

## Data Sheet

**Customer:**

**Product:** Multilayer Chip Beads – CBM Series

**Part No.:** CBM03YTAG181

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## Multilayer Chip Beads



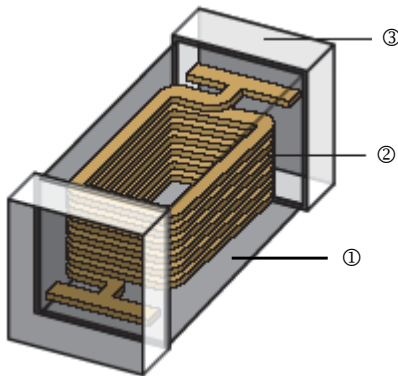
### ■ Features

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

### ■ Applications

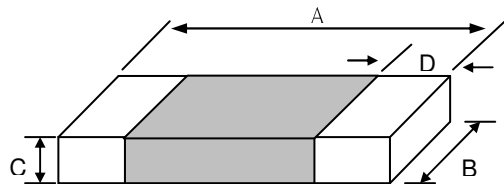
- Computers and Peripheral Equipment
- VCRS, Television, Pagers
- Cellular Phones
- Digital Communication Equipment
- Various Electronics Equipments
- Circuit Where a Stable Ground is Unavailable

### ■ 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)
CBM03	0603	1.6±0.20	0.80±0.15	0.8±0.15	0.1~0.6	6.2

**Multilayer Chip Beads**

**Part Numbering**

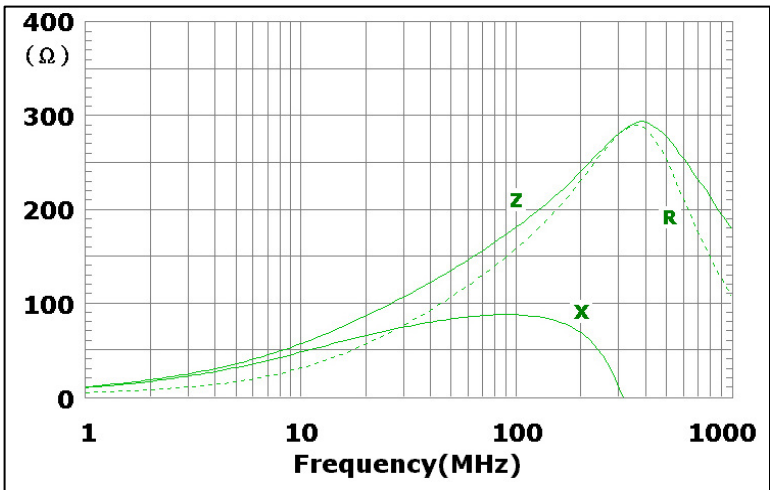
CBM	03	Y	T	A	G	181
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Material Code	Current	Impedance
	03: 0603	Y: $\pm 25\%$	T: Taping Reel	A: A material	G: Medium current	181: 180 $\Omega$

**Standard Electrical Specifications(For Medium Current Line Use)**

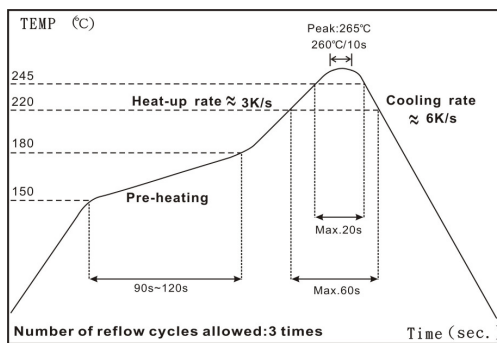
CBM03(160808) / A Material

Part No.	Impedance ( $\Omega$ )	Tolerance	Test Frequency (MHz)	DCR ( $\Omega$ ) max.	Rated current (mA) max.
CBM03YTAG181	180	$\pm 25\%$	100	0.08	2000

