

RoHS & Halogen Free & REACH Compliance.

## SPECIFICATION FOR APPROVAL

Customer : \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Drawing No : \_\_\_\_\_

Quantity : 1 Set. Date : 2024.05.15

Pulse Series : BPPM00485023

SPECIFICATION ACCEPTED BY:	
COMPONENT ENGINEER	
ELECTRICAL ENGINEER	
MECHANICAL ENGINEER	
APPROVED	
REJECTED	

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Drawn by <b>Rammi</b>	Checked by <b>Marco</b>	Approved by <b>Vincent</b>
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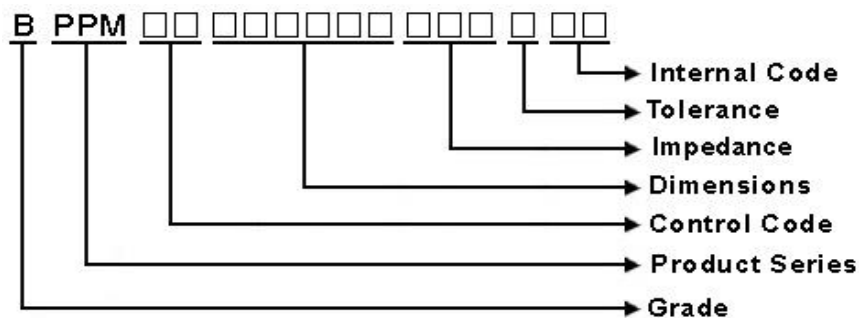
REVISIONS

REV.	Description	Date	Approved by	Checked by	Checked by	Prepared by
00	Issue	2024.05.15	Vincent	Marco	Sara	Rammi

## BPPM00485023 Series Specification

**1 Scope:** This specification applies to the Pb Free Common mode filters

**2 Part Numbering:**



**3 Rating:**

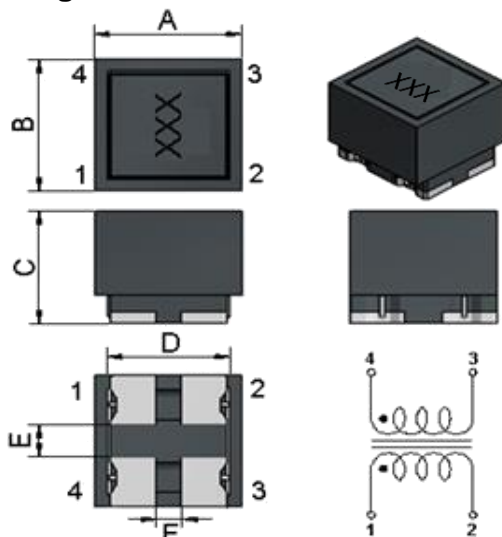
Operating Temperature: - 40°C ~ + 125°C (Including self temp. rise)

Storage Temperature: (on tape & reel): -20°C to +40°C; 75% RH max

**4 Standard Testing Condition**

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

**5 Configuration and Dimensions and Unit Weight:**



Ex Marking:102  
Marking Color: Black

A: 4.8±0.30	mm
B: 5.0±0.30	mm
C: 2.3±0.20	mm
D: 3.5±0.20	mm
E: 2.2±0.20	mm
F: 1.1±0.20	mm

Net Weight (grms)

SIZE CODE	Net Weight (grms)
485023	0.216(typ.)

