

# DLP31SN551ML2#

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



< List of part numbers with package codes >  
DLP31SN551ML2B                      DLP31SN551ML2L

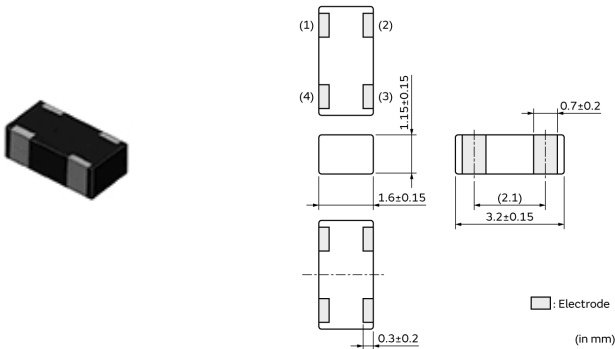
## Applications

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unsuitable Applications  | Please be sure to read and comply with these "Precautions for use."                                                                                                                                                                                                                                                                                                                                                                                   |
| Specific Applications    | Consumer equipment, Medical equipment [GHTF A/B/C] except for implant & surgery & auto injector, Industrial equipment except for transportation & facility & energy 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 | Consumer equipment                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Packaging Information

| Packaging | Specifications      | Standard Packing Quantity |
|-----------|---------------------|---------------------------|
| B         | Bulk(Bag)           | 500                       |
| L         | 180mm Embossed Tape | 3000                      |

## 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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## Features

DLP31S series is chip common mode choke coil that realizes high impedance in a small size with ferrite material technology and film processing technology. DLP31S series has excellent performance at high frequency range. It is suitable for differential signal line application.

### Features

1. Small size, low profile, SMD. 3.2x1.6x1.15mm (Tolerance: +/-0.15mm)
2. High common mode impedance (550 ohm at 100MHz typ.) in small size
3. DLP31S suppresses high frequency noise that was unable to be suppressed with existing common mode choke coils. Suitable for differential signal lines like USB, because DLP31S does not provide distortion to high speed signal transmission due to its high coupling (coupling coefficient: 0.98 min.)

### Applications

1. USB lines of PCs, peripheral equipment
2. LVDS lines of Note-PCs, LCDs
3. USB lines of digital A/V equipment such as digital cameras

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## Specifications

|                                                                |               |
|----------------------------------------------------------------|---------------|
| Shape                                                          | SMD           |
| Size Code (in mm)                                              | 3216          |
| Size Code (in inch)                                            | 1206          |
| Length                                                         | 3.2mm         |
| Length Tolerance                                               | ±0.15mm       |
| Width                                                          | 1.6mm         |
| Width Tolerance                                                | ±0.15mm       |
| Thickness                                                      | 1.15mm        |
| Thickness Tolerance                                            | ±0.15mm       |
| Common Mode Impedance (at 100MHz)                              | 550Ω          |
| Common Mode Impedance (at 100MHz) Tolerance                    | ±20%          |
| Rated Current                                                  | 100mA         |
| Derating of Rated Current                                      | No            |
| Rated Voltage                                                  | 16Vdc         |
| Withstanding Voltage                                           | 40Vdc         |
| DC Resistance(max.)                                            | 3.6Ω          |
| DC Resistance                                                  | 3.6Ω max.     |
| Insulation Resistance(min.)                                    | 100MΩ         |
| Operating Temperature Range                                    | -40°C to 85°C |
| Mass(typ.)                                                     | 0.03g         |
| Number of Circuit                                              | 1             |
| Operating Temperature Range(Self-temperature rise is included) | No            |
| Brand                                                          | Murata        |

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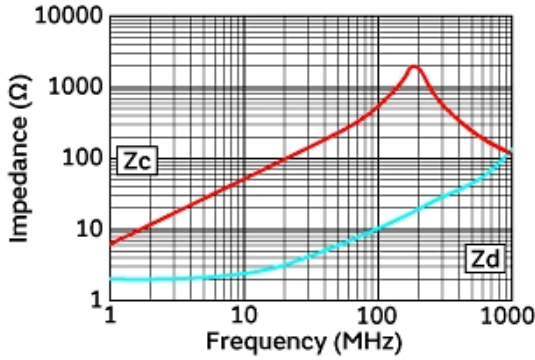
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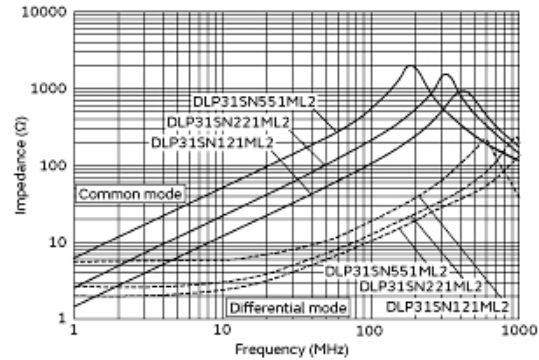
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## Product Data

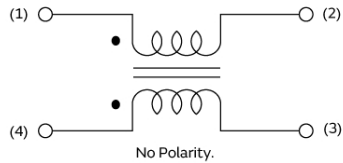


Impedance-Frequency Characteristics

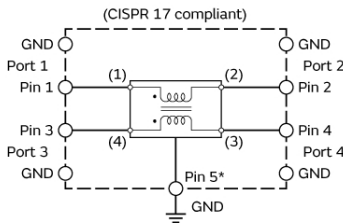


Impedance-Frequency Characteristics  
(Main Items)

### 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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