

# Spezifikation für Freigabe / specification for release

Kunde / customer :  
 Artikelnummer / part number :

74489440180

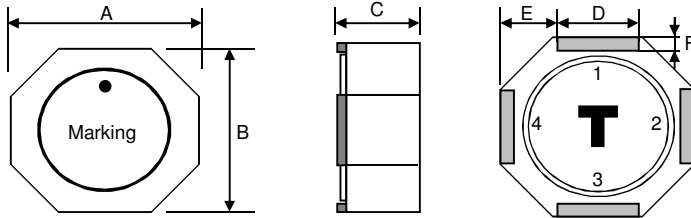


Bezeichnung :  
 description :

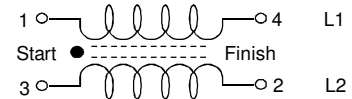
SPEICHERDROSSEL WE-TDC 8038  
 COUPLED INDUCTOR WE-TDC 8038

DATUM / DATE : 2010-08-31

## A Mechanische Abmessungen / dimensions:



|   | 8038      |    |
|---|-----------|----|
| A | 8,0 ± 0,3 | mm |
| B | 8,0 ± 0,3 | mm |
| C | 3,8 ± 0,3 | mm |
| D | 3,2 typ.  | mm |
| E | 2,4 typ.  | mm |
| F | 1,0 typ.  | mm |



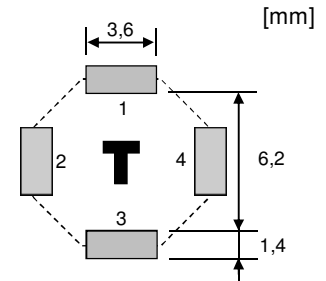
● start of winding

## B Elektrische Eigenschaften / electrical properties:

## C Lötpad / soldering spec.:

| Eigenschaften / properties                                                       | Testbedingungen / test conditions |                                   | Wert / value | Einheit / unit | tol.   |
|----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|--------------|----------------|--------|
| Induktivität (je Wicklg.) / inductance (each wdg.)                               | 100 kHz / 5mA                     | L <sub>1</sub> , L <sub>2</sub>   | 18           | μH             | +/-20% |
| DC-Widerstand (je Wicklg.) / DC-resistance (each wdg.)                           | @ 20°C                            | R <sub>DC1,2 typ</sub>            | 179          | mΩ             | typ.   |
| DC-Widerstand (je Wicklg.) / DC-resistance (each wdg.)                           | @ 20°C                            | R <sub>DC1,2 max</sub>            | 201          | mΩ             | max.   |
| Nennstrom (je Wicklg.) <sup>(1)</sup> / rated Current (each wdg.) <sup>(1)</sup> | ΔT = 40 K                         | I <sub>N1</sub> , I <sub>N2</sub> | 1,05         | A              | typ.   |
| Sättigungsstrom (je Wicklg.) / saturation current (each wdg.)                    | ΔL/L < 10%                        | I <sub>sat</sub>                  | 1,9          | A              | typ.   |
| Eigenres.-Frequenz / self-res.-frequency                                         |                                   | SRF                               | 15           | MHz            | typ.   |
| Nennspannung / rated Voltage                                                     |                                   | U <sub>DC</sub>                   | 80           | V              | max.   |

<sup>(1)</sup> Stromfluss durch beide Wicklungen verursacht ΔT / both windings driven by rated current will occur ΔT



## D Prüfgeräte / test equipment:

## E Testbedingungen / test conditions:

WAYNE KERR 3260B für/for L<sub>0</sub>; I<sub>SAT</sub>  
 Agilent N5776A für/for I<sub>DC</sub>;  
 GMC Metrahit 271 für/for R<sub>DC</sub>  
 Agilent E4991A für/for SRF

Luftfeuchtigkeit / humidity: 33%  
 Umgebungstemperatur / temperature: +20°C

## F Werkstoffe & Zulassungen / material & approvals:

## G Eigenschaften / general specifications:

Basismaterial / base material: Ferrit/ ferrite  
 Draht / wire: Class H  
 Endoberfläche / finishing electrode: Ag/Ni/Sn

Betriebstemp. / operating temperature: -40°C - +125°C  
 Umgebungstemp. / ambient temperature: -40°C - +85°C  
 It is recommended that the temperature of the part does not exceed 125°C under worst case operating conditions.

|                                     |                          |      |                         |              |
|-------------------------------------|--------------------------|------|-------------------------|--------------|
| Freigabe erteilt / general release: | Kunde / customer         |      |                         |              |
|                                     |                          |      |                         |              |
| Datum / date                        | Unterschrift / signature |      |                         |              |
|                                     | Würth Elektronik         |      |                         |              |
|                                     |                          |      |                         |              |
| Geprüft / checked                   | Kontrolliert / approved  | ALa  | Version 1               | 10-08-31     |
|                                     |                          | Name | Änderung / modification | Datum / date |

