

## **BCMA Series**

# Common Mode Filters For Automotive Signal Line Size 1009



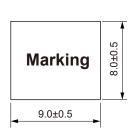
#### **FEATURES**

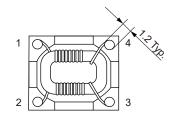
- High common mode impedance at high frequency cause excellent noise suppression performance
- Designed to be low profile and Supports large currents (up to 5 A)
- Operating temperature range: -40 to +125°C
- AEC-Q200 qualified
- Quantity: 1000pcs

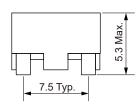
#### **APPLICATION**

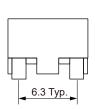
- Measures against common mode noise in power lines Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

## Dimensions: [mm]

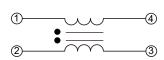




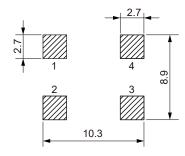




#### Schematic:



## Land Pattern: [mm]



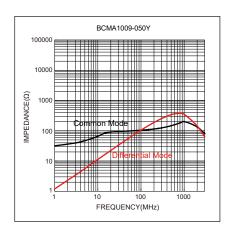


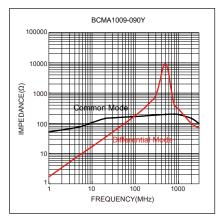
## **Electrical Properties:**

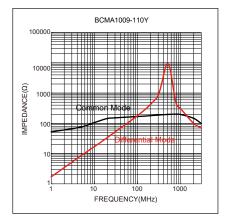
Part No	Inductance @100KHz/0.1V (μΗ)	Tolerance	Impedance Max. (Ω)	Temperature Rise Current Max. (A)	DC Resistance Max. (mΩ)	Frequency (MHz)
BCMA1009-050Y	5	±50%	500	5.00	10	108
BCMA1009-090Y	3CMA1009-090Y 9		800	3.50	11	105
BCMA1009-110Y	BCMA1009-110Y 11		1000 2.50		30	100
BCMA1009-300Y	30	±50%	2200	1.40	60	60
BCMA1009-500Y	50	±50%	3200	0.50	96	22
BCMA1009-121Y	120	±40%	600	2.50	30	40
BCMA1009-151Y	150	±40%	600	3.50	13	10
BCMA1009-221Y	220	±40%	1200	2.20	32	18
BCMA1009-251Y	250	±40%	1200	2.00	40	15
BCMA1009-471Y	470	±40%	2100	1.60	70	12
BCMA1009-102Y	1000	±40%	4200	0.95	180	6.0
BCMA1009-222Y	2200	±40%	7500	0.75	300	4.0
BCMA1009-332Y	3300	±40%	8900	0.65	360	2.0
BCMA1009-392Y	3900	±40%	9600	0.52	540	2.0
BCMA1009-472Y	4700	±40%	13000	0.35	720	1.2

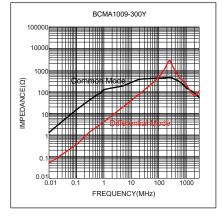
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

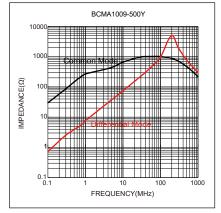
## Typical Electrical Characteristics:

