

September 04, 2009

## Notification of changes

### **Adjustment of coating thickness for ferrite ring cores with diameter of 38.1 mm**

In order to improve the product quality of the EPCOS ferrite ring cores with diameter of 38.1 mm, the thickness of the epoxy coating will be increased from 0.3 mm to 0.4 mm. With this adjustment it will be possible to better guarantee a minimum value breakdown voltage of 2 kV for the coating insulation. This adaptation will cause a slight change in the dimensions of the concerned ring cores. All other electrical and mechanical parameters of these cores will remain unchanged.

Affected products:

- B64290L0668X\*
- B64290L0755X\*

For detailed information on the coating dimensions, please see the attached data sheets. The ordering codes of the cores will remain unchanged.

Date of introduction: December 4, 2009

**Enclosure** Notification of changes (PCN)  
Data sheets

**Contact** Sandra Wiesnet, IN TCF FER PM, Munich  
Jiri Tomasek, SMP IN FER D PD, Šumperk

**Customers should address inquiries directly to their EPCOS sales contacts.**



**Product / Process Change Notification  
Produkt-/ Prozess-Änderungsmitteilung**

<b>1. ID No. / ID-Nr.:</b> CPP338		<b>2. Date of announcement / Datum der Ankündigung:</b> Sept. 04, 2009	
<b>3. Type / Produktgruppe:</b> R 38.1 / 19.5 / 12.7 R 38.1 / 19.5 / 25.4	<b>Old ordering code / Alte Bestell-Nr.:</b> B64290L0668X* B64290L0755X*	<b>New ordering code / Neue Bestell-Nr.:</b> no change keine Änderung	<b>Customer part number / Kundensachnummer:</b>
<b>4. Description of change / Beschreibung der Änderung:</b> Change of dimensions of coated core to improve quality of coating Anpassung der Schichtdicke der Parylenbeschichtung zur Qualitätsverbesserung  Old /alte version of /von B64290L0668X* : OD = 39.2 mm max; ID = 18.05 mm min.; H = 13.6 mm max. New /neue version of /von B64290L0668X*: OD = 39.4 mm max; ID = 17.85 mm min.; H = 13.8 mm max.  Old /alte version of /von B64290L0755X*: OD = 39.2 mm max; ID = 18.05 mm min.; H = 26.6 mm max. New / neue version of /von B64290L0755X*: OD = 39.4 mm max; ID = 17.85 mm min.; H = 26.8 mm max.			
<b>5. Effect on the product or for customers (quality, specification, lead time) / Auswirkung auf das Produkt oder für den Kunden (Qualität, Spezifikation, Lieferzeiten):</b> Change of dimension specification / Änderung der Abmessungsspezifikation			
<b>6. Quality assurance measures / Maßnahmen zur Qualitätssicherung:</b>			
<b>7. Scheduled date of introduction / Geplante Einführung:</b> Two weeks after approval / 2 Wochen nach der offiziellen Bestätigung			
<b>8. Customer feedback / Rückmeldung vom Kunden:</b> If EPCOS does not receive notification to the contrary within a period of 10 weeks, EPCOS assumes that the customer agrees to the change. For an interim period we cannot rule out that old as well as new products will be shipped. Falls EPCOS innerhalb von 10 Wochen keine gegenteilige Mitteilung erhält, geht EPCOS davon aus, dass die geplante Änderung vom Kunden akzeptiert ist. Innerhalb einer Übergangszeit kann es vorkommen, dass sowohl alte wie auch neue Ware geliefert wird.			
Quality Management: Name: P. Vancura		Signature sgd. Vancura P.	
Product Marketing: Tel: +49 89 636-42739 Fax: +49 89 636-22198 E-mail: Sandra.Wiesnet@epcos.com Name: Sandra Wiesnet		Signature sgd. Wiesnet S.	
Customer acknowledgement Bestätigung durch den Kunden		Signature	



## Ferrites – Ring cores

R38.1/19.05/12.7

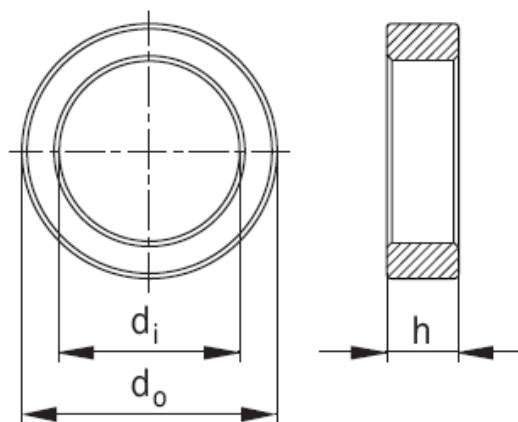
**Series/Type:**            **B64290L0668X\*\*\***

Date:                        2009-08-19

Version:                    2

**Magnetic characteristics:**

$$\begin{aligned} \Sigma l/A &= 0.71 \text{ mm}^{-1} \\ l_e &= 82.97 \text{ mm} \\ A_e &= 116.2 \text{ mm}^2 \\ V_e &= 9644 \text{ mm}^3 \end{aligned}$$

