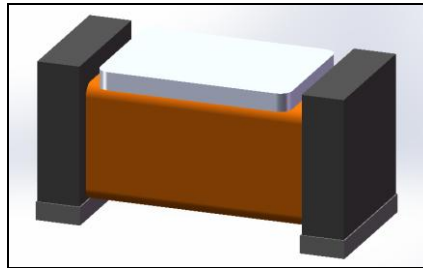
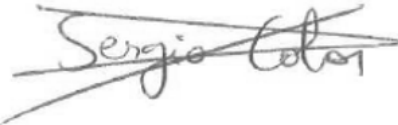
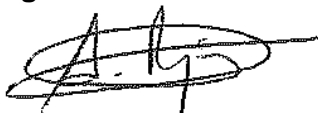



	CUSTOMER CONTINENTAL	CUSTOMER CODE	PART DESCRIPTION TC0502 5.89mH 4% 125kHz Foam		
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**TC0502 FOAM**  
**5.89mH ± 4% @125kHz**


<b>Made by:</b> Sergio Cobos	<b>Checked by:</b> A. Rojas	<b>Approved by:</b> F. Bustos
<b>Date:</b> 26/03/15	<b>Date:</b> 09/04/2015	<b>Date:</b> 16/04/2015
<b>Signature:</b> 	<b>Signature:</b> 	<b>Signature:</b> 

**NOTES**

Critical characteristics marked with (\*)

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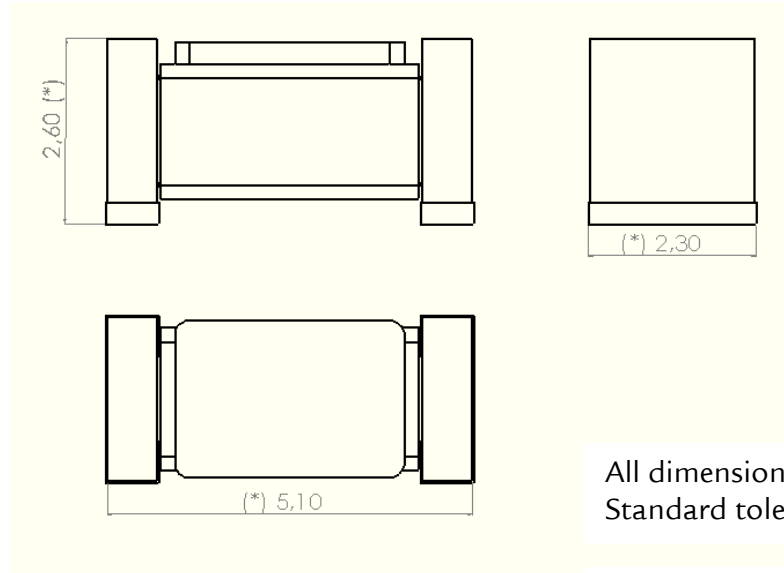


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## 1.- DIMENSIONS AND WEIGHT

### 1.1. DIMENSIONS:



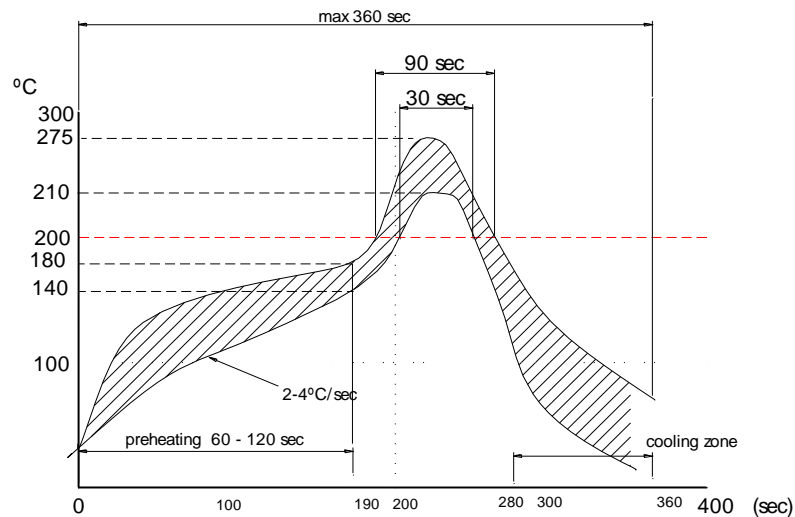
(\*) *Critical dimensions*

### 1.2. WEIGHT:

- Part weight: 0,12 gr.