**Curve**



**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

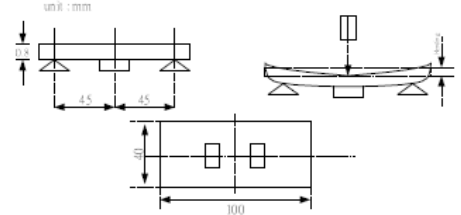

Multilayer Chip Beads

■ 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±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±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±5°C Immersion time: 6±1sec 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 metabolized area	Solder Temperature: 240±5°C Immersion Time: 3±1sec Solder: Sn-3Ag-0.5Cu
Terminal Strength	Without deformation cases Impedance: within±30% of initial value DC Resistance shall be satisfied	Solder chip on PCB and applied 10N (1.02Kgf) for 10 sec 
Temperature Cycle		One cycle: One cycle/step1: -55±3°C for 30±3min step2: standard atmospheric conditions 5s or less step3:125±2°C for 30±3min step4: standard atmospheric conditions 5s or less Total: 100cycles Measured after exposure in the room condition for 24hrs
Humidity Resistance	Appearance: No damage Impedance: within±30% of initial value DC Resistance shall be satisfied	Temperature: 60±2°C Relative Humidity: 90 ~ 95% Applied Current: Rated Current(maximum value) Time: 1008±12hrs Measured after exposure in the room condition for 24hrs
High Temperature Resistance		Temperature: 125±2°C Applied Current: Rated Current(maximum value) Time: 1008±12hrs Measured after exposure in the room condition for 24hrs
Low Temperature Storage Life Test		Temperature: -55±2°C Time: 1008±12hrs Measured after exposure in the room condition for 24hrs
Thermal Shock		-55°C~125°C kept stabilized for 30 minutes each for 100 cycles Measured after exposure in the room condition for 24hrs

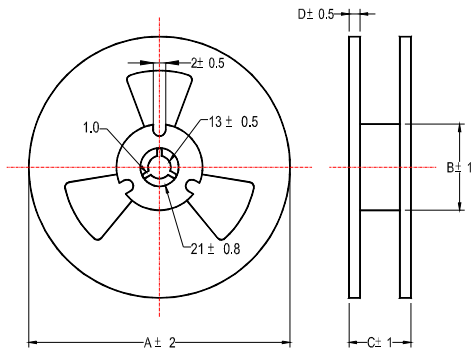
■ Operating Temperature: -55°C ~ 125°C

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

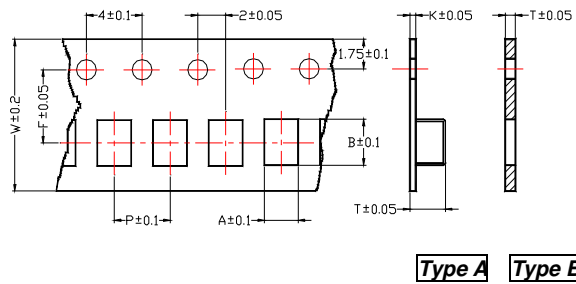
**Multilayer Chip Beads**

**■Packaging**

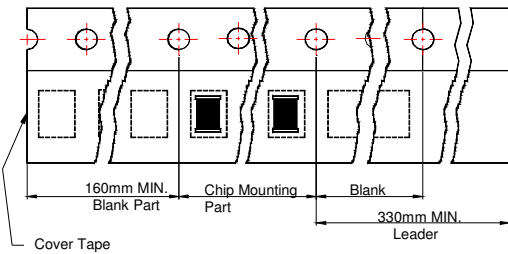
Reel Specifications



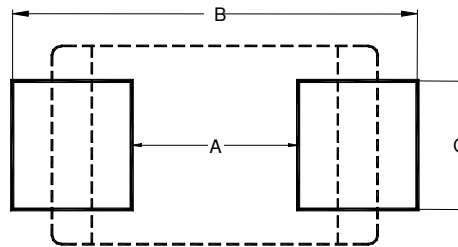
Tape Specifications



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	
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