

Multilayer Chip Beads



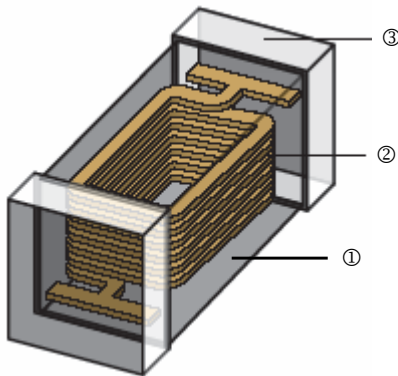
■ Features

- Effective EMI protection
- Low DC resistance
- High soldering heat resistance
- Multiple size availability

■ Applications

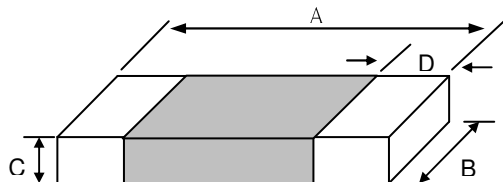
- Computers and Peripheral Equipment
- VCRS, Television, Pagers
- Cellular Phones
- Digital Communication Equipment
- Various Electronics Equipments
- Circuit Where a Stable Ground is Unavailable

■ Construction



① Ferrite	② Internal Electrode	③ Electrode Plating (Ag/Ni/Sn)
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■ Dimensions



Unit : mm

Type	Size (Inch)	A	B	C	D	Weight (g) (1000pcs)
CBM01	0201	0.6±0.03	0.30±0.03	0.30±0.03	0.1~0.2	1.1
CBM02	0402	1.0±0.10	0.50±0.10	0.5±0.10	0.1~0.35	2.6
CBM03	0603	1.6±0.20	0.80±0.15	0.8±0.15	0.1~0.6	6.2
CBM05	0805	2.0±0.20	1.25±0.20	0.9±0.20	0.2~0.8	10
CBM04	1204	3.2±0.20	1.60±0.20	1.1±0.20	0.2~1.0	30
CBM10	1210	3.2±0.20	2.50±0.20	1.3±0.20	0.2~1.0	54
CBM08	1808	4.5±0.25	1.60±0.20	1.6±0.20	0.2~1.0	60
CBM12	1812	4.5±0.25	3.20±0.20	1.5±0.20	0.2~1.0	62

Multilayer Chip Beads
Part Numbering

CBM	03	Y	T	A	N	601
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Material Code	Current	Impedance
	01: 0201 02: 0402 03: 0603 05: 0805 04: 1204 10: 1210 08: 1808 12: 1812	Y: $\pm 25\%$	T: Taping Reel	A: A material B: B material H: H material K: K material	H: High current G: Medium current N: General current	090: 9 Ω 110: 11 Ω 451: 450 Ω 152: 1500 Ω

Standard Electrical Specifications(for General Signal Line Use)
CBM01(060303) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM01YTAN400	40	$\pm 25\%$	100	0.30	300
CBM01YTAN500	50	$\pm 25\%$	100	0.30	300
CBM01YTAN600	60	$\pm 25\%$	100	0.35	300
CBM01YTAN700	70	$\pm 25\%$	100	0.35	300
CBM01YTAN121	120	$\pm 25\%$	100	0.45	200
CBM01YTAN151	150	$\pm 25\%$	100	0.50	200
CBM01YTAN221	220	$\pm 25\%$	100	0.75	200
CBM01YTAN301	300	$\pm 25\%$	100	0.90	150