**Würth Elektronik eiSos GmbH & Co. KG**

D-74638 Waldenburg · Max-Eyth-Strasse 1 · Germany · Telefon (+49) (0) 7942 - 945 - 0 · Telefax (+49) (0) 7942 - 945 - 400  
<http://www.we-online.de>

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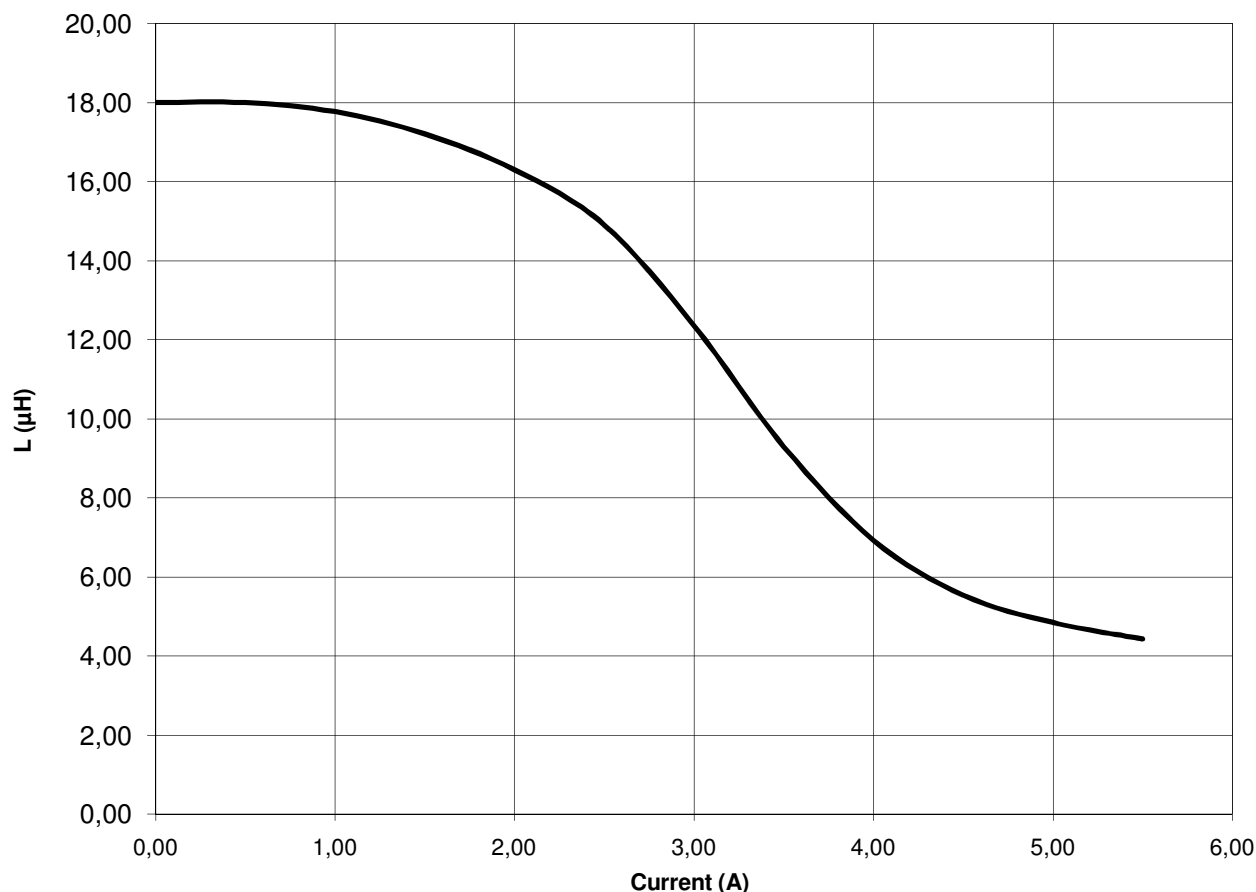
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 Artikelnummer / part number : **74489440180**  
 Bezeichnung : **SPEICHERDROSSEL WE-TDC 8038**  
 description : **COUPLED INDUCTOR WE-TDC 8038**



