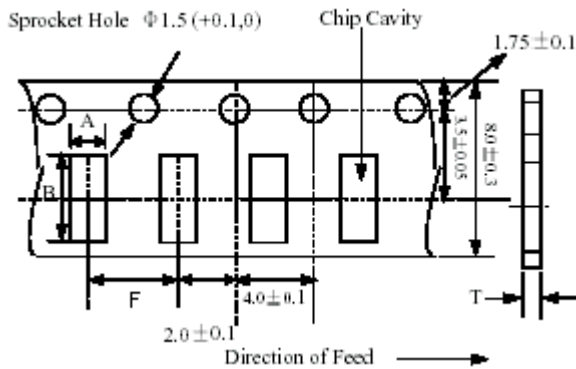
Type	1000505	160808	201209	321609	321611	322513	451616	453215	321609 (磁珠排)
Quantity(pcs)	10000	4000	4000	4000	3000	3000	5000	3000	3000

TAPING DRAWINGS



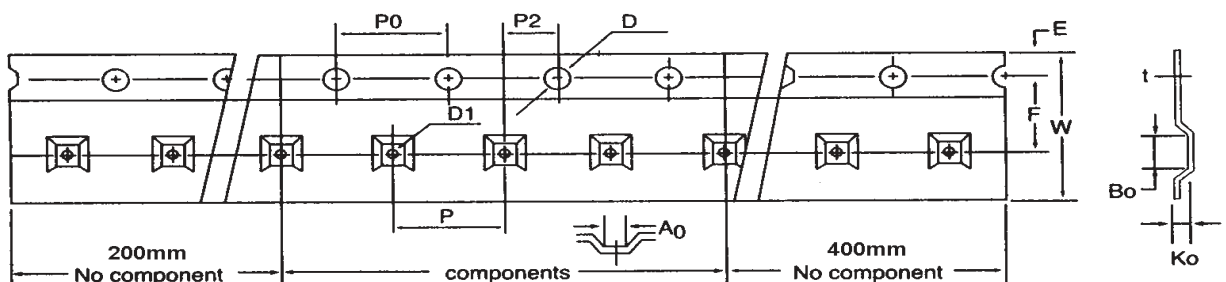
TAPING DIMENSIONS (UNIT: mm)

Paper tape



Part NO.	A	B	F	T
100505	0.65 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	0.62max
160808	1.1 ± 0.1	1.9 ± 0.1	4.0 ± 0.05	1.1max
201209	1.5 ± 0.1	2.3 ± 0.1	4.0 ± 0.05	1.1max
321609	1.9 ± 0.1	3.5 ± 0.1	4.0 ± 0.05	0.97max

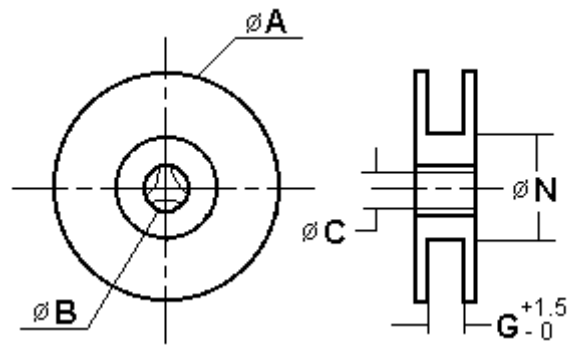
Embossed tape



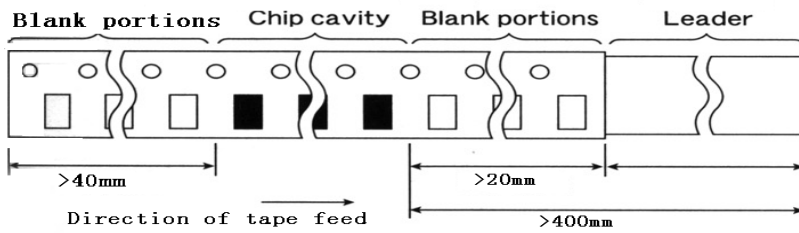
	2012	3216	3225	4516	4532	3216(磁珠排)
W	8.1+/-0.2	8.1+/-0.2	8.1+/-0.2	12.0+/-0.2	12.0+/-0.2	8.1+/-0.2
P	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	8.0+/-0.10	4.0+/-0.10
E	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10
F	3.50+/-0.10	3.50+/-0.10	3.50+/-0.10	5.50+/-0.10	5.50+/-0.10	3.50+/-0.10
D	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05
D1	1.50 ^{+0.25} ₋₀	1.50 ^{+0.25} ₋₀	1.50 ^{+0.25} ₋₀	1.50 ^{+0.25} ₋₀	1.50 ^{+0.25} ₋₀	1.50 ^{+0.25} ₋₀
P ₀	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10
P ₀ 10	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20
P2	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05
A ₀	1.52+/-0.10	1.90+/-0.10	2.80+/-0.10	1.93+/-0.10	3.66+/-0.10	1.90+/-0.10
B ₀	2.41+/-0.10	3.51+/-0.10	3.50+/-0.10	4.95+/-0.10	4.95+/-0.10	3.51+/-0.10
t	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10
K ₀	1.35+/-0.10	1.27+/-0.10	1.55+/-0.10	1.85+/-0.10	1.74+/-0.10	1.10+/-0.10

• REEL DIMENSIONS(UNIT:mm)

	A	B	C	N	G
CF-8	178±2.0	22±2.0	12.5±1.5	57±2.0	8
CF-12	330±2.0	22±2.0	12.5±1.5	98±2.0	12



• LEADER AND BLANK PORTION



• PEELING OFF FORCE : 0.05 to 0.7N in the direction show below.

