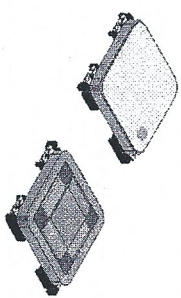



CUSTOMER		CUSTOMER CODE		PART DESCRIPTION		
				3D COIL 15x15 2.38mH $\pm 5\%$ @125 kHz label.		
INTERNAL CODE	DATE	EDITION	DOCUMENT NAME	PAGE		
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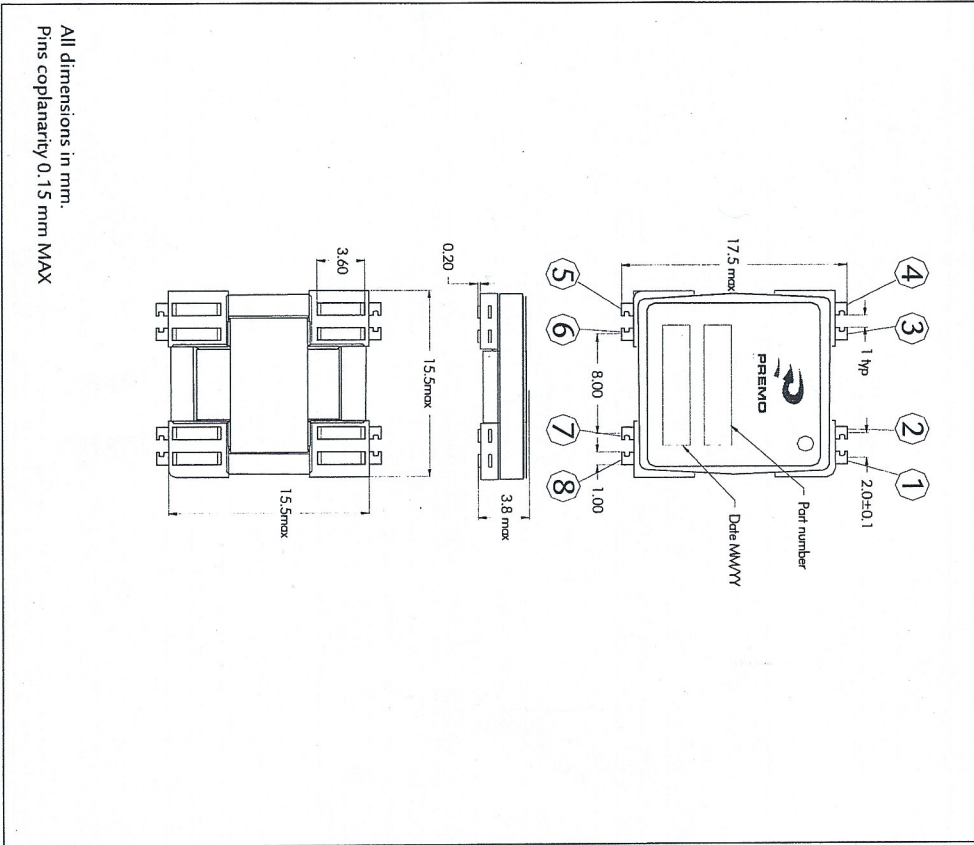


3D COIL 15x15 NEW DESIGN SMD DROP RESISTANT TRANSPONDER 3D COIL 15.9x15.9 mm RoHS COMPLIANT


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1.- DIMENSIONS



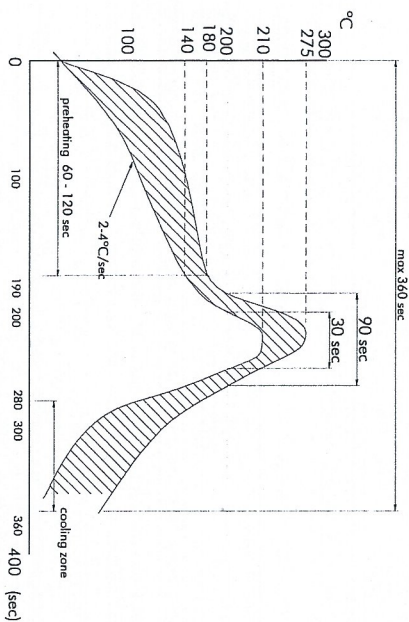
All dimensions in mm.
Pins coplanarity 0,15 mm MAX