DATUM / DATE : 2010-08-31

## H Induktivitätskurve / Inductance curve:

**Induktivität vs Strom (typ.)/  
 Inductance vs Current (typ.)**



|                                     |                          |           |                         |
|-------------------------------------|--------------------------|-----------|-------------------------|
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|                                     |                          |           |                         |
|                                     | ALa                      | Version 1 | 10-08-31                |
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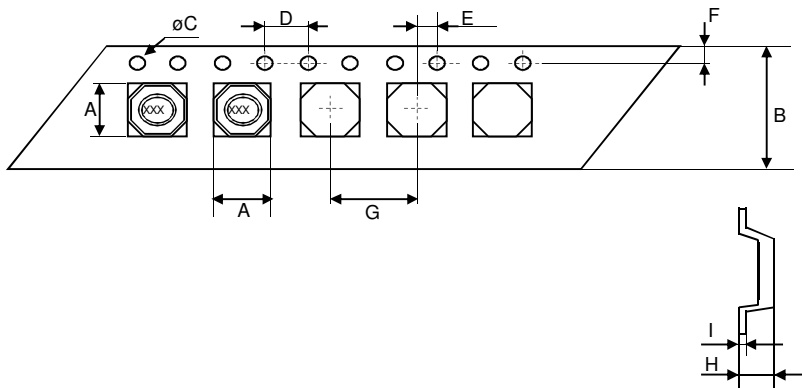
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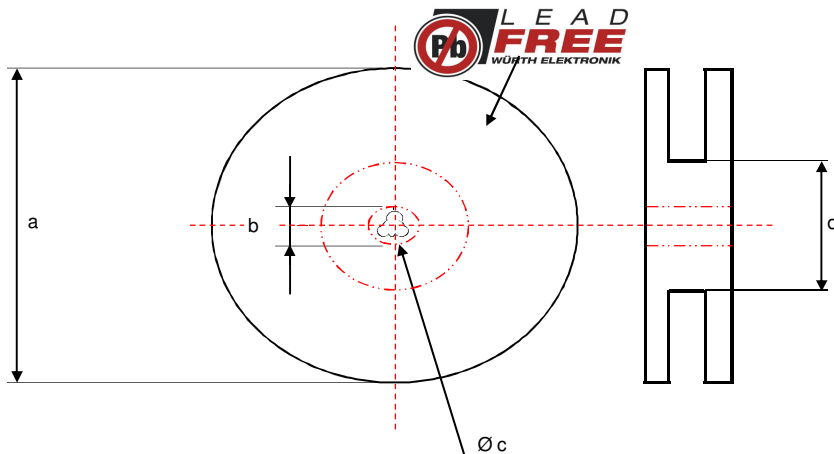
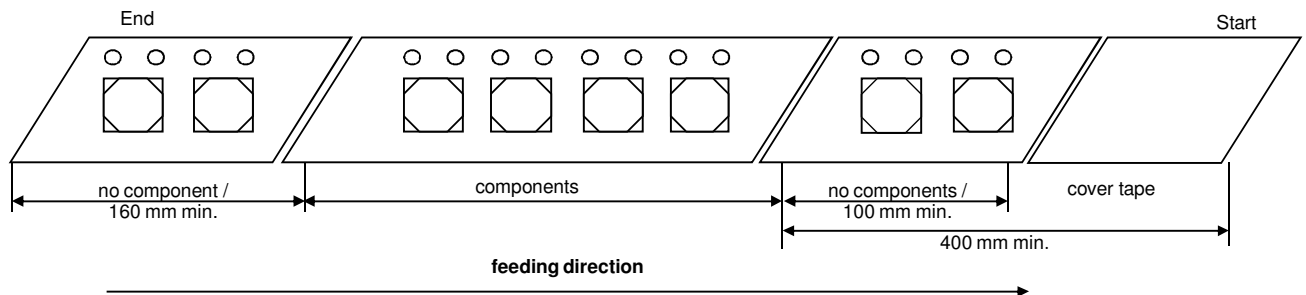
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## I Rollenspezifikation / tape and reel specification:

## Gurtspezifikation / Tape specification:



|   |            |    |
|---|------------|----|
| A | 8,4 ± 0,1  | mm |
| B | 16,0 ± 0,3 | mm |
| C | 1,5 ± 0,1  | mm |
| D | 4,0 ± 0,1  | mm |
| E | 2,0 ± 0,1  | mm |
| F | 7,5 ± 0,1  | mm |
| G | 12,0 ± 0,1 | mm |
| H | 4,1 ± 0,1  | mm |
| I | 0,4 ± 0,05 | mm |



| Rollenspezifikation / Reel specification: |             |    |
|-------------------------------------------|-------------|----|
| a                                         | 178,0 ± 2,0 | mm |
| b                                         | 21,00 ± 0,8 | mm |
| c                                         | 13,00 ± 0,5 | mm |
| d                                         | 50,00 ± 1,0 | mm |

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Würth Elektronik

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ALa

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This electronic component has been designed and developed for usage in general electronic equipment. Before incorporating this component into any equipment where higher safety and reliability is especially required or if there is the possibility of direct damage or injury to human body, for example in the range of aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc, Würth Elektronik eiSos GmbH must be informed before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

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