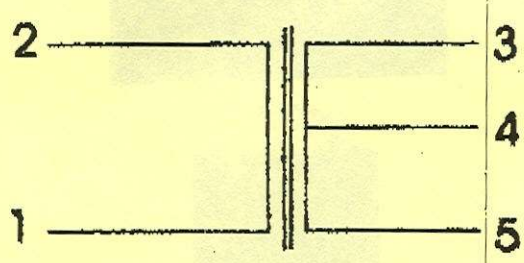
Att Richard
01535 635582
Spec as requested. sorry so long.

P631T specification

PROCTOR

1. Schematic



2. Electrical characteristics

2-1 Inductance: Pin1 – Pin2 = 2.0H ± 20% at 1 kHz 0.25V LCR series connection
Pin3 – Pin5 = 600mH ± 20% at 1 kHz 0.25V LCR series connection

2-2 Insulation resistance between coil to coil and to core is over 100M ohm at 500VDC .

2-3 Dielectric strength

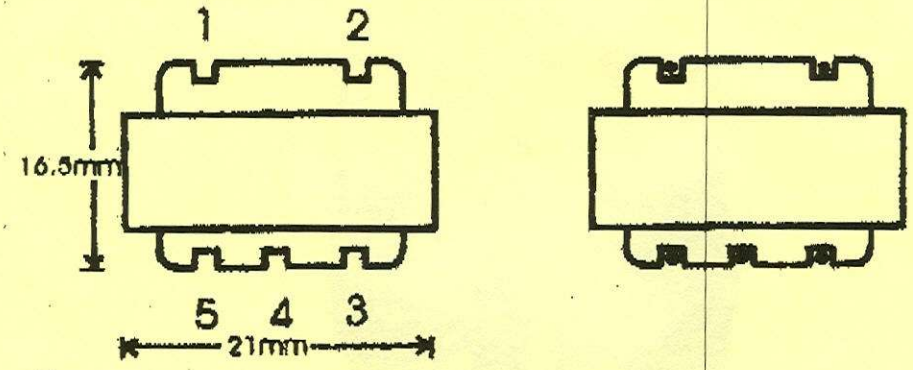
1. Primary to core: 500VAC 5mA 1 sec
2. Secondary to core: 500VAC 5mA 1 sec

