

# DLW5BTH251TQ2#

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



| < List of part numbers with package codes > |                |                |
|---------------------------------------------|----------------|----------------|
| DLW5BTH251TQ2B                              | DLW5BTH251TQ2K | DLW5BTH251TQ2L |

## 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, Medical equipment [GHTF A/B/C] except for implant & surgery & auto injector<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                                                                                                                                                                                                                                                                                                                                                                                                 |

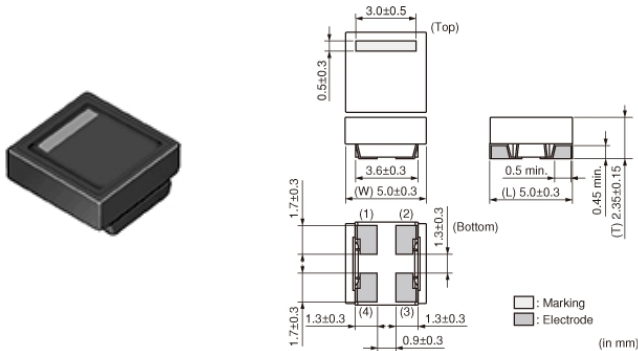
## Packaging Information

| Packaging | Specifications      | Standard Packing Quantity |
|-----------|---------------------|---------------------------|
| B         | Bulk(Bag)           | 100                       |
| K         | 330mm Embossed Tape | 2500                      |
| L         | 180mm Embossed Tape | 700                       |

## Features

- Features
1. Low profile (h=2.5mm)
  2. Small size (5.0x5.0mm) and high rated current (1.5 to 4A)
  3. High common mode Impedance (max. 1400 ohm, at 100MHz)
  4. Operating Temperature Range: -40°C to +125°C

## 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

|                                             |                                                                      |
|---------------------------------------------|----------------------------------------------------------------------|
| Shape                                       | SMD                                                                  |
| Size Code (in mm)                           | 5050                                                                 |
| Size Code (in inch)                         | 2020                                                                 |
| Length                                      | 5.0mm                                                                |
| Length Tolerance                            | ±0.3mm                                                               |
| Width                                       | 5.0mm                                                                |
| Width Tolerance                             | ±0.3mm                                                               |
| Thickness                                   | 2.35mm                                                               |
| Thickness Tolerance                         | ±0.15mm                                                              |
| Common Mode Impedance (at 100MHz)           | 250Ω                                                                 |
| Common Mode Impedance (at 100MHz) Tolerance | (Typ.)                                                               |
| Common Mode Impedance (at 10MHz)            | 20Ω                                                                  |
| Common Mode Impedance (at 10MHz) Tolerance  | min.                                                                 |
| Rated Current                               | 3A                                                                   |
| Derating of Rated Current                   | Yes (Over 105°C)<br>*For details, please check the derating diagram. |
| Rated Voltage                               | 50Vdc                                                                |
| Withstanding Voltage                        | 125Vdc                                                               |
| DC Resistance(max.)                         | 0.02Ω                                                                |
| DC Resistance                               | 0.020Ω max.                                                          |
| Insulation Resistance(min.)                 | 10MΩ                                                                 |
| Operating Temperature Range                 | -40°C to 125°C                                                       |
| Mass(typ.)                                  | 0.21g                                                                |

|                                                                |        |
|----------------------------------------------------------------|--------|
| Number of Circuit                                              | 1      |
| Operating Temperature Range(Self-temperature rise is included) | No     |
| Brand                                                          | Murata |

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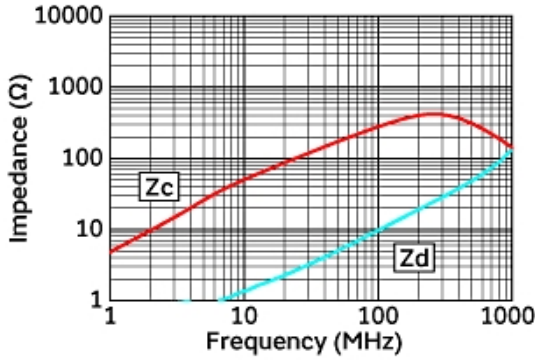
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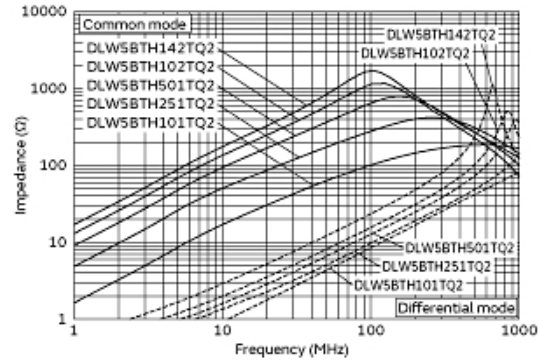
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## Product Data



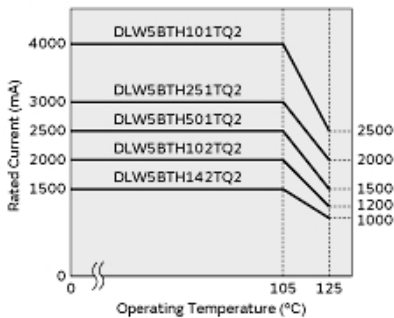
Impedance-Frequency Characteristics



Impedance-Frequency Characteristics  
(Main Items)

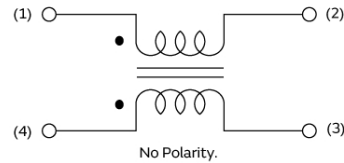
In operating temperature exceeding +105°C, derating of current is necessary for DLW5BTH\_TQ2 series.  
Please apply the derating curve shown in chart according to the operating temperature.

Derating of Rated Current

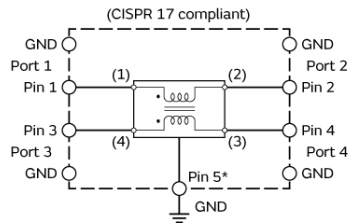


Derating of Rated Current

### 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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