

# Wire Wound Chip Common Mode Choke Coil – SDCW-H Series

Operating Temp. : -40°C~+85°C



## FEATURES

- Winding type realizes small size and low profile
- Suppress noise for the high-speed differential signal lines
- Excellent solder ability

## APPLICATIONS

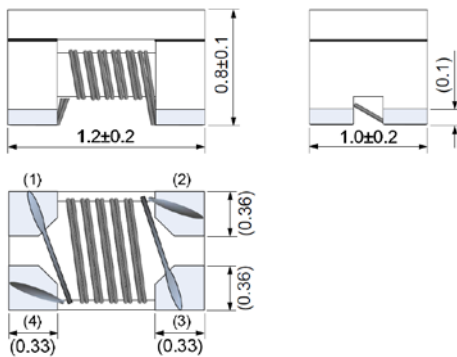
- High speed differential signal lines for HDMI, DVI, etc

## PRODUCT IDENTIFICATION

| <u>SDCW</u><br>①  | <u>2012</u><br>②                               | <u>H</u><br>③ | <u>-2</u><br>④ | <u>-900</u><br>⑤                          | <u>T</u><br>⑥  | <u>F</u><br>⑦                  |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
|---|--|---------------|----------------|---|--|--------------------------------|--|-------------|---------|-------------|---------|---|------|--|---|--|---|-----------------|--|---|--|---|-----------|--|---------|---------------|-----|-----|---|---------|--|---|-------------|---|--------------------------------------|--|---|--|
| <table border="1"> <tr><td colspan="2">Type</td></tr> <tr><td>SDCW</td><td>Winding Type<br/>Common Mode Choke<br/>Coil</td></tr> </table> | Type   |               | SDCW           | Winding Type<br>Common Mode Choke<br>Coil | <table border="1"> <tr><td colspan="2">External Dimensions (LxW) (mm)</td></tr> <tr><td>1210 [0504]</td><td>1.2x1.0</td></tr> <tr><td>2012 [0805]</td><td>2.0x1.2</td></tr> </table> | External Dimensions (LxW) (mm) |  | 1210 [0504] | 1.2x1.0 | 2012 [0805] | 2.0x1.2 | <table border="1"> <tr><td colspan="2">Code</td></tr> <tr><td>H</td><td>For High-speed<br/>Differential Signal<br/>Lines</td></tr> </table> | Code |  | H | For High-speed<br>Differential Signal<br>Lines | <table border="1"> <tr><td colspan="2">Number of Lines</td></tr> <tr><td colspan="2">2</td></tr> </table> | Number of Lines |  | 2 |  | <table border="1"> <tr><td colspan="2">Impedance</td></tr> <tr><td>Example</td><td>Nominal Value</td></tr> <tr><td>900</td><td>90Ω</td></tr> </table> | Impedance |  | Example | Nominal Value | 900 | 90Ω | <table border="1"> <tr><td colspan="2">Packing</td></tr> <tr><td>T</td><td>Tape &amp; Reel</td></tr> </table> | Packing |  | T | Tape & Reel | <table border="1"> <tr><td colspan="2">Hazardous Substance<br/>Free Products</td></tr> <tr><td colspan="2">F</td></tr> </table> | Hazardous Substance<br>Free Products |  | F |  |
| Type  |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| SDCW  | Winding Type<br>Common Mode Choke<br>Coil      |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| External Dimensions (LxW) (mm)  |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| 1210 [0504]   | 1.2x1.0  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| 2012 [0805]   | 2.0x1.2  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Code  |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| H   | For High-speed<br>Differential Signal<br>Lines |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Number of Lines   |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| 2   |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Impedance   |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Example   | Nominal Value                                  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| 900   | 90Ω  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Packing   |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| T   | Tape & Reel                                    |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| Hazardous Substance<br>Free Products  |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |
| F   |  |               |                |   |  |                                |  |             |         |             |         |   |      |  |   |  |   |                 |  |   |  |   |           |  |         |               |     |     |   |         |  |   |             |   |                                      |  |   |  |