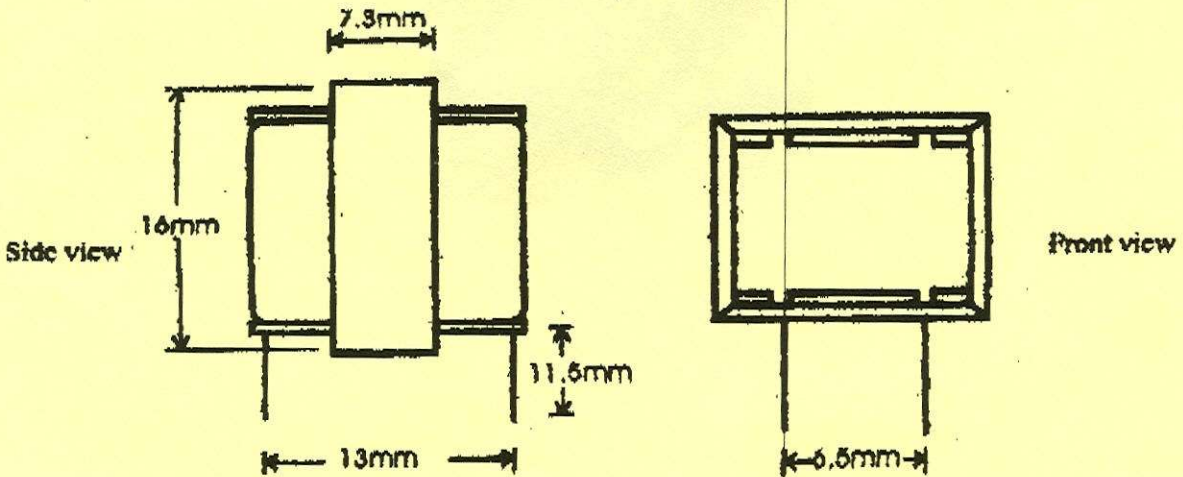
2-4 DC resistance: at 25℃

Pin1 – Pin2: 1.0Ω ±20%
Pin3 -- Pin5: 75.6Ω ±20%

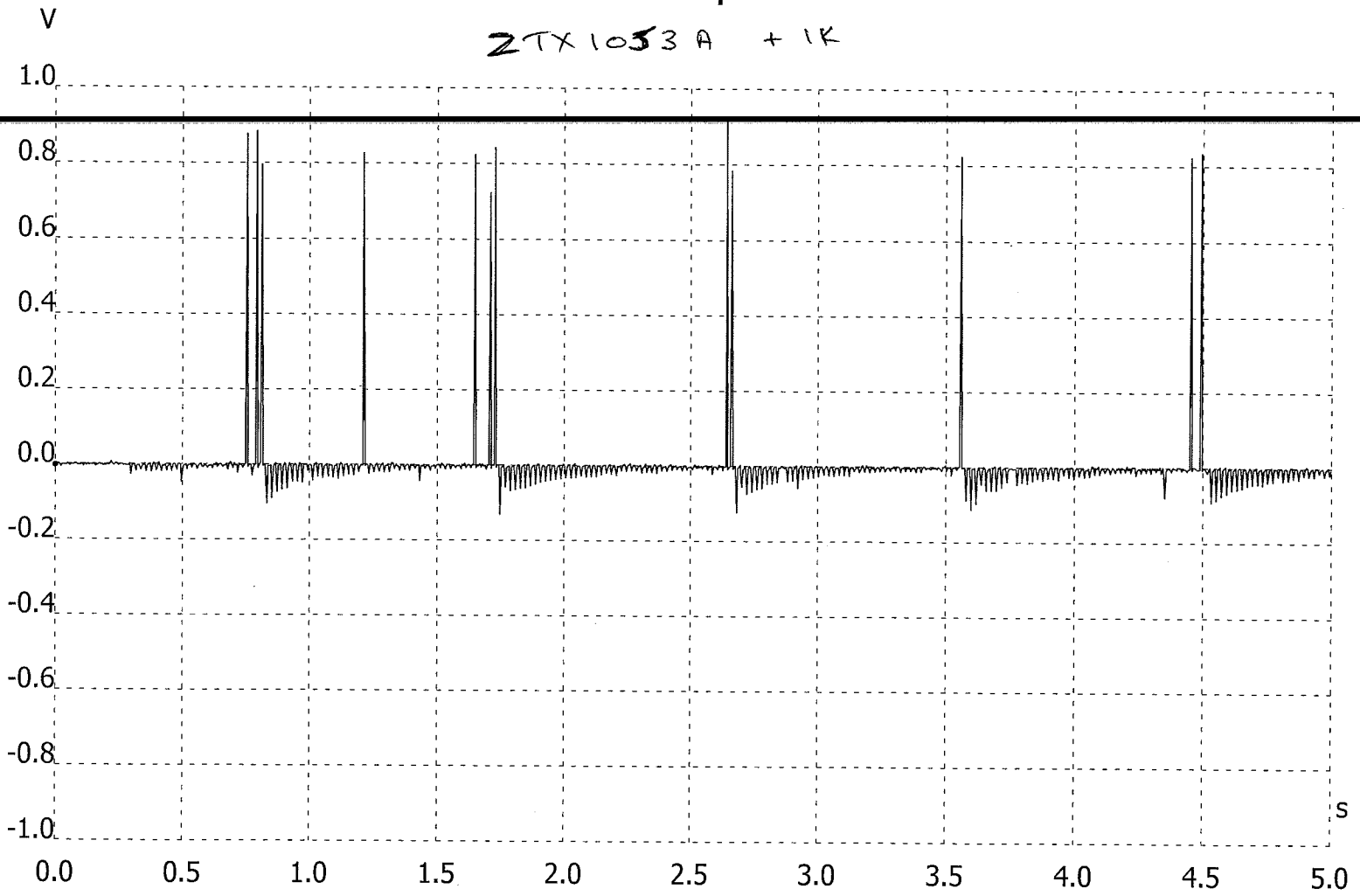
3. Bobbin dimensions triple wire