## BPPM00485023 Series Specification

### 6 Electrical Characteristics:

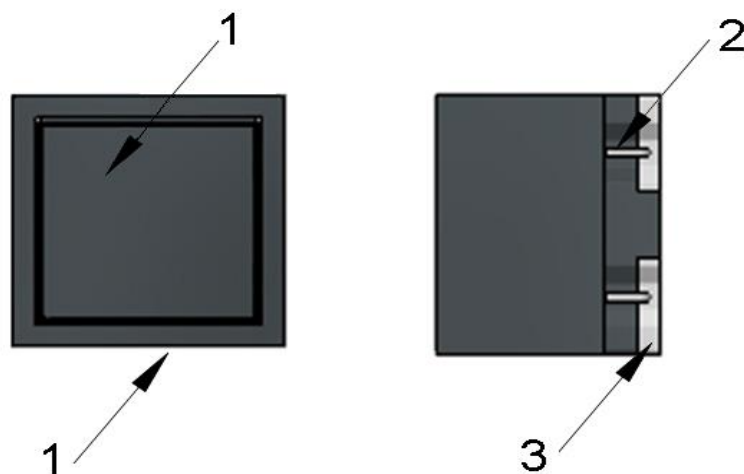
Part No.	Impedance( $\Omega$ ) Typ.	Impedance( $\Omega$ ) Typ.	RDC(m $\Omega$ )	I <sub>rms</sub>	Rated Voltage	Withstanding voltage	Insulation Resistance	Marking
	@10MHz	@100MHz	$\pm 40\%$	(A)Max.	(V)Max.	(V)Max.	(M $\Omega$ )Min.	
BPPM00485023101X00	—	100	10	6	50	125	10	101
BPPM00485023251X00	20	250	14	5	50	125	10	251
BPPM00485023501X00	30	500	19	4	50	125	10	501
BPPM00485023102X00	60	1000	24	3	50	125	10	102
BPPM00485023142X00	100	1400	40	2	50	125	10	142
BPPM00485023152X00	100	1500	40	2	50	125	10	152

#### NOTE:

1.I<sub>rms</sub> : Based on temperature rise ( $\Delta T$  : 40°C Typ.)

## BPPM00485023 Series Specification

### 7 7.1 Construction:



### 7.2 Material List:

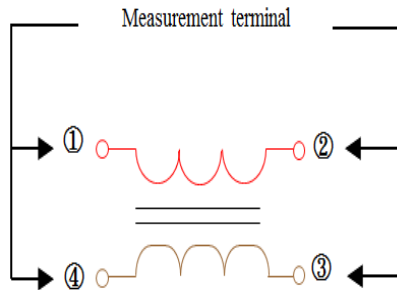
NO	Part	Material
1	Core	Ferrite
2	Wire	Magnet Wire
3	Terminal	Ag/Ni/Sn

## BPPM00485023 Series Specification

### TEST EQUIPMENT

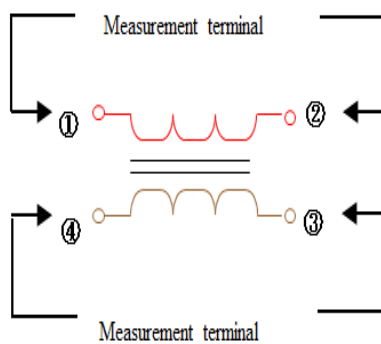
#### 1. Impedance

Measured by HP 4291B RF Impedance Analyzer.



#### 2. DC Resistance

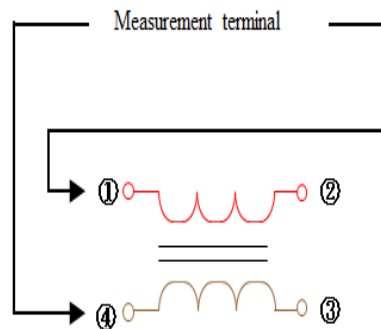
Measured by Chroma 16502 mill ohm meter



#### 3. Insulation Resistance

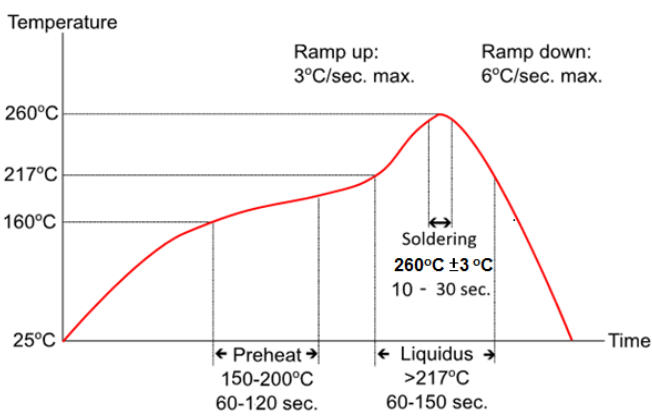

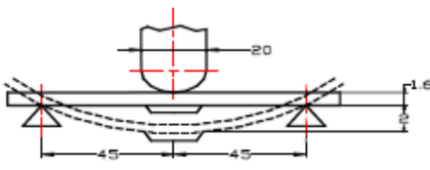
Measured by Chroma 19073

Measurement voltage: 50v, Measurement time: 3.0 sec.