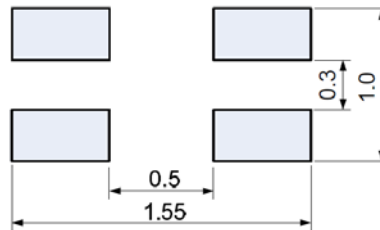
## SHAPE AND DIMENSIONS

### SDCW1210H TYPE

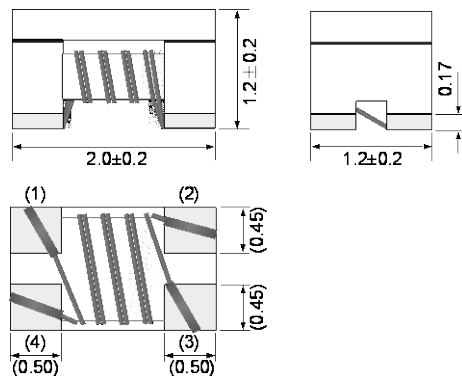


### Recommended Land Pattern

Unit: mm

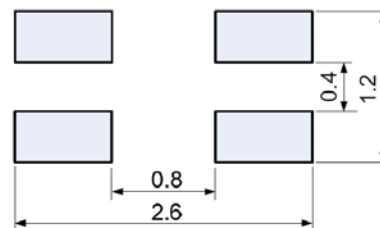


### SDCW2012H TYPE



### Recommended Land Pattern

Unit: mm



## SPECIFICATIONS

### SDCW1210H TYPE

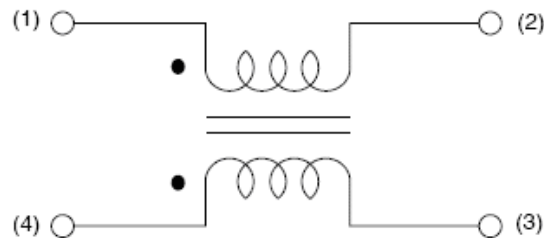
| Part Number       | Common Mode Impedance @100MHz | Max. DC Resistance | Max. Rated Current | Rated Voltage   | Min. Insulation Resistance |
|-------------------|-------------------------------|--------------------|--------------------|-----------------|----------------------------|
| Units             | $\Omega$                      | $\Omega$           | mA                 | Volts           | M $\Omega$                 |
| Symbol            | Z                             | DCR                | I <sub>r</sub>     | V <sub>DC</sub> | IR                         |
| SDCW1210H-2-350TF | 35±25%                        | 0.32               | 320                | 20              | 10                         |
| SDCW1210H-2-900TF | 90±25%                        | 0.50               | 280                | 20              | 10                         |

### SDCW2012H TYPE

| Part Number       | Common Mode Impedance @100MHz | Max. DC Resistance | Max. Rated Current | Rated Voltage   | Min. Insulation Resistance |
|-------------------|-------------------------------|--------------------|--------------------|-----------------|----------------------------|
| Units             | $\Omega$                      | $\Omega$           | mA                 | Volts           | M $\Omega$                 |
| Symbol            | Z                             | DCR                | I <sub>r</sub>     | V <sub>DC</sub> | IR                         |
| SDCW2012H-2-670TF | 67±25%                        | 0.30               | 320                | 20              | 10                         |
| SDCW2012H-2-900TF | 90±25%                        | 0.40               | 280                | 20              | 10                         |
| SDCW2012H-2-121TF | 120±25%                       | 0.40               | 280                | 20              | 10                         |

※: Products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

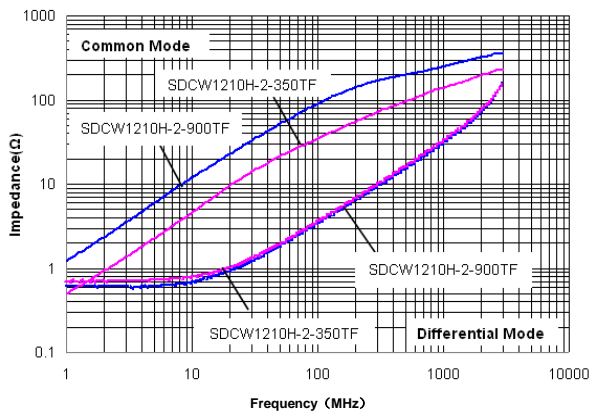
## EQUIVALENT CIRCUIT



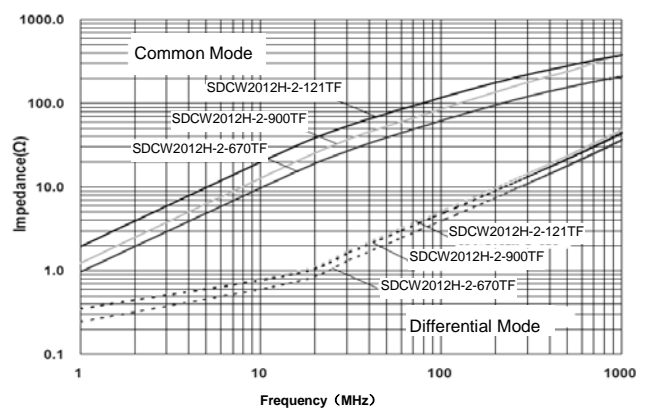
## TYPICAL ELECTRICAL CHARACTERISTICS

### Impedance vs. Frequency

#### SDCW1210H TYPE



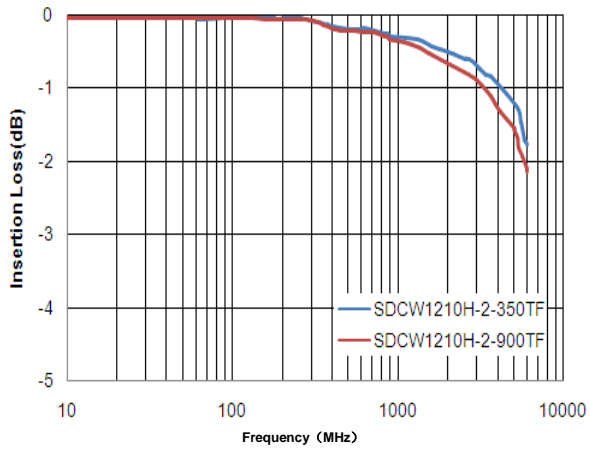
#### SDCW2012H TYPE



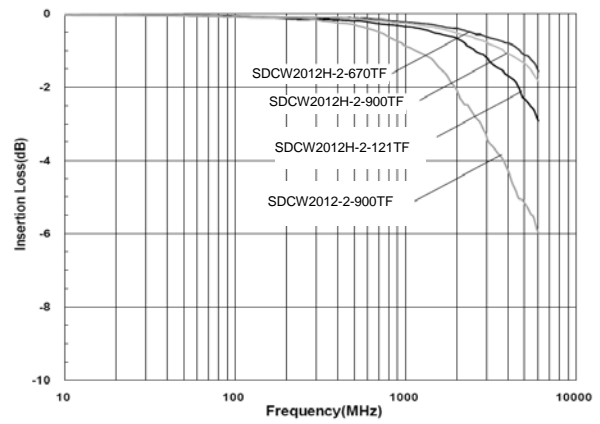
# TYPICAL ELECTRICAL CHARACTERISTICS

## Insertion Loss

### SDCW1210H TYPE



### SDCW2012H TYPE



## Differential Mode Impedance Characteristics

### SDCW2012H-2-900TF