**Approx. weight : 52 g**

**Dimensions:**

	(uncoated)	(coated)
$d_o$	$38.1 \pm 0.5 \text{ mm}$	(39.4 mm max)
$d_i$	$19.05 \pm 0.4 \text{ mm}$	(17.85 mm min)
$h$	$12.7 \pm 0.3 \text{ mm}$	(13.8 mm max)

**Coating:** Blue epoxy

**High-pot test:** 2000 V min

Material	$A_L$ value <sup>1)</sup> nH	$\mu_i$ (approx.)	$AL_{1min}$ nH	Ordering code
N87	$3870 \pm 25\%$	2200	-	B64290L0668X087
N30	$7570 \pm 25\%$	4300	-	B64290L0668X830
T65	$8800 \pm 30\%$	5000	-	B64290L0668X065
T37	$10500 \pm 25\%$	6000	-	B64290L0668X037
T38	$17600 \pm 30\%$	10000	-	B64290L0668X038

1) Measurement parameter:  $f = 10 \text{ kHz}$  /  $B \leq 1 \text{ mT}$  / 1 turn / room temperature

## Cautions and warnings

### Mechanical stress and mounting

Ferrite cores have to meet mechanical requirements during assembly and for a growing number of applications. Since ferrites are ceramic materials one has to be aware of their special behavior under mechanical load.

Just like any ceramic material, ferrite cores are brittle and sensitive to any shock, fast changing or tensile load. Especially fast cooling rates under ultrasonic cleaning, high static and cyclic loads can cause cracks or failure of the ferrite cores.

For detailed information see Data Book 2007, chapter “General – Definitions, 8.1”.

### Effects of core combination on AL value

Stresses in the core affect not only the mechanical but also the magnetic properties. It is apparent that the initial permeability is dependent on the stress state of the core. The higher the stresses are in the core, the lower the value for the initial permeability. Thus, the embedding medium should offer the greatest possible elasticity.

For detailed information see Data Book 2007, chapter “General – Definitions, 8.2”.

### Heating up

Ferrites can run hot during operation at higher flux densities and higher frequencies.

### NiZn-materials

The magnetic properties of NiZn-materials can change irreversibly when exposed to strong magnetic fields.

### Processing notes

- The start of the winding process should be soft. Otherwise, the flanges may be destroyed.
- Excessive winding forces may damage the flanges or squeeze the tube so that the cores can no longer be mounted.
- Excessive soldering time at high temperature (>300 °C) may affect coplanarity or pin arrangement.
- Not following the processing notes for soldering of the J-leg terminals may cause solderability problems at the transformer because of contamination with tin oxide (SnO) from the tin bath or burned insulation from the wire. For detailed information see Data Book 2007, chapter “Processing notes, 2.2”.
- The dimensions of the pin hole arrangement are fixed and should be understood as an ideal recommendation for drilling the printed circuit board. In order to avoid problems when mounting the transformer, customers should make allowances for manufacturing tolerances in the drilling and pick-and-place processes by increasing the diameter of the pin holes.

## Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
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## **Ferrites – Ring cores**

R38.1/19.05/24.5

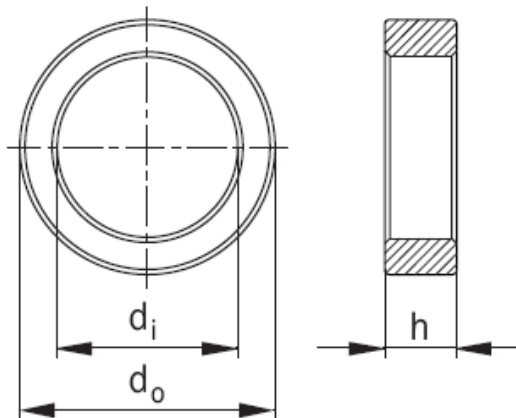
**Series/Type:**            **B64290L0755X046**

Date:                        2009-08-19

Version:                    2

**Magnetic characteristics:**

$$\begin{aligned} \Sigma l/A &= 0.36 \text{ mm}^{-1} \\ l_e &= 82.97 \text{ mm} \\ A_e &= 232.48 \text{ mm}^2 \\ V_e &= 19289 \text{ mm}^3 \end{aligned}$$

**Approx. weight : 104 g**

**Dimensions:**

	(uncoated)	(coated)
$d_o$	$38.1 \pm 0.5 \text{ mm}$	(39.4 mm max)
$d_i$	$19.05 \pm 0.4 \text{ mm}$	(17.85 mm min)
$h$	$25.4 \pm 0.6 \text{ mm}$	(26.8 mm max)

**Coating:** Blue epoxy

**High-pot test:** 2000 V min

Material	$A_L$ value <sup>1)</sup> nH	$\mu_i$ (approx.)	$AL_{1min}$ nH	Ordering code
T46	$28000 \pm 30\%$	8000	-	B64290L0755X046
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