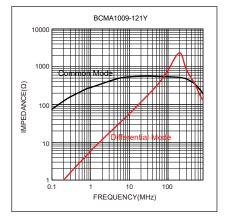




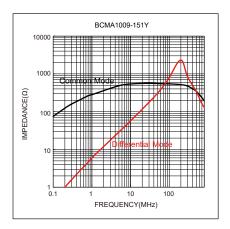


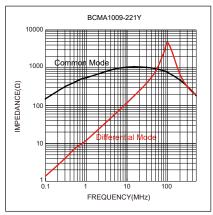


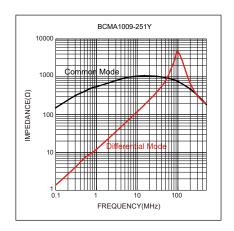


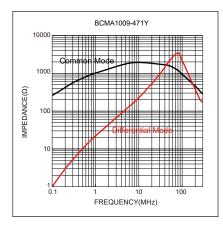


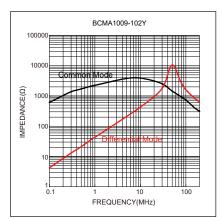


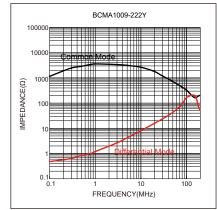


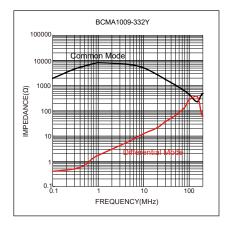


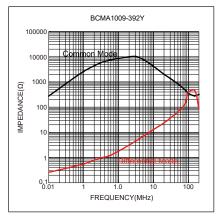


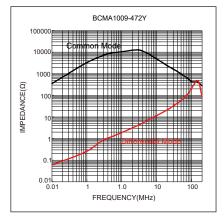




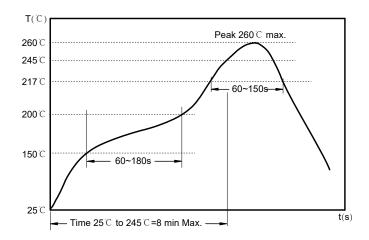








## Soldering Reflow:



Preheat condition: 150 ~200  $^{\circ}\text{C}$  / 60~180 sec.

Allowed time above 217 °C: 60~150 sec.

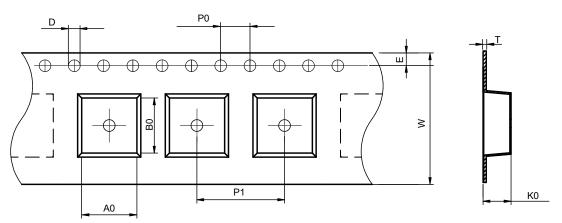
Max temperature: 260 ℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 3x max.

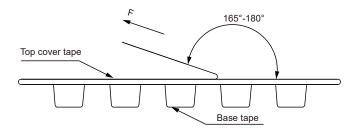
## Packaging Information:

## Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
BCMA1009	8.6±0.1	10.5±0.1	1.5±0.1	4.0±0.1	12.0±0.1	24.0±0.3	5.4±0.1	1.75±0.1	0.40±0.05

## Peel force of top cover tape:



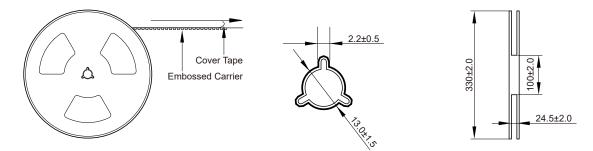
The peel force of top cover tape shall be between 0.20 to 1.17 N

## **Product Marking:**

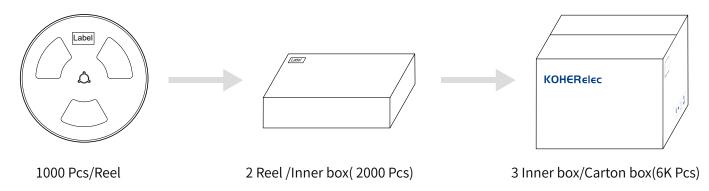
Marking	Printing (Inductance)
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#### Reel Dimension: [mm]



#### Packaging Quantity:



# Cautions and Warnings:

#### Storage Conditions:

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

#### **Operation Instructions:**

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer
  does.As a result customer shall be responsible for checking and confirming whether Koher product with the
  performance described in the product specification is suitable for using in customer's particular application or
  not.