CBM02(100505) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM02YTAN100	10	$\pm 25\%$	100	0.05	500
CBM02YTAN300	30	$\pm 25\%$	100	0.20	300
CBM02YTAN600	60	$\pm 25\%$	100	0.40	200
CBM02YTAN700	70	$\pm 25\%$	100	0.40	200
CBM02YTAN800	80	$\pm 25\%$	100	0.40	200
CBM02YTAN101	100	$\pm 25\%$	100	0.45	200
CBM02YTAN121	120	$\pm 25\%$	100	0.50	200
CBM02YTAN151	150	$\pm 25\%$	100	0.60	200
CBM02YTAN181	180	$\pm 25\%$	100	0.65	100
CBM02YTAN221	220	$\pm 25\%$	100	0.70	100
CBM02YTAN301	300	$\pm 25\%$	100	0.75	100
CBM02YTAN331	330	$\pm 25\%$	100	0.75	100
CBM02YTAN471	470	$\pm 25\%$	100	0.90	100
CBM02YTAN501	500	$\pm 25\%$	100	1.00	100
CBM02YTAN601	600	$\pm 25\%$	100	1.10	50
CBM02YTAN102	1000	$\pm 25\%$	100	1.50	50

■ We are capable to design according to customer special requirement

Multilayer Chip Beads
■ Standard Electrical Specifications(for General Signal Line Use)

CBM03(160808) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTAN190	19	$\pm 25\%$	100	0.10	400
CBM03YTAN310	31	$\pm 25\%$	100	0.10	400
CBM03YTAN520	52	$\pm 25\%$	100	0.15	400
CBM03YTAN600	60	$\pm 25\%$	100	0.15	400
CBM03YTAN800	80	$\pm 25\%$	100	0.15	400
CBM03YTAN101	100	$\pm 25\%$	100	0.15	400
CBM03YTAN121	120	$\pm 25\%$	100	0.15	400
CBM03YTAN151	150	$\pm 25\%$	100	0.15	400
CBM03YTAN181	180	$\pm 25\%$	100	0.20	400
CBM03YTAN201	200	$\pm 25\%$	100	0.20	400
CBM03YTAN221	220	$\pm 25\%$	100	0.20	400
CBM03YTAN301	300	$\pm 25\%$	100	0.30	400
CBM03YTAN401	400	$\pm 25\%$	100	0.30	400
CBM03YTAN451	450	$\pm 25\%$	100	0.30	400
CBM03YTAN601	600	$\pm 25\%$	100	0.35	400
CBM03YTAN751	750	$\pm 25\%$	100	0.35	400
CBM03YTAN102	1000	$\pm 25\%$	100	0.55	300
CBM03YTAN152	1500	$\pm 25\%$	100	0.60	200

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTAN170	17	$\pm 25\%$	100	0.10	300
CBM05YTAN260	26	$\pm 25\%$	100	0.10	300
CBM05YTAN310	31	$\pm 25\%$	100	0.10	300
CBM05YTAN520	52	$\pm 25\%$	100	0.15	300
CBM05YTAN600	60	$\pm 25\%$	100	0.15	300
CBM05YTAN800	80	$\pm 25\%$	100	0.15	300
CBM05YTAN101	100	$\pm 25\%$	100	0.20	300
CBM05YTAN121	120	$\pm 25\%$	100	0.20	300
CBM05YTAN151	150	$\pm 25\%$	100	0.20	300
CBM05YTAN221	220	$\pm 25\%$	100	0.25	300
CBM05YTAN301	300	$\pm 25\%$	100	0.25	300
CBM05YTAN401	400	$\pm 25\%$	100	0.30	300
CBM05YTAN531	530	$\pm 25\%$	100	0.35	300
CBM05YTAN601	600	$\pm 25\%$	100	0.35	300
CBM05YTAN102	1000	$\pm 25\%$	100	0.45	300
CBM05YTAN152	1500	$\pm 25\%$	100	0.70	300

■ We are capable to design according to customer special requirement

Multilayer Chip Beads
■ Standard Electrical Specifications(for General Signal Line Use)
CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAN190	19	±25%	100	0.10	800
CBM04YTAN260	26	±25%	100	0.10	800
CBM04YTAN310	31	±25%	100	0.10	800
CBM04YTAN520	52	±25%	100	0.15	800
CBM04YTAN600	60	±25%	100	0.15	500
CBM04YTAN700	70	±25%	100	0.15	500
CBM04YTAN101	100	±25%	100	0.20	450
CBM04YTAN121	120	±25%	100	0.20	450
CBM04YTAN151	150	±25%	100	0.20	450
CBM04YTAN221	220	±25%	100	0.20	350
CBM04YTAN301	300	±25%	100	0.20	350
CBM04YTAN401	400	±25%	100	0.25	350
CBM04YTAN601	600	±25%	100	0.25	350
CBM04YTAN751	750	±25%	100	0.30	350
CBM04YTAN102	1000	±25%	100	0.35	350
CBM04YTAN152	1500	±25%	100	0.40	350