## 2.-SOLDERING

### 2.1.-RECOMMENDED REFLOW PROFILE




The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine, reflow conditions, method, etc used.

#### NOTES

Critical characteristics marked with (\*)

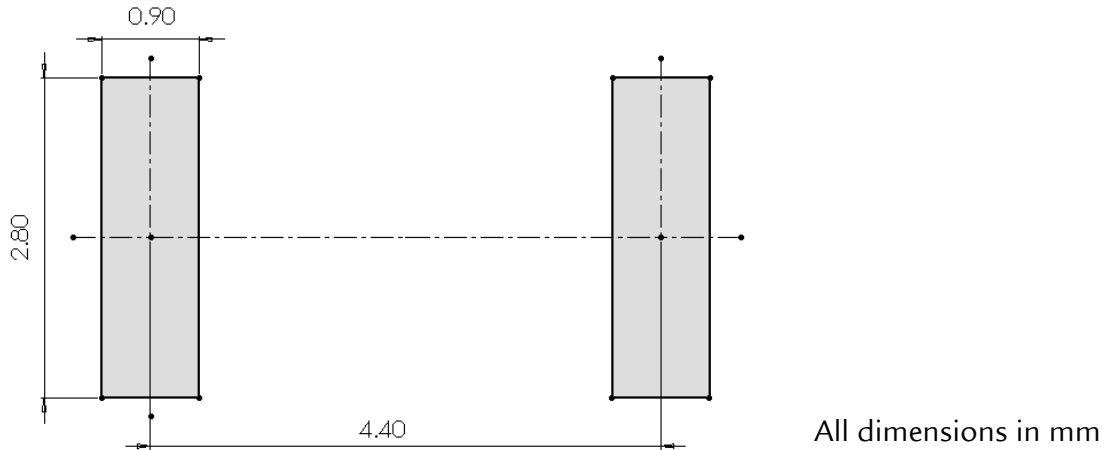
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## 2.2.-RECOMMENDED PAD LAYOUT



## 3.-MATERIALS

### 3.1.- FERRITE CORE MATERIAL

Ni-Zn ferrite core with the following magnetic characteristics:

Initial permeability  $\mu_i$ : 800 (at 25 °C, 10 kHz)

Curie temperature  $T_C$ : >160 °C

### 3.2.- METALLIZATIONS

Type of metallization: Ag-Pd + Ni + Sn100

Thickness of each metallization layer:

Ag-Pd: 15  $\mu\text{m}$  MIN / 45  $\mu\text{m}$  MAX

Ni: 1  $\mu\text{m}$  MIN

Sn100: 2  $\mu\text{m}$  MIN / 8  $\mu\text{m}$  MAX

### 3.3.- WIRE

Enamelled wire with modified Polyurethane, isolation Grade 1; norms IEC 317-20, MW79.

### 3.4.- LABEL

Polymide film printable (0,075mm) + Acrylic foam tape (0,250mm). Total label thickness: 0,325mm typical.