CUSTOMER		CUSTOMER CODE		PART DESCRIPTION	
				3D COIL 15x15 2.38mH ±5% @125 KHz label.	
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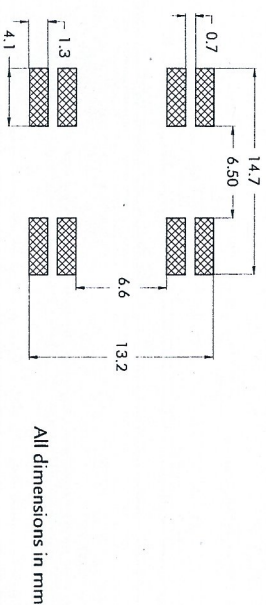
2.- SOLDERING

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.

2.2.- RECOMMENDED PAD LAYOUT




All dimensions in mm

NOTES

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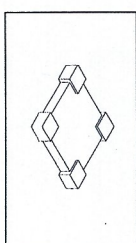
CUSTOMER		CUSTOMER CODE		PART DESCRIPTION	
				3D COIL 15x15 2.38mH ±5% @125 KHz label.	
INTERNAL CODE	DATE	EDITION	DOCUMENT NAME	PAGE	
P-1095-007	30/08/2006	2	E3DC1515N_0238L_2	4/7	

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3.- MATERIALS

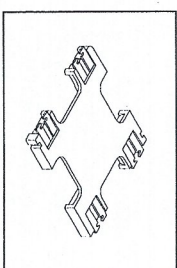
3.1.- FERRITE CORE MATERIAL

Initial permeability μ_i : 1000 \pm 25 % (at 25 °C, <10 KHz, 0.1 mT)
Tc \geq 130°C.
Bs: \approx 330mT (at 25°C;10KHz,250A/m).



3.2.- SMD BASE (LEADFRAME)

Plastic material: LCP E4008.
Tinned terminals: 0.25 mm total thickness.
Base material CuSn6 (Phosphor Bronze), 2-3 μ m Cu
4-6 μ m Sn100 (finish layer)



3.3.- WIRE

For X and Y windings: Enamelled wire with modified Polyurethane P155, isolation Grade 1.
For Z winding: selfbonding wire with modified Polyurethane B155, isolation Grade 2B.
Diameters range depending on the design: 0.020 mm to 0.1 mm.

3.4.- LABEL

Material acrylate 3M reference 3921

NOTES

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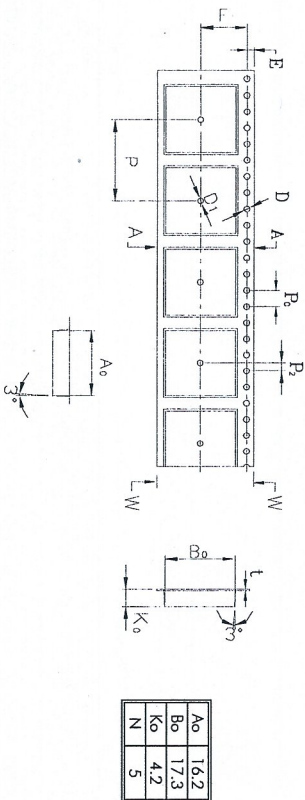