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM10YTAN310	31	±25%	100	0.10	500
CBM10YTAN520	52	±25%	100	0.30	400
CBM10YTAN600	60	±25%	100	0.30	400

CBM08(451616) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM08YTAN600	60	±25%	100	0.20	500
CBM08YTAN800	80	±25%	100	0.30	400
CBM08YTAN101	100	±25%	100	0.30	400
CBM08YTAN151	150	±25%	100	0.50	200
CBM08YTAN601	600	±25%	100	0.80	200

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM12YTAN310	31	±25%	100	0.10	500
CBM12YTAN600	60	±25%	100	0.20	500
CBM12YTAN121	120	±25%	100	0.20	500
CBM12YTAN151	150	±25%	100	0.20	500

■ We are capable to design according to customer special requirement

Multilayer Chip Beads
■ Standard Electrical Specifications(for High Speed Signal Line Use)

CBM02(100505) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM02YTBN300	30	±25%	100	0.20	300
CBM02YTBN600	60	±25%	100	0.40	200
CBM02YTBN101	100	±25%	100	0.50	200
CBM02YTBN121	120	±25%	100	0.50	200
CBM02YTBN221	220	±25%	100	0.80	100
CBM02YTBN301	300	±25%	100	0.85	100
CBM02YTBN471	470	±25%	100	1.00	100
CBM02YTBN601	600	±25%	100	1.50	50

CBM03(160808) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTBN050	5	±25%	100	0.08	700
CBM03YTBN300	30	±25%	100	0.20	500
CBM03YTBN600	60	±25%	100	0.25	450
CBM03YTBN101	100	±25%	100	0.30	450
CBM03YTBN121	120	±25%	100	0.30	450
CBM03YTBN151	150	±25%	100	0.35	450
CBM03YTBN221	220	±25%	100	0.35	450
CBM03YTBN301	300	±25%	100	0.35	450
CBM03YTBN471	470	±25%	100	0.35	450
CBM03YTBN601	600	±25%	100	0.40	450
CBM03YTBN102	1000	±25%	100	0.60	300

CBM05(201209) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTBN050	5	±25%	100	0.07	500
CBM05YTBN300	30	±25%	100	0.15	300
CBM05YTBN600	60	±25%	100	0.15	300
CBM05YTBN750	75	±25%	100	0.20	300
CBM05YTBN101	100	±25%	100	0.20	300
CBM05YTBN121	120	±25%	100	0.20	300
CBM05YTBN221	220	±25%	100	0.25	200
CBM05YTBN301	300	±25%	100	0.25	200
CBM05YTBN601	600	±25%	100	0.25	200
CBM05YTBN751	750	±25%	100	0.30	200
CBM05YTBN102	1000	±25%	100	0.30	200
CBM05YTBN152	1500	±25%	100	0.35	200
CBM05YTBN182	1800	±25%	100	0.40	200
CBM05YTBN202	2000	±25%	100	0.40	200
CBM05YTBN222	2200	±25%	100	0.50	200
CBM05YTBN252	2500	±25%	100	0.60	200
CBM05YTBN272	2700	±25%	100	0.60	200

■ We are capable to design according to customer special requirement

Multilayer Chip Beads
■ Standard Electrical Specifications(for High Speed Signal Line Use)
CBM04(321611) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTBN190	19	±25%	100	0.10	500
CBM04YTBN310	31	±25%	100	0.15	500
CBM04YTBN600	60	±25%	100	0.20	500
CBM04YTBN101	100	±25%	100	0.25	300
CBM04YTBN121	120	±25%	100	0.25	300
CBM04YTBN201	200	±25%	100	0.25	300
CBM04YTBN301	300	±25%	100	0.30	300
CBM04YTBN601	600	±25%	100	0.35	300
CBM04YTBN751	750	±25%	100	0.35	300
CBM04YTBN102	1000	±25%	100	0.40	200
CBM04YTBN152	1500	±25%	100	0.45	200
CBM04YTBN202	2000	±25%	30	0.60	200

