

FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Monolithic structure for excellent reliability
- Smaller DC resistance and larger allowable current
- Can be used in a wide range of frequency to suppress EMI

APPLICATIONS

- Noise suppression for power lines or large current signal lines of electric equipments, such as communication equipments, computers, A/V equipments, auto electronics, etc

Part Numbering

CVB	3216	P	150	T
A	B	C	D	E

A:ASIM Multilayer Chip Ferrite High Frequency Beads

B:Dimension L*W*H:3.2x1.6x0.9

C:Large Current

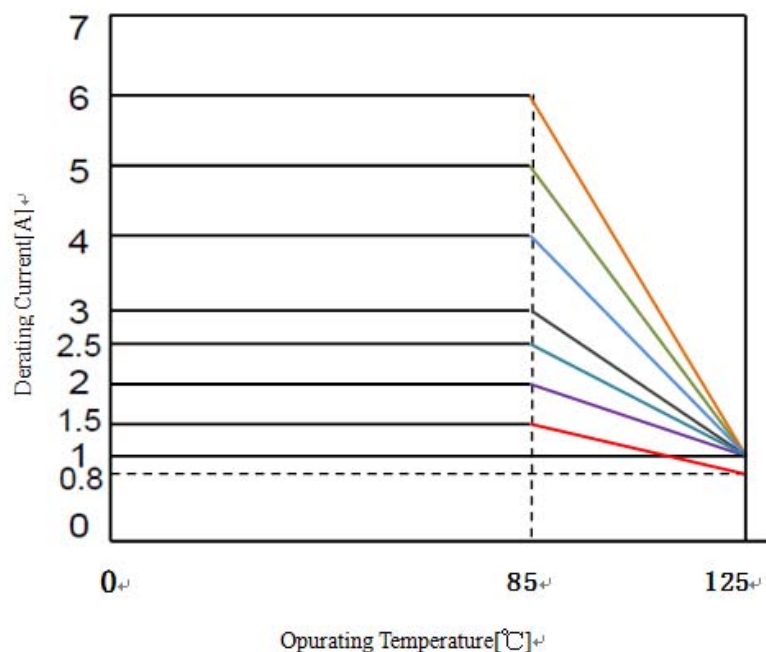
D:Impedance 150:15Ω

E: Tape

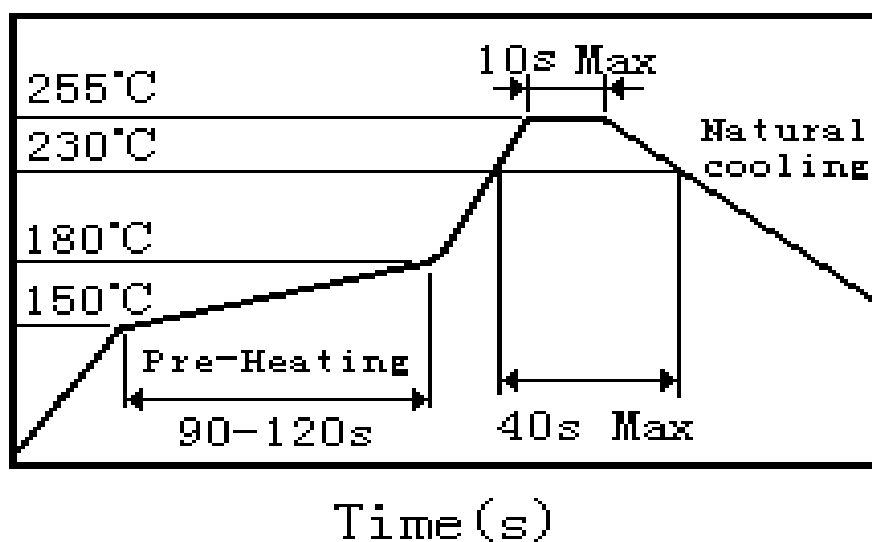
Electrical characteristic(T=25°C,unless otherwise specified)

Part NO.	Tolerance	Impedance (Ω)	RDC (Ω)max	Test frequency (MHz)	Test voltage (mV)	Rated current (mA)max
CVB3216P150T	9~21 Ω	15	0.015	100	50	6000
CVB3216P190T	12 ~25 Ω	19	0.015	100	50	6000
CVB3216P260T	$\pm 25\%$	26	0.015	100	50	6000
CVB3216P280T	$\pm 25\%$	28	0.015	100	50	6000
CVB3216P300T	$\pm 25\%$	30	0.015	100	50	6000
CVB3216P310T	$\pm 25\%$	31	0.020	100	50	5000
CVB3216P500T	$\pm 25\%$	50	0.020	100	50	5000
CVB3216P600T	$\pm 25\%$	60	0.025	100	50	5000
CVB3216P700T	$\pm 25\%$	70	0.035	100	50	4000
CVB3216P800T	$\pm 25\%$	80	0.035	100	50	4000
CVB3216P101T	$\pm 25\%$	100	0.035	100	50	4000
CVB3216P121T	$\pm 25\%$	120	0.035	100	50	4000
CVB3216P151T	$\pm 25\%$	150	0.045	100	50	3000
CVB3216P181T	$\pm 25\%$	180	0.055	100	50	3000
CVB3216P221T	$\pm 25\%$	220	0.055	100	50	3000
CVB3216P301T	$\pm 25\%$	300	0.065	100	50	2500
CVB3216P501T	$\pm 25\%$	500	0.080	100	50	2500
CVB3216P601T	$\pm 25\%$	600	0.085	100	50	2200
CVB3216P801T	$\pm 25\%$	800	0.11	100	50	2100
CVB3216P102T	$\pm 25\%$	1000	0.12	100	50	2100

