

# PLT5BPH5013R1SN#

“#” at the end indicates the package specification code.



## < List of part numbers with package codes >

PLT5BPH5013R1SNB      PLT5BPH5013R1SNL

## Applications

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unsuitable Applications  | Please be sure to read and comply with these "Precautions for use."                                                                                                                                                                                                                                                                                                                                                                                                              |
| Specific Applications    | Automotive powertrain/safety equipment, Automotive infotainment/comfort equipment, Consumer equipment, Medical equipment [GHTF A/B/C] except for implant & surgery & auto injector, Industrial Equipment<br>Please refer to Our Website and specifications, etc. for information about the performance, functions, quality, management, and safety required for the above applications, and use Products after confirming the performance and reliability of the actual Product. |
| Recommended Applications | Automotive powertrain/safety equipment                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Packaging Information

| Packaging | Specifications      | Standard Packing Quantity |
|-----------|---------------------|---------------------------|
| B         | Bulk(Bag)           | 50                        |
| L         | 180mm Embossed Tape | 300                       |

## Features

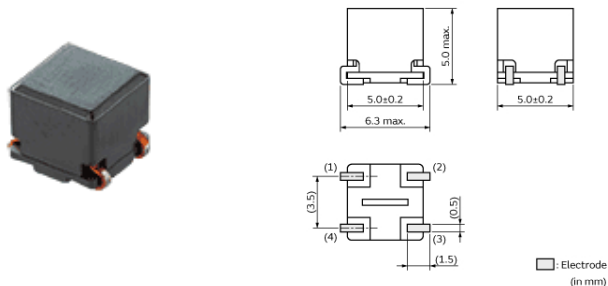
### Features

1. It can be used under the -55 °C ~ +150 °C usage environment.
2. Meets large current up to 5.6A max. suitable for power lines.
3. Meets to surface mounting.
4. Large common mode impedance up to 500ohm (at 10mhz) enables good noise suppression effect.

### Application

Common mode noise suppression in automotive equipments, audio amps for automotive, car navigations, and other general power lines.

## Appearance & Shape



### Attention

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2. This datasheet has only typical specifications because there is no space for detailed specifications.

Therefore, please review our product specifications or consult the approval sheet for product specifications before ordering.

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## Specifications

|       |        |
|-------|--------|
| Brand | Murata |
|-------|--------|

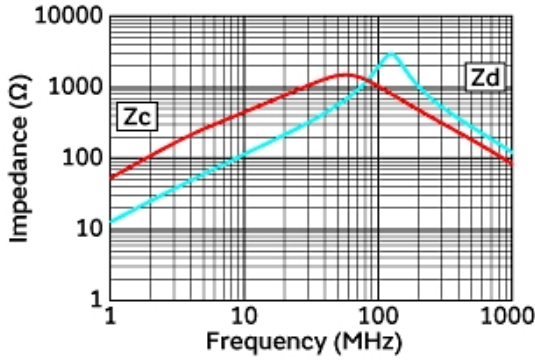
|                                                                |                                                                      |
|----------------------------------------------------------------|----------------------------------------------------------------------|
| Shape                                                          | SMD                                                                  |
| Size Code (in mm)                                              | 5050                                                                 |
| Size Code (in inch)                                            | 2020                                                                 |
| Length                                                         | 5.0mm                                                                |
| Length Tolerance                                               | ±0.2mm                                                               |
| Width                                                          | 5.0mm                                                                |
| Width Tolerance                                                | ±0.2mm                                                               |
| Thickness                                                      | 5.0mm                                                                |
| Thickness Tolerance                                            | max.                                                                 |
| Common Mode Impedance (at 10MHz)                               | 500Ω                                                                 |
| Common Mode Impedance (at 10MHz) Tolerance                     | (Typ.)                                                               |
| Rated Current                                                  | 3.1A                                                                 |
| Derating of Rated Current                                      | Yes (Over 125°C)<br>*For details, please check the derating diagram. |
| Rated Voltage                                                  | 80Vdc                                                                |
| Withstanding Voltage                                           | 200Vdc                                                               |
| DC Resistance(max.)                                            | 22.1mΩ                                                               |
| DC Resistance                                                  | 17mΩ±30%                                                             |
| Insulation Resistance(min.)                                    | 10MΩ                                                                 |
| Operating Temperature Range                                    | -55°C to 150°C                                                       |
| Mass(typ.)                                                     | 0.48g                                                                |
| Number of Circuit                                              | 1                                                                    |
| Operating Temperature Range(Self-temperature rise is included) | No                                                                   |

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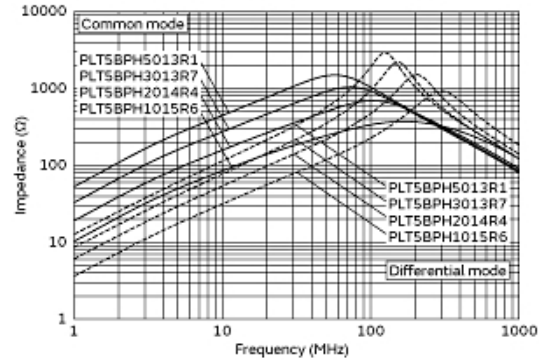
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## Product Data



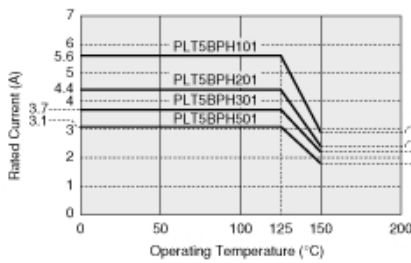
Impedance-Frequency Characteristics



Impedance-Frequency Characteristics (Main Items)

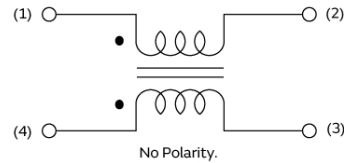
In operating temperature exceeding +125°C, derating of current is necessary for PLT5BP series. Please apply the derating curve shown in chart according to the operating temperature.

Derating of Rated Current

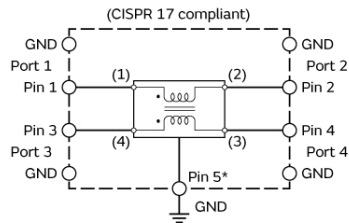


Derating of Rated Current

### Equivalent Circuit (Note 1)



Note1: The Port/Pin No. of the Simulation Model provided by our company is as follows.



S-parameter: Port ☐  
SPICE model: Pin ☐ (Pin5\* connect to GND)

Equivalent Circuit

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