CBM10(322513) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM10YTBN310	31	±25%	100	0.10	500

CBM12(453215) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM12YTBN700	70	±25%	100	0.20	500

■ We are capable to design according to customer special requirement

Multilayer Chip Beads

■ Standard Electrical Specifications(for General Signal Line Frequency Higher Than A Use)

CBM02(100505) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM02YTKN300	30	±25%	100	0.15	300
CBM02YTKN600	60	±25%	100	0.30	200
CBM02YTKN101	100	±25%	100	0.50	200
CBM02YTKN121	120	±25%	100	0.50	200
CBM02YTKN221	220	±25%	100	0.80	100
CBM02YTKN301	300	±25%	100	0.85	100
CBM02YTKN471	470	±25%	100	1.00	100
CBM02YTKN601	600	±25%	100	1.50	50

CBM03(160808) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTKN471	470	±25%	100	0.55	200
CBM03YTKN601	600	±25%	100	0.65	200
CBM03YTKN751	750	±25%	100	0.70	200
CBM03YTKN102	1000	±25%	100	0.85	100
CBM03YTKN152	1500	±25%	100	0.90	100
CBM03YTKN202	2000	±25%	100	1.00	100
CBM03YTKN252	2500	±25%	100	1.00	50

CBM05(201209) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTKN800	80	±25%	100	0.30	300
CBM05YTKN601	600	±25%	100	0.35	200
CBM05YTKN751	750	±25%	100	0.35	200
CBM05YTKN102	1000	±25%	100	0.40	200
CBM05YTKN122	1200	±25%	100	0.40	200
CBM05YTKN152	1500	±25%	100	0.45	200
CBM05YTKN202	2000	±25%	100	0.60	200
CBM05YTKN252	2500	±25%	100	0.70	200

CBM04(321611) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTKN601	600	±25%	100	0.50	200
CBM04YTKN102	1000	±25%	100	0.70	200
CBM04YTKN122	1200	±25%	100	0.70	200

■ We are capable to design according to customer special requirement

Multilayer Chip Beads

■ Standard Electrical Specifications(for Ultra High Speed Signal Line Use)

CBM02(100505) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM02YTHN100	10	±25%	100	0.10	500
CBM02YTHN300	30	±25%	100	0.20	300
CBM02YTHN600	60	±25%	100	0.40	300
CBM02YTHN101	100	±25%	100	0.55	300
CBM02YTHN121	120	±25%	100	0.55	300
CBM02YTHN221	220	±25%	100	0.80	200
CBM02YTHN301	300	±25%	100	1.00	100
CBM02YTHN471	470	±25%	100	1.50	50
CBM02YTHN601	600	±25%	100	2.50	50

CBM03(160808) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTHN070	7	±25%	100	0.10	900
CBM03YTHN100	10	±25%	100	0.10	900
CBM03YTHN680	68	±25%	100	0.10	700
CBM03YTHN121	120	±25%	100	0.30	300
CBM03YTHN301	300	±25%	100	0.35	300
CBM03YTHN601	600	±25%	100	0.65	300
CBM03YTHN102	1000	±25%	100	1.10	50

CBM05(201209) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTHN050	5	±25%	100	0.07	500
CBM05YTHN070	7	±25%	100	0.07	500
CBM05YTHN121	120	±25%	100	0.35	300
CBM05YTHN601	600	±25%	100	0.65	200

CBM04(321611) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTHN050	5	±25%	100	0.07	500
CBM04YTHN070	7	±25%	100	0.07	500
CBM04YTHN301	300	±25%	100	0.30	300
CBM04YTHN601	600	±25%	100	0.45	300

■ We are capable to design according to customer special requirement

Multilayer Chip Beads

■ Standard Electrical Specifications(For Medium Current Line Use)

