## Storage Choke, open version, without socket



#### Description

- Storage choke
- Wire leads
- Reduced magnetic reversal
- Constant inductance at high alternating field modulation and large DC magnetization
- Open version without socket and chassis

## Approvals and Compliances

#### Applications

See below:

- Storage of energy in switched power supplies
- Switch-mode
- Chopper amplifiers
- DC drives and stepper motor controls

## References

#### Weblinks

pdf data sheet, html datasheet, General Product Information, Approvals, Distributor-Stock-Check, Detailed request for product, SPICE Library

#### **Technical Data**

|                           | to 600 VDC             | Isolation Voltage         | 2kV eff., winding to ambient  |
|---------------------------|------------------------|---------------------------|-------------------------------|
| Rated Current             | 0.5 - 16A @ Ta 70 °C   | Climatic Category         | 40/125/21 acc. to IEC 60068-1 |
| Rated inductance          | 0.01 - 1 mH, Tol. ±15% | Allowable Operation Temp. | -40 °C to 125 °C              |
| Power Operating Frequency | up to 1 MHz            |                           |                               |
| Terminal Type             | Wire leads             |                           |                               |
| Weight                    | 4 - 104 g              |                           |                               |

#### **Approvals and Compliances**

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

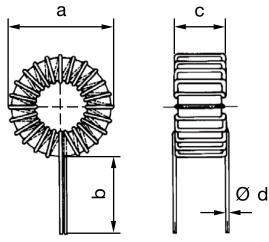
SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

## **Application standards**

Application standards where the product can be used

| Organization     | Design                           | Standard       | Description   |
|------------------|----------------------------------|----------------|---|
| IEC              | Suitable for applications acc.   | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part<br>1: Safety requirements  |
| Compliances      |                                  |                |   |
| The product comp | blies with following Guide Lines |                |   |
| Identification   | Details                          | Initiator      | Description   |
| CE               | CE declaration of conformity     | SCHURTER AG    | The CE marking declares that the product complies with the applicable<br>requirements laid down in the harmonisation of Community legislation on<br>its affixing in accordance with EU Regulation 765/2008. |
| UK<br>CA         | UKCA declaration of conformity   | SCHURTER AG    | The UKCA marking declares that the product complies with the applicable<br>requirements laid down in the British Amendment of Regulation (EC)<br>765/2008.  |
| ROHS             | RoHS                             | SCHURTER AG    | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863  |
| <b>©</b>         | China RoHS                       | SCHURTER AG    | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.  |
| REACH            | REACH                            | SCHURTER AG    | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration,<br>Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as<br>"REACH") entered into force.                               |

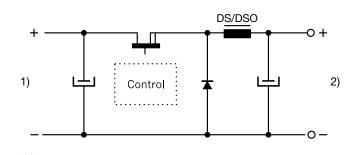
## Dimension [mm]