#### NOTES

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#### 4. - PARTICULAR CHARACTERISTICS OF THE PART

Wire $\Phi_{Cu}$ (mm) 0.032 P180	Number of turns in the winding 730 <sub>TYP</sub>	@125kHz, 1 Vac, 25 °C	
Rdc ( $\Omega$ ) 95 $\pm$ 10%	SRF (kHz) @ 1Vac, 25 °C > 550 (*)	L (mH) 5,89 $\pm$ 4% (*)	Q <sub>MIN</sub> 26 (*)
Sensitivity (mV <sub>pp</sub> /μT) @ 125kHz > 30			

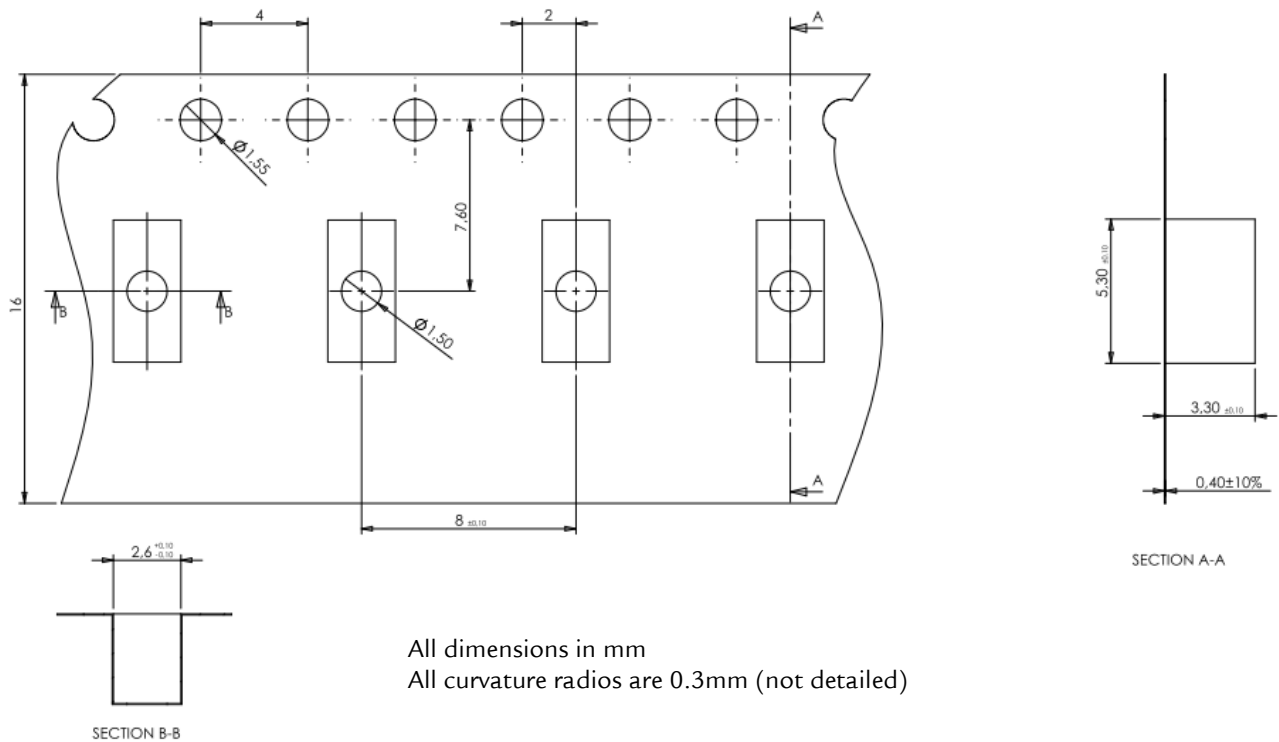
Inductance, Q factor, R<sub>dc</sub> and SRF measured with an LCR meter Wayne Kerr PMA 3260A

Inductance, Q factor measured with ICT needles.

(\*) Critical characteristics

#### 5.- PACKAGING

##### 5.1.- TAPING SPECIFICATION (According to EIA481)




#### NOTES

Critical characteristics marked with (\*)