CBM02(100505) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM02YTAG100	10	±25%	100	0.03	2000
CBM02YTAG121	120	±25%	100	0.09	1200

CBM03(160808) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM03YTAG300	30	±25%	100	0.04	3000
CBM03YTAG600	60	±25%	100	0.04	3000
CBM03YTAG121	120	±25%	100	0.05	2000
CBM03YTAG221	220	±25%	100	0.08	2000
CBM03YTAG601	600	±25%	100	0.30	1000

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTAG110	11	±25%	100	0.03	3000
CBM05YTAG170	17	±25%	100	0.03	3000
CBM05YTAG310	31	±25%	100	0.03	3000
CBM05YTAG470	47	±25%	100	0.03	3000
CBM05YTAG520	52	±25%	100	0.03	3000
CBM05YTAG600	60	±25%	100	0.04	3000
CBM05YTAG800	80	±25%	100	0.04	3000
CBM05YTAG101	100	±25%	100	0.04	3000
CBM05YTAG121	120	±25%	100	0.05	3000
CBM05YTAG221	220	±25%	100	0.05	3000
CBM05YTAG301	300	±25%	100	0.05	3000
CBM05YTAG601	600	±25%	100	0.10	2000
CBM05YTAG102	1000	±25%	100	0.30	1000
CBM05YTAG152	1500	±25%	100	0.30	1000

CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAG190	19	±25%	100	0.03	3000
CBM04YTAG310	31	±25%	100	0.03	3000
CBM04YTAG520	52	±25%	100	0.03	3000
CBM04YTAG700	70	±25%	100	0.04	3000
CBM04YTAG101	100	±25%	100	0.04	3000
CBM04YTAG151	150	±25%	100	0.05	3000
CBM04YTAG221	220	±25%	100	0.05	3000
CBM04YTAG301	300	±25%	100	0.06	3000
CBM04YTAG501	500	±25%	100	0.07	2500
CBM04YTAG601	600	±25%	100	0.08	2000
CBM04YTAG102	1000	±25%	100	0.30	1000

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM10YTAG520	52	±25%	100	0.03	3000
CBM10YTAG600	60	±25%	100	0.03	3000

■ We are capable to design according to customer special requirement

■ Standard Electrical Specifications(For Medium Current Line Use)
CBM08(451616) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM08YTAG600	60	±25%	100	0.04	3000
CBM08YTAG800	80	±25%	100	0.04	3000
CBM08YTAG101	100	±25%	100	0.04	3000
CBM08YTAG181	180	±25%	100	0.04	3000
CBM08YTAG851	850	±25%	100	0.10	1500
CBM08YTAG102	1000	±25%	100	0.09	1500

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTAG121	120	±25%	100	0.04	3000
CBM12YTAG151	150	±25%	100	0.04	3000

■ Standard Electrical Specifications(For Medium Current Line Use)
CBM12(453215) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTKG601	600	±25%	100	0.04	3000
CBM12YTKG781	780	±25%	100	0.04	3000

■ We are capable to design according to customer special requirement

■ Standard Electrical Specifications(For High Current Line Use)

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTAH170	17	±25%	100	0.008	6000
CBM05YTAH300	30	±25%	100	0.008	6000
CBM05YTAH390	39	±25%	100	0.008	6000
CBM05YTAH600	60	±25%	100	0.020	6000
CBM05YTAH800	80	±25%	100	0.020	6000
CBM05YTAH121	120	±25%	100	0.020	4000

CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAH260	26	±25%	100	0.006	6000
CBM04YTAH310	31	±25%	100	0.006	6000
CBM04YTAH520	52	±25%	100	0.008	6000
CBM04YTAH800	80	±25%	100	0.020	4000
CBM04YTAH121	120	±25%	100	0.020	4000

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM10YTAH520	52	±25%	100	0.008	6000
CBM10YTAH600	60	±25%	100	0.008	6000