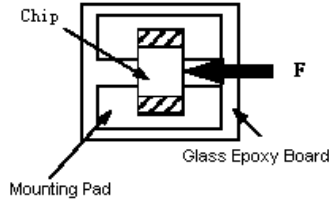
When Operating temperatures exceed +85°C, derating of current is necessary for chip ferrite beads for which rated current is 1A and over. Please apply the derating curve shown in chart according to the operating temperature.

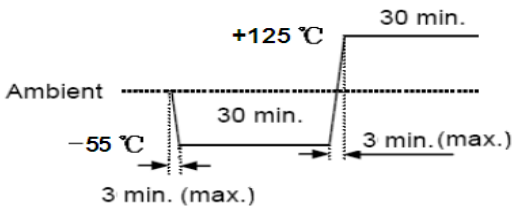


Reflow soldering profile

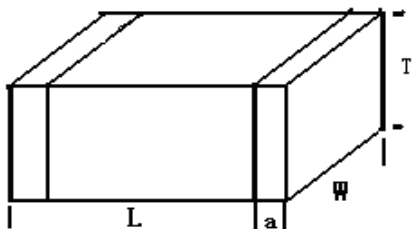


Reliability Testing Items

No.	Items	Requirements	Test Methods and Remarks
1	Operating Temperature Range	-55°C ~ +125°C	Includes product surface temperature rise
2	Solder ability	At least 95% of terminal electrode should be covered with solder	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 245 ± 5°C Immersion tin depth: 10mm Duration : 5 ± 1s Dip performance to a flux of about: 3 ~ 5 s
3	Resistance to Soldering	At least 95% of terminal electrode should be covered with solder. No mechanical damage. Inductance : Impedance change: within ±30%	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 260°C ± 5°C Immersion tin depth: 10mm Duration : 10 ± 1s Dip performance to a flux of about: 3 ~ 5 s
4	Adhesion of electrode	The termination and body should be no damage.	Applied force: 5N force for 1005 series; 7N force for 1608 series; 10N force for 2012, 3216 series. 15N force for 3225, 4516, 4532 series. Keep time : 10 ± 1s 
5	Low temperature resistance	No mechanical damage. Impedance change: within ±30%	Temperature: -55 ± 2°C +24 Testing time: 1000 ⁻⁰ h

No.	Items	Requirements	Test Methods and Remarks
6	Bending strength	No mechanical damage	Testing board: glass epoxy-resin substrate For 0.5 mm/s compression speed, curvature: 2mm, hold time $20s \pm 1s$.
7	Vibration	No mechanical damage. Impedance change: within $\pm 30\%$	Amplitude modulation: 1.5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
8	High temperature resistance	No mechanical damage. Impedance change: within $\pm 30\%$	Testing time: 1000^{+24}_{-0} h Temperature: $125 \pm 2^{\circ}\text{C}$
9	Static Humidity	No mechanical damage. Impedance change: within $\pm 30\%$	Humidity: 90% to 95% RH Temperature: $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Testing time: 1000^{+24}_{-0} h
10	High temperature load	No mechanical damage. Impedance change: within $\pm 30\%$	impose current: at room Testing time: 1000^{+24}_{-0} h Temperature: $85 \pm 2^{\circ}\text{C}$
11	Temperature Shock	No mechanical damage. Impedance change: within $\pm 30\%$	Temperature: -55°C for $30 \pm 3\text{min}$ $+125^{\circ}\text{C}$ for $30 \pm 3\text{min}$ Number of cycles: 100  The diagram illustrates a temperature shock test cycle. It starts at 'Ambient' temperature. The first step is a ramp down to -55°C, which is held for 30 minutes. This is followed by a ramp up to $+125^{\circ}\text{C}$, which is also held for 30 minutes. The cycle then returns to 'Ambient' temperature, with a maximum dwell time of 3 minutes. The number of cycles is specified as 100.
Note: When there are questions concerning, measurement shall be made after $24 \pm 2\text{hrs}$ of recovery under the standard condition.			

