



### Specifications:

|                          |                   |
|--------------------------|-------------------|
| Inductance               | : 10 $\mu$ H      |
| Inductance Tolerance     | : $\pm$ 20%       |
| DC Resistance Max        | : 0.13 $\Omega$   |
| DC Current Rating        | : 1.3A            |
| Self Resonant Frequency  | : 30MHz           |
| Inductor Case Style      | : SMD             |
| No. of Pins              | : 2               |
| Lead Spacing             | : 2mm             |
| Core Material            | : Ferrite         |
| External Depth           | : 4.8mm           |
| External Length / Height | : 3mm             |
| External Width           | : 5mm             |
| Series                   | : SDC503          |
| Operating temperature    | : -55°C to +130°C |

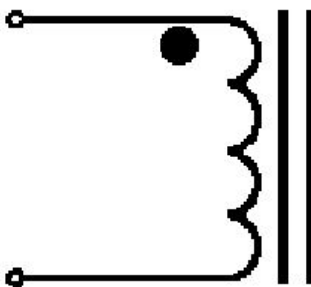
### Electrical Characteristics

|           |                     |                      |
|-----------|---------------------|----------------------|
| 100Khz 1V | Inductance (L)      | 10 $\mu$ H $\pm$ 20% |
| at 25°C   | DC Resistance (DCR) | 130m $\Omega$ (max.) |

### Material List

| No | Item                  | Material Description                           |
|----|-----------------------|--|
| 1  | Core                  | R5A CDR5 $\times$ 3(ST) B2 F1.5                |
| 2  | Wire                  | $\varnothing$ 0.23mm $\times$ 1P 2UEF1/U 155°C |
| 3  | Solder<br>(Lead Free) | Sn99.3%/Cu0.7%                                 |

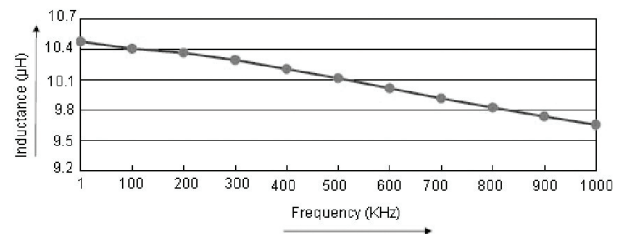
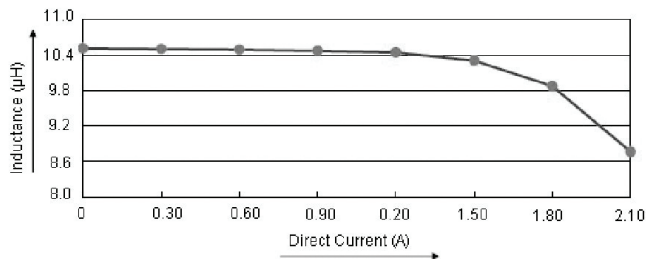
### Schematic Diagram



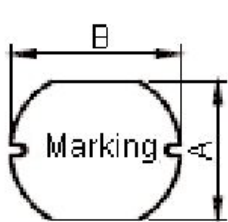
#### Note:

- (1) Wire  $\varnothing$ 0.23mm  $\times$  1P 2UEF1/U 155°C
- (2) 20.5TS(REF)

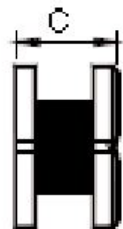
## Electric Characteristics:



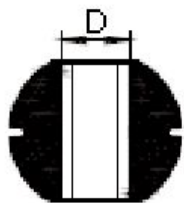
## Configurations and Dimensions



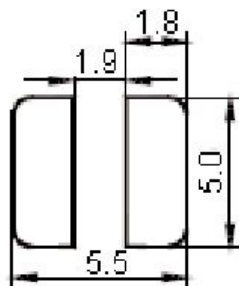
Top View



Side View



Bottom View



Suggest PCB Layout

|   |             |           |
|---|-------------|-----------|
| A | 4.8 ± 0.5mm | -         |
| B | 5 ± 0.3mm   | -         |
| C | 3 ± 0.3mm   | -         |
| D | 2mm         | Reference |

Dimensions : Millimetres

## Part Number Table

| Description              | Part Number     |
|--------------------------|-----------------|
| Inductor, 10UH, 20%, SMD | MCSDC0503-100MU |

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