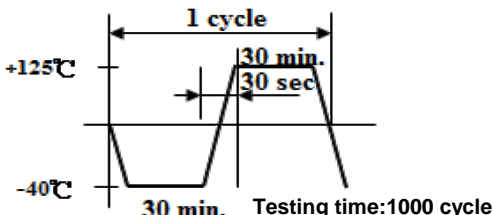
## BPPM00485023 Series Specification

### MECHANICAL

TEST ITEM	SPECIFICATIONS	TEST CONDITIONS
Solder ability	The product shall be connected to the test circuit board by the fillet (the height is 0.2mm).	Apply cream solder to the printed circuit board . Refer to clause 8 for Reflow profile.
Resistance to Soldering heat (reflow soldering)	There shall be no damage or problems.	<p>Temperature profile of reflow soldering</p>  <p>Note:</p> <ol style="list-style-type: none"> <li>1. Re-Flow Possible times: within 2 times</li> <li>2. Nitrogen adopted is recommended while in re-flow</li> </ol>
Terminal strength	The terminal electrode and the ferrite must not be damaged.	<p>Solder a chip to test substrate , and then laterally apply a load 9.8N in the arrow direction.</p> 
Strength on PC board bending	The terminal electrode and the ferrite must not be damaged.	<p>Test device shall be soldered on the substrate</p> <p>Substrate Dimension: 100x40x1.6mm</p> <p>Deflection: 2.0mm</p> <p>Keeping Time: 60 sec</p> 
High temperature resistance	<p>Impedance: Within <math>\pm 20\%</math> of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	<p>After the samples shall be soldered onto the test circuit board, the test shall be done.</p> <p>Measurement : After placing for 24 hours min.</p> <p>Temperature : <math>+125 \pm 2^\circ\text{C}</math></p> <p>Applied voltage : Rated voltage</p> <p>Applied current : Rated current</p> <p>Testing time : <math>500 \pm 12</math> hours</p>

## BPPM00485023 Series Specification

### ENVIRONMENT CHARACTERISTICS

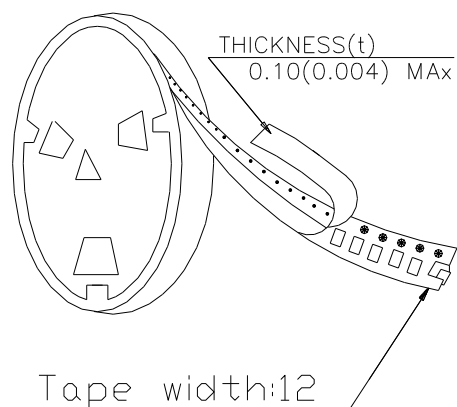
TEST ITEM	SPECIFICATIONS	TEST CONDITIONS
Humidity resistance	<p>Impedance: Within <math>\pm 20\%</math> of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	<p>After the samples shall be soldered onto the test circuit board, the test shall be done.</p> <p>Measurement : After placing for 24 hours min.</p> <p>Temperature : <math>+85 \pm 2^\circ\text{C}</math> , Humidity : 85 %RH</p> <p>Applied voltage : Rated voltage</p> <p>Applied current : Rated current</p> <p>Testing time : <math>500 \pm 12</math> hours</p>
Thermal shock	<p>Impedance: Within <math>\pm 20\%</math> of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	 <p>Testing time: 1000 cycle</p>
Low temperature storage	<p>Impedance: Within <math>\pm 20\%</math> of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	<p>After the samples shall be soldered onto the test circuit board, the test shall be done.</p> <p>Measurement : After placing for 24 hours min.</p> <p>Temperature : <math>-40 \pm 2^\circ\text{C}</math></p> <p>Testing time : <math>500 \pm 12</math> hours</p>
Vibration	<p>Impedance: Within <math>\pm 20\%</math> of the initial value.</p> <p>Insulation resistance and DC resistance on the specification (refer to clause 2-1) shall be met.</p> <p>The terminal electrode and the ferrite must not be damaged.</p>	<p>After the samples shall be soldered onto the test circuit board, the test shall be done.</p> <p>Frequency : 10 to 55 Hz</p> <p>Amplitude : 1.52 mm</p> <p>Dimension and times : X , Y and Z directions for 2 hours each.</p>
Solderability	<p>The electrodes shall be at least 90% covered with new solder coating.</p>	<p>Flux (rosin, isopropyl alcohol {JIS-K-1522}) shall be coated over the whole of the sample before hand, the sample shall then be preheated for about 2 minutes in a temperature of <math>130 \sim 150^\circ\text{C}</math> and after it has been immersed to a depth 0.5mm below for <math>3 \pm 0.2</math> seconds fully in molten solder M705 with a temperature of <math>245 \pm 5^\circ\text{C}</math>.</p> <p>More than 90% of the electrode sections shall be covered with new solder smoothly when the sample is taken out of the solder bath.</p>