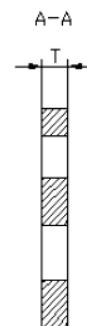
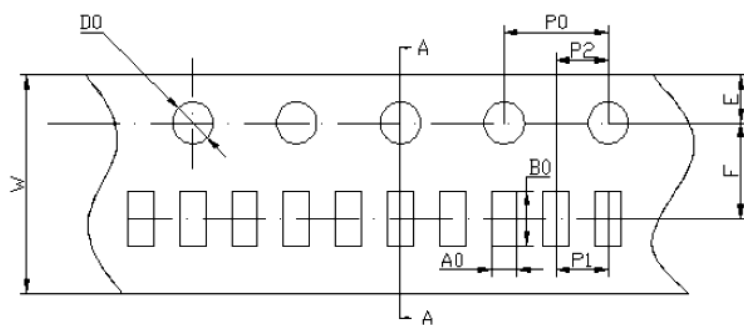
Dimension & Inner-configuration



Unit: mm(inch)

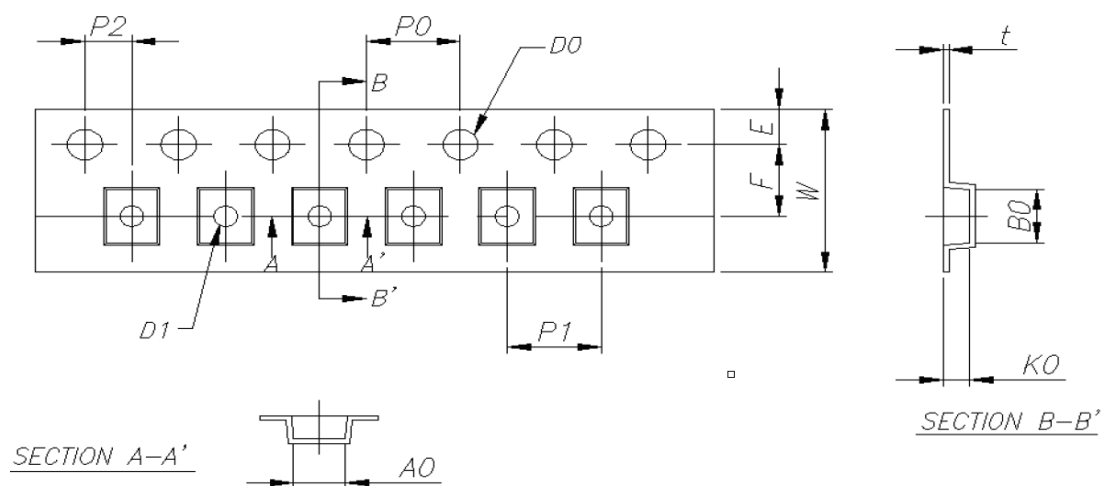
Size	L	W	T	a
321609	3.2 ± 0.20 (0.126 $\pm$ 0.008)	1.6 ± 0.20 (0.063 $\pm$ 0.008)	0.9 ± 0.20 (0.035 $\pm$ 0.008)	0.5 ± 0.3 (0.020 $\pm$ 0.012)

Paper tape



Size	A0	B0	W	F	E	P1	P2	P0	D0	T
321609	1.90 ± 0.2	3.50 ± 0.2	8.0 ± 0.2	3.5 ± 0.1	1.75 ± 0.2	4.0 ± 0.2	2.0 ± 0.1	4.0 ± 0.2	1.55 ± 0.1	0.95 ± 0.1

Embossed tape



Size	453215	451616	322513
W	12.00 $\pm$ 0.20	12.00 $\pm$ 0.20	8.00 $\pm$ 0.20
E	1.75 $\pm$ 0.10	1.75 $\pm$ 0.10	1.75 $\pm$ 0.10
F	5.50 $\pm$ 0.10	5.50 $\pm$ 0.10	3.50 $\pm$ 0.10
D0	1.50 $\pm$ 0.10	1.50 $\pm$ 0.10	1.50 $\pm$ 0.10
D1	1.50 $\pm$ 0.10	1.50 $\pm$ 0.10	1.00 $\pm$ 0.10
P ₀	4.00 $\pm$ 0.10	4.00 $\pm$ 0.10	4.00 $\pm$ 0.10
P ₀ 10	40.0 $\pm$ 0.20	40.0 $\pm$ 0.20	40.0 $\pm$ 0.20
P1	8.00 $\pm$ 0.10	4.00 $\pm$ 0.10	4.00 $\pm$ 0.10
P2	2.00 $\pm$ 0.10	2.00 $\pm$ 0.10	2.0 $\pm$ 0.05
A ₀	3.66 $\pm$ 0.10	1.93 $\pm$ 0.10	2.77 $\pm$ 0.10
B ₀	4.95 $\pm$ 0.10	4.95 $\pm$ 0.10	3.42 $\pm$ 0.10
K ₀	1.85 $\pm$ 0.10	1.93 $\pm$ 0.10	1.55 $\pm$ 0.10
t	0.24 $\pm$ 0.20	0.24 $\pm$ 0.20	0.23 $\pm$ 0.20