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		3D COIL 15x15 2.38mH ±5% @125 kHz label.		
INTERNAL CODE	DATE	EDITION	DOCUMENT NAME	PAGE
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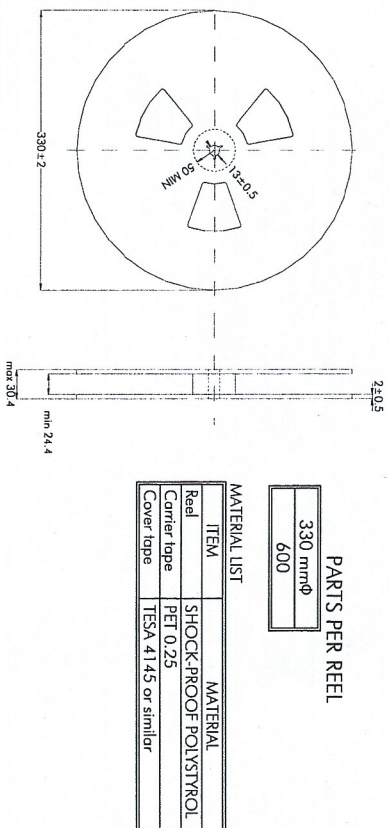
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4.- PACKAGING

4.1.- TAPING SPECIFICATION (According to EIA481)



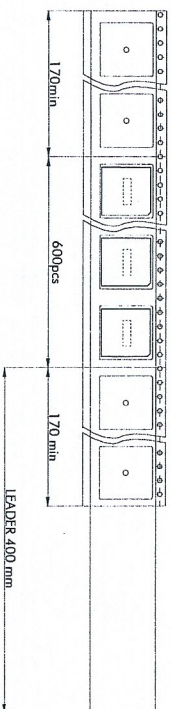
4.2.- REEL



MATERIAL LIST

ITEM	MATERIAL
Reel	SHOCK-PROOF POLYSTYROL
Carrier tape	PET 0.25
Cover tape	TESA 4145 or similar

4.3. TAPING



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P-1095-007	30/08/2006	2	E3DC151SN_0238J_2	6/7

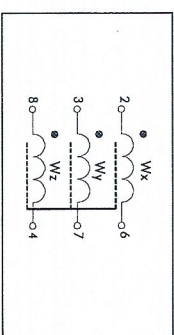
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E-mail: max.villanueva@grupopremo.com Web http://www.grupopremo.com

5.- ELECTRICAL CHARACTERISTICS OF THE PART

X Winding			
Wire Φ_{cu} (mm)	Number of turns in the winding	@125 kHz, 1 Vac, 25 °C	
0.06 P1 S5	284 _{typ}	L (mH)	Q
Rdc (Ω)	SRF (kHz) @ 1Vac, 25 °C	2.38 ± 5%	33 ± 10%
43 ± 10%	> 450		
Sensitivity (mV _{rms} /A _{rms} /m) @ 125 kHz	> 50		


Y Winding			
Wire Φ_{cu} (mm)	Number of turns in the winding	@125 kHz, 1 Vac, 25 °C	
0.06 P1 S5	284 _{typ}	L (mH)	Q
Rdc (Ω)	SRF (kHz) @ 1Vac, 25 °C	2.38 ± 5%	33 ± 10%
43 ± 10%	> 450		
Sensitivity (mV _{rms} /A _{rms} /m) @ 125 kHz	> 50		

Z Winding			
Wire Φ_{cu} (mm)	Number of turns in the winding	@125 kHz, 1 Vac, 25 °C	
0.07 B1 S5	281 _{typ}	L (mH)	Q
Rdc (Ω)	SRF (kHz) @ 1Vac, 25 °C	2.38 ± 5%	26 ± 10%
66 ± 10%	> 1000		
Sensitivity (mV _{rms} /A _{rms} /m) @ 125 kHz	> 50		



NOTES

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5.1.- OPERATING FREQUENCY AND TEMPERATURE

The operating frequency of the design is 125 kHz.
Operating temperature range: -40 °C → +85 °C

6.- EDITION CONTROL

Edition	Date	Change description	Made by
1 st	02/08/06	First edition	MM Villarubia
2 nd	30/08/06	Update specification	Antonio Roldán

NOTES

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