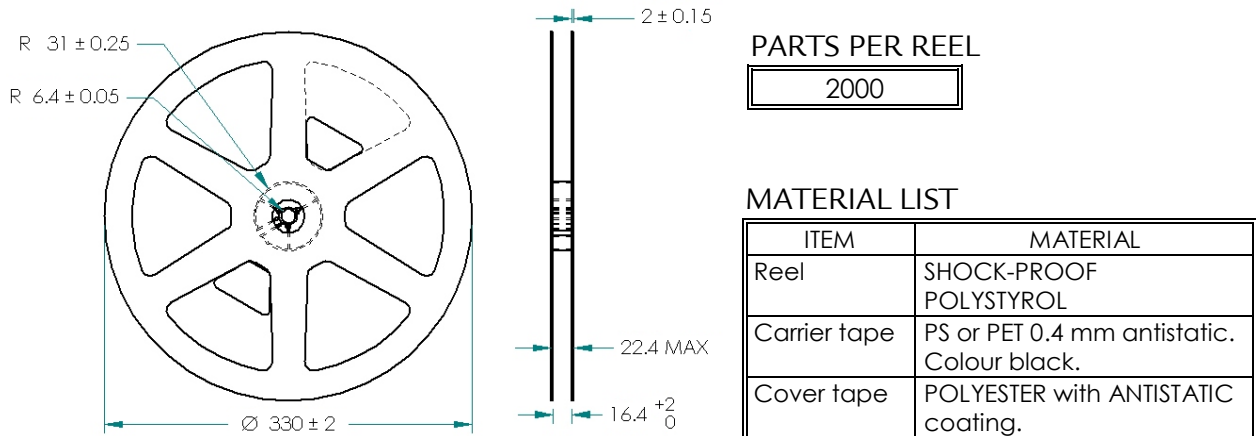
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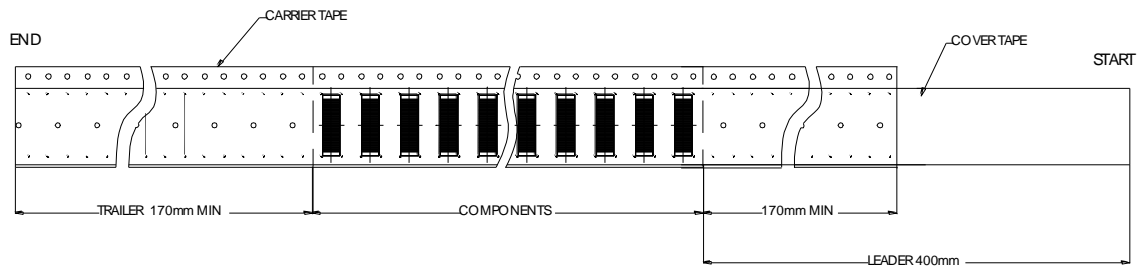
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## 5.2.- REEL



All dimensions in mm

## 5.3. TAPING



## 6.- GENERAL CONDITIONS


Temperature Range: -40 to +125 °C  
 Operating Frequency: 125 KHz  
 Operating Voltage: <50 Volts  
 Operating Current: <5mArms  
 Storage Temperature: -40 to 125 °C

### NOTES

Critical characteristics marked with (\*)

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## 7. - EDITION CONTROL

Edition	Date	Change description	Made by
1 <sup>st</sup>	21/05/14	First edition	Sergio Cobos
2 <sup>nd</sup>	17/06/14	Updated electrical values and wire diameter. Final dimensions to be defined after plastic cap design	Sergio Cobos
3 <sup>rd</sup>	11/07/14	Updated dimensions. Added plastic cap. Updated carrier	Sergio Cobos
4 <sup>th</sup>	28/07/14	Updated dimensions in section 1.1. Updated weight in section 1.2. Updated carrier in section 5.1. Updated minimum sensitivity from 38mVpp/App/m to 30mVpp/μT in section 4.	Sergio Cobos
5 <sup>th</sup>	29/10/14	Changed to label option (instead cap). Updated label properties in section 3.4	Sergio Cobos
6 <sup>th</sup>	09/12/14	Updated number of turns from 750 to 730 turns (section 5).	Sergio Cobos
7 <sup>th</sup>	18/12/14	Updated right tolerance (4%) in header of the document.	Sergio Cobos
8 <sup>th</sup>	26/03/15	Updated ferrite properties in section 3.1 and section 3.2	Sergio Cobos

### NOTES

Critical characteristics marked with (\*)

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