CBM08(451616) / A Material

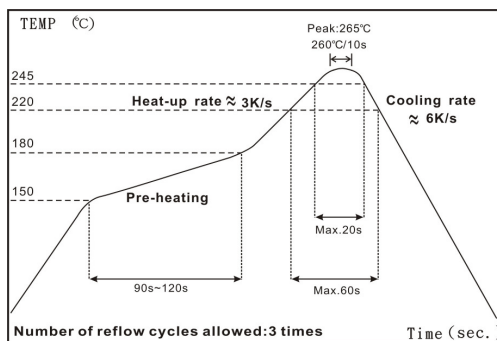
Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM08YTAH600	60	±25%	100	0.008	6000

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTAH600	60	±25%	100	0.008	6000
CBM12YTAH121	120	±25%	100	0.020	6000
CBM12YTAH151	150	±25%	100	0.020	6000

■ We are capable to design according to customer special requirement

■ Soldering Condition



IR Reflow Soldering

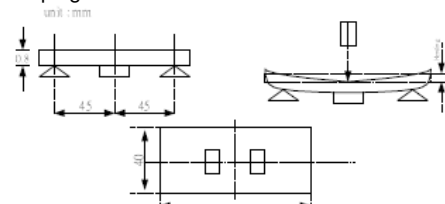
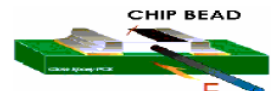
- (1) Time of IR reflow soldering at maximum temperature point 260°C : 10s
- (2) Time of soldering iron at maximum temperature point 280°C : 3s

Environmental Characteristics

Electrical Performance Test

Item	Specification	Test Methods
Impedance	Refer to standard electrical spec.	HP4286A
DCR		HP 4338 digital mili-ohm meter

Mechanical Performance Test

Item	Specification	Test Methods
Substrate Bending Test	Without deformation cases Impedance: within $\pm 30\%$ of initial value DC Resistance shall be satisfied	Test device shall be soldered on the substrate Substrate Dimension: 100x40x0.8mm Deflection: 3.0mm Keeping Time: 10sec and then return 
Vibration	Appearance: No damage Impedance: within $\pm 30\%$ of initial value DC Resistance shall be satisfied	Test device shall be soldered on the substrate Oscillation Frequency : 10 to 55 to 10Hz for 1min Amplitude : 1.5mm(peak-peak) Time : 2hrs for each axis (X,Y&Z), total 6hrs
Resistance to Soldering Heat	No visible damage Electrical characteristics and mechanical characteristics shall be satisfied	Solder temp: $265 \pm 5^\circ\text{C}$ Immersion time: $6 \pm 1\text{sec}$ Preheating: 100°C to 150°C , 1 minute Measured after exposure in the room condition for 24hrs Solder: Sn-3Ag-0.5Cu
Solderability	95% min. coverage of all metallized area	Solder Temperature: $240 \pm 5^\circ\text{C}$ Immersion Time: $3 \pm 1\text{sec}$ Solder: Sn-3Ag-0.5Cu
Terminal Strength	Without deformation cases Impedance: within $\pm 30\%$ of initial value DC Resistance shall be satisfied	Solder chip on PCB and applied 10N (1.02KgF) for 10 sec 
Temperature Cycle	Appearance: No damage Impedance: within $\pm 30\%$ of initial value DC Resistance shall be satisfied	One cycle: One cycle/step1: $-55 \pm 3^\circ\text{C}$ for $30 \pm 3\text{min}$ step2: standard atmospheric conditions 5s or less step3: $125 \pm 2^\circ\text{C}$ for $30 \pm 3\text{min}$ step4: standard atmospheric conditions 5s or less Total: 100cycles Measured after exposure in the room condition for 24hrs
Humidity Resistance		Temperature: $60 \pm 2^\circ\text{C}$ Relative Humidity: 90 ~ 95% Applied Current: Rated Current(maximum value) Time: $1008 \pm 12\text{hrs}$ Measured after exposure in the room condition for 24hrs
High Temperature Resistance		Temperature: $125 \pm 2^\circ\text{C}$ Applied Current: Rated Current(maximum value) Time: $1008 \pm 12\text{hrs}$ Measured after exposure in the room condition for 24hrs
Low Temperature Storage Life Test		Temperature: $-55 \pm 2^\circ\text{C}$ Time: $1008 \pm 12\text{hrs}$ Measured after exposure in the room condition for 24hrs
Thermal Shock		$-55^\circ\text{C} \sim 125^\circ\text{C}$ kept stabilized for 30 minutes each for 100 cycles Measured after exposure in the room condition for 24hrs