## BPPM00485023 Series Specification

### 8 Packaging:

#### 8.1 Packaging -Cover Tape

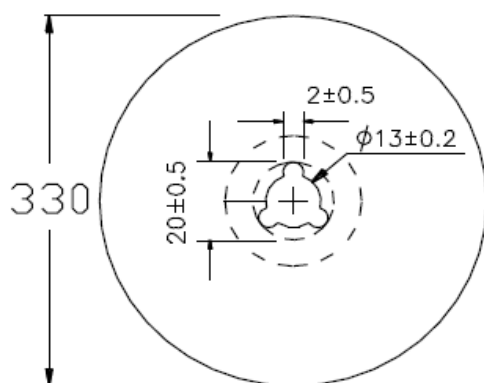


#### 8.2 Packaging Quantity

TYPE	PCS/REEL
485023	2500

#### 8.3 Reel Dimensions

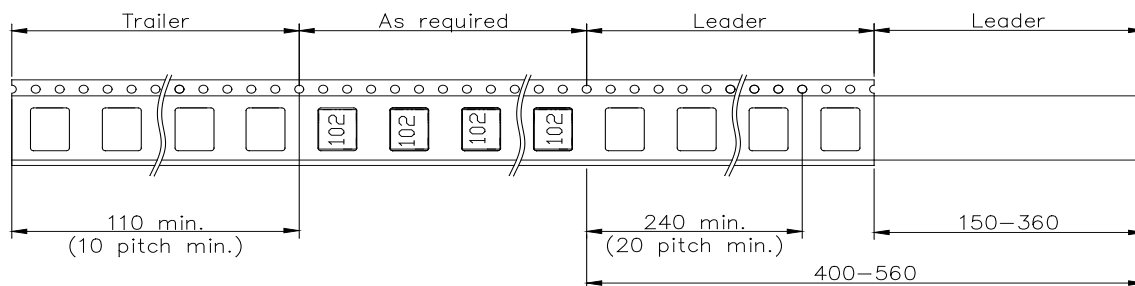
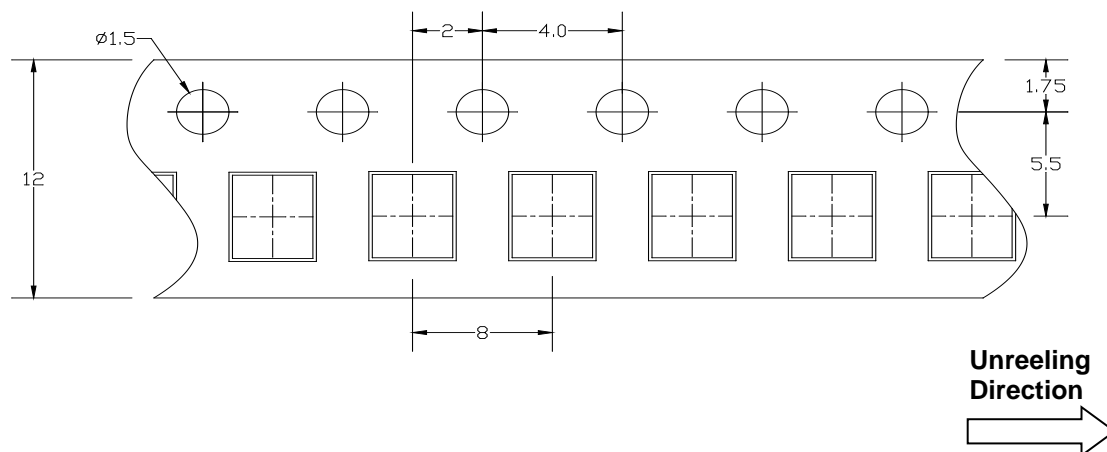
Unit : mm