Dimensions: see table of variants

## Diagrams

Switch-mode



## 1) Input 2) DC output regulated

## All Variants

| 1 | I <sub>n</sub> [A] | L <sub>n</sub> [mH] | R <sub>cu</sub><br>[mΩ] | f <sub>RES</sub><br>[MHz] | Inductance<br>drop max [%] | A [mm] | B [mm] | C [mm] | D [mm] | Weight [g] | Packing unit [pcs.] | Order Number  |
|---|--------------------|---------------------|-------------------------|---------------------------|----------------------------|--------|--------|--------|--------|------------|---------------------|---------------|
|   | 0.5                | 0.8                 | 800                     | 0.8                       | 15                         | 15 mm  | 20 mm  | 7 mm   | 0.3 mm | 4 g        | 200                 | DS01-175-0001 |
|   | 0.63               | 0.5                 | 550                     | 2.5                       | 15                         | 15 mm  | 20 mm  | 7 mm   | 0.3 mm | 4 g        | 200                 | DS01-175-0002 |
|   | 0.63               | 1                   | 750                     | 1.7                       | 15                         | 19mm   | 20 mm  | 8.5 mm | 0.3 mm | 7 g        | 300                 | DS01-20-0001  |
|   | 1                  | 0.2                 | 200                     | 3.5                       | 15                         | 15 mm  | 20 mm  | 7 mm   | 0.4 mm | 4 g        | 200                 | DS01-175-0003 |
|   | 1.4                | 0.1                 | 100                     | 4                         | 20                         | 15 m m | 20 mm  | 7 mm   | 0.5 mm | 4 g        | 200                 | DS01-175-0004 |
|   | 1.4                | 0.2                 | 175                     | 4.7                       | 15                         | 19 mm  | 20 mm  | 8.5 mm | 0.4 mm | 8 g        | 200                 | DS01-20-0002  |
|   | 1.4                | 0.5                 | 200                     | 1.5                       | 20                         | 23 mm  | 25 mm  | 9 mm   | 0.5 mm | 13 g       | 200                 | DS01-25-0001  |
|   | 1.6                | 0.5                 | 200                     | 1.7                       | 15                         | 26 mm  | 25 mm  | 11 mm  | 0.5 mm | 19g        | 100                 | DS01-30-0001  |
|   | 2                  | 0.2                 | 120                     | 3.3                       | 20                         | 23 mm  | 25 mm  | 9mm    | 0.6 mm | 12 g       | 200                 | DS01-25-0002  |
|   | 2                  | 0.3                 | 140                     | 2.5                       | 15                         | 26 mm  | 25 mm  | 11 mm  | 0.5 mm | 17 g       | 100                 | DS01-30-0002  |
|   | 2                  | 1                   | 190                     | 1.2                       | 20                         | 39 mm  | 40 mm  | 14mm   | 0.7 mm | 55 g       | 35                  | DS01-40-0001  |
|   | 3                  | 0.035               | 20                      | 5                         | 20                         | 15 mm  | 20 mm  | 7 mm   | 0.8 mm | 4 g        | 200                 | DS01-175-0005 |
|   | 3.15               | 0.04                | 33                      | 13                        | 15                         | 19mm   | 20 mm  | 8.5 mm | 0.7 mm | 8 g        | 200                 | DS01-20-0003  |
|   | 3.15               | 0.1                 | 50                      | 5.7                       | 20                         | 23 mm  | 25 mm  | 9 mm   | 0.8 mm | 13 g       | 200                 | DS01-25-0003  |
|   | 3.15               | 0.15                | 70                      | 3.5                       | 15                         | 26 mm  | 25 mm  | 11 mm  | 0.7 mm | 19g        | 100                 | DS01-30-0003  |
|   | 3.15               | 0.5                 | 90                      | 1.5                       | 20                         | 39 mm  | 40 mm  | 14 mm  | 0.8 mm | 55 g       | 35                  | DS01-40-0002  |
|   | 3.15               | 1                   | 180                     | 0.8                       | 20                         | 43 mm  | 40 mm  | 18 m m | 0.8 mm | 104 g      | 50                  | DS01-48-0001  |
|   | 4                  | 0.1                 | 40                      | 5                         | 20                         | 26 mm  | 25 mm  | 11 mm  | 0.8 mm | 20 g       | 100                 | DS01-30-0004  |
|   | 4                  | 0.2                 | 55                      | 3                         | 20                         | 39 mm  | 40 mm  | 14 mm  | 0.8 mm | 52 g       | 50                  | DS01-40-0003  |
|   | 4                  | 0.5                 | 90                      | 1.5                       | 20                         | 43 mm  | 40 mm  | 18 mm  | 0.9 mm | 104 g      | 20                  | DS01-48-0002  |
|   | 5                  | 0.3                 | 75                      | 1.5                       | 20                         | 43 mm  | 40 mm  | 18 mm  | 0.8 mm | 104 g      | 20                  | DS01-48-0003  |
|   |                    |                     |                         |                           |                            |        |        |        |        |            |                     |               |

| I <sub>n</sub> [A] | L <sub>n</sub> (mH) | R <sub>cu</sub><br>[mΩ] | f <sub>RES</sub><br>[MHz] | Inductance<br>drop max [%] | A [mm] | B [mm] | C [mm] | D [mm] | Weight [g] | Packing unit [pcs.] | Order Number |
|--------------------|---------------------|-------------------------|---------------------------|----------------------------|--------|--------|--------|--------|------------|---------------------|--------------|
| 6                  | 0.1                 | 25                      | 5                         | 20                         | 39 mm  | 40 mm  | 14mm   | 1 mm   | 53 g       | 50                  | DS01-40-0004 |
| 6.3                | 0.01                | 8                       | 33                        | 15                         | 19 m m | 20 mm  | 8.5 mm | 0.9mm  | 9 g        | 300                 | DS01-20-0004 |
| 7                  | 0.02                | 10                      | 6.5                       | 20                         | 23 mm  | 25 mm  | 9mm    | 1.3 mm | 14 g       | 150                 | DS01-25-0004 |
| 9                  | 0.1                 | 20                      | 4                         | 20                         | 43 mm  | 40 mm  | 18 mm  | 1.2 mm | 104 g      | 250                 | DS01-48-0004 |
| 15                 | 0.035               | 7                       | 5                         | 20                         | 43 mm  | 40 mm  | 18 mm  | 1.8 mm | 104 g      | 250                 | DS01-48-0005 |
| 16                 | 0.16                | 12                      | 2.5                       | 20                         | 44 mm  | 40 mm  | 34 mm  | 2 mm   | 104 g      | 100                 | DS01-48-0006 |

 $\begin{array}{l} R_{cu} \text{ bei } T_{u} \text{ 20}^{\circ}\text{C} \\ \text{Inductance drop with I}_{n} \\ \text{Derating at } T_{u} \text{ >70}^{\circ}\text{C: I} = \text{I}_{nx} \left((125\text{-}T_{u})/55)^{0.5}\right. \end{array}$ 

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schurter:

DSO1-48-0004