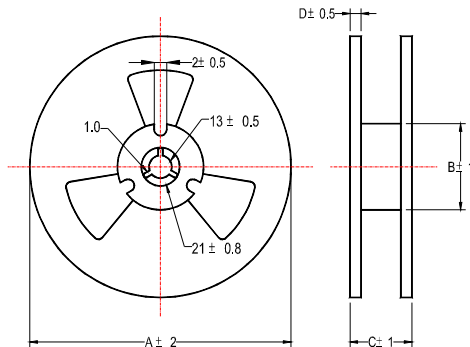
Multilayer Chip Beads

■ Operating Temperature: -55℃ ~ 125℃

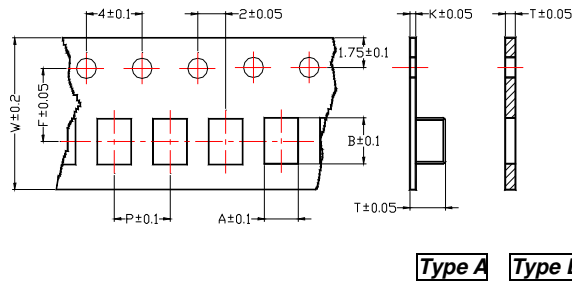
■ Storage Temperature: 25±3℃ ; Humidity < 80%RH

■ Packaging

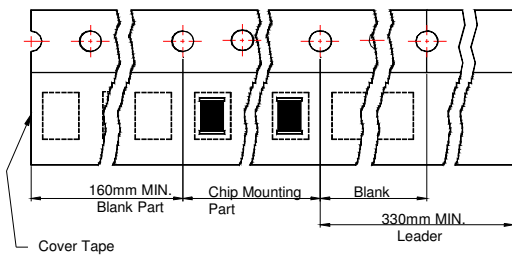
Reel Specifications



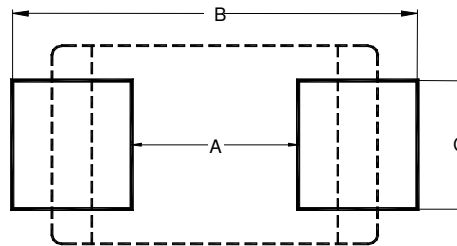
Tape Specifications



Tape Material



Recommended Pattern



Unit : mm

Type	Tape Dimensions								Reel Dimensions				Recommended Pattern			Quantity (EA)
	A	B	T	W	P	F	K	Tape Type	A	B	C	D	A	B	C	
CBM01	0.38	0.68	1.10	8.0	2.0	3.5	-	B	178	60	10	2	0.25	0.69	0.32	15000
CBM02	0.65	1.15	0.80	8.0	2.0	3.5	-	B	178	60	10	2	0.50	2.10	0.55	10000
CBM03	1.10	1.90	1.10	8.0	4.0	3.5	-	B	178	60	10	2	0.60	2.60	0.80	4000
CBM05	1.55	2.30	1.20	8.0	4.0	3.5	-	B	178	60	10	2	0.66	3.23	1.47	4000
CBM04	1.90	3.50	1.40	8.0	4.0	3.5	0.2	A	178	60	10	2	2.20	4.40	2.06	3000
CBM10	2.90	3.60	1.70	8.0	4.0	3.5	0.2	A	178	60	10	2	2.13	4.06	2.74	2000
CBM08	2.90	4.90	1.40	12	4.0	5.5	0.3	A	178	60	14	2	2.70	5.70	2.24	2000
CBM12	3.60	4.90	2.05	12	8.0	5.5	0.3	A	178	60	14	2	2.57	5.90	4.22	1000