## BPPM00485023 Series Specification

### 8 Packaging:

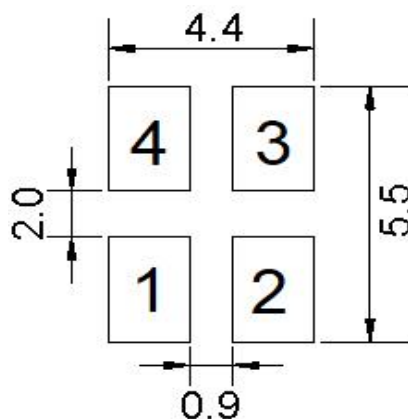
#### 8.4 Tape Dimensions in mm



Marking non-directional printing

### 9 Recommended Land Pattern:

(STANDARD PATTERN) Unit : mm



## BPPM00485023 Series Specification

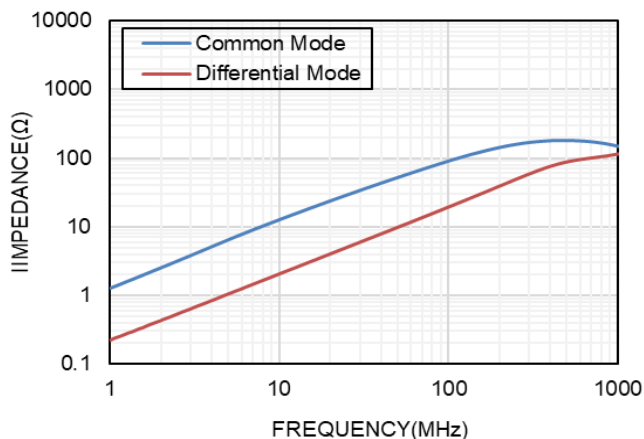
### **10** Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock or drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

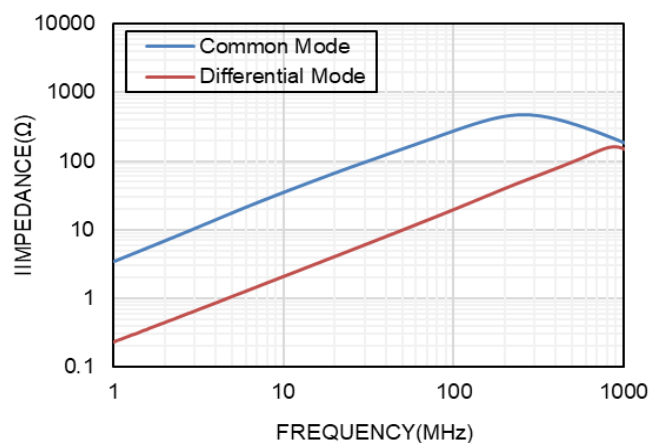
## BPPM00485023 Series Specification

Graph:

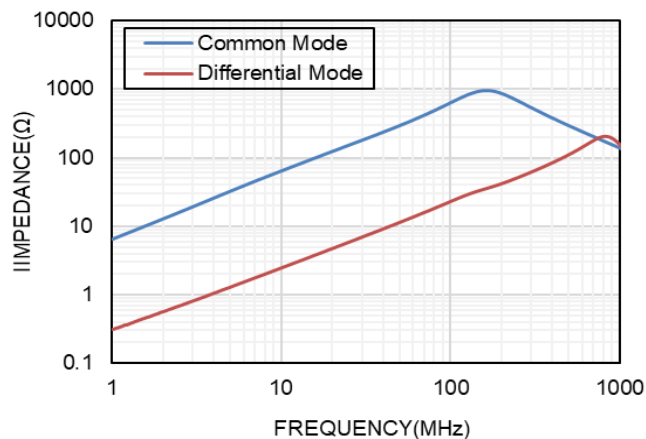
**BPPM00485023101X00**



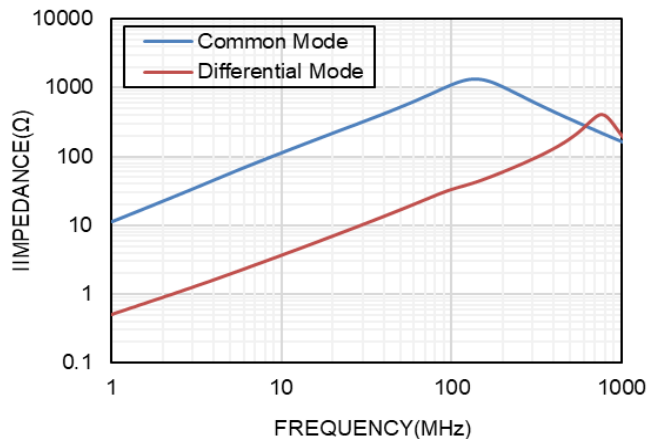
**BPPM00485023251X00**



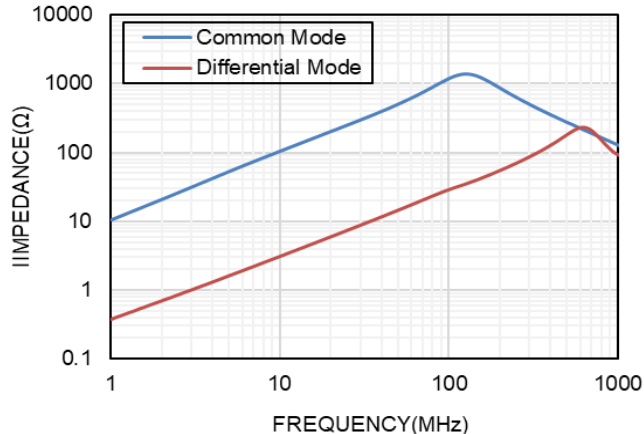
**BPPM00485023501X00**



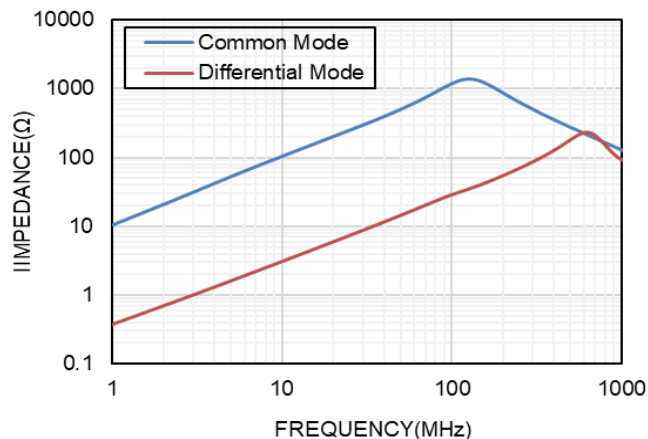
**BPPM00485023102X00**



**BPPM00485023142X00**



**BPPM00485023152X00**



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pulse:

[BWQV00322520560J00](#) [BWQV003225206R8J00](#) [BWQV00453226100J00](#) [BWQV00453226120J00](#)  
[BWQV003225208R2J00](#) [BWQV003225205R6J00](#)