Top view



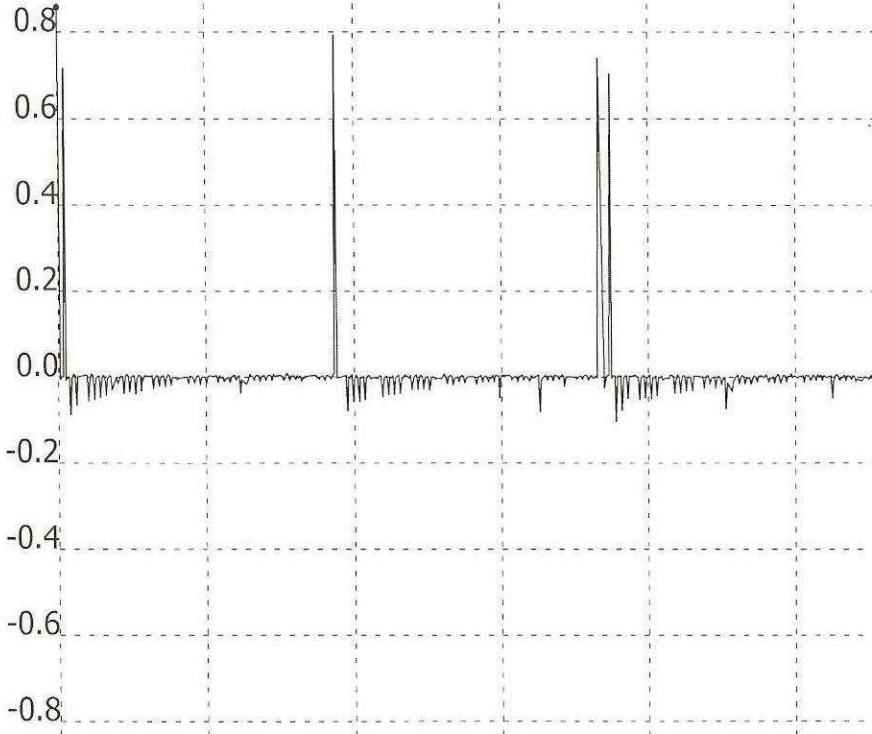


Scope

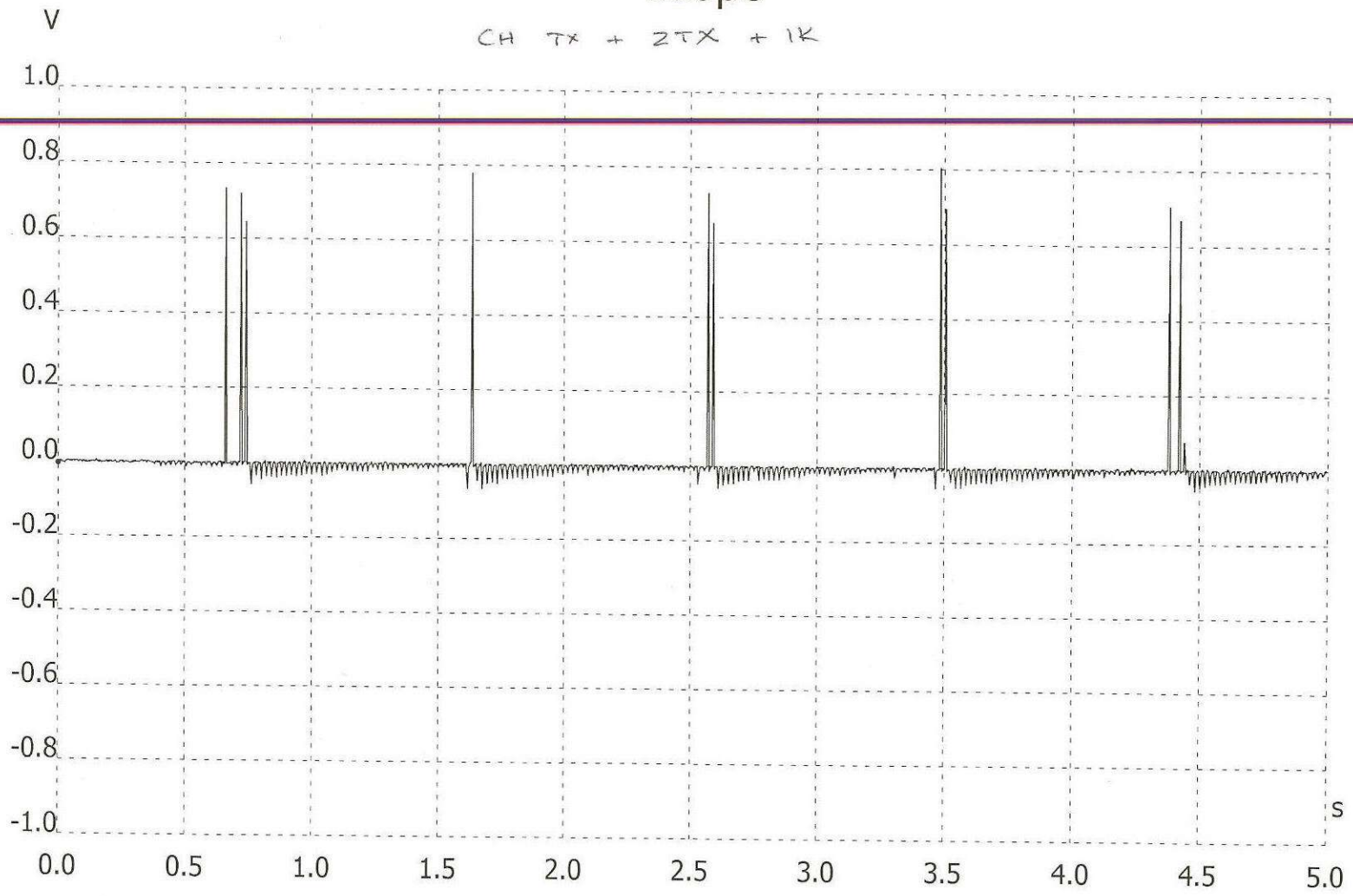


ch A: Peak to peak (mV) 1044
ch A: Frequency (Hz) Not enough data

24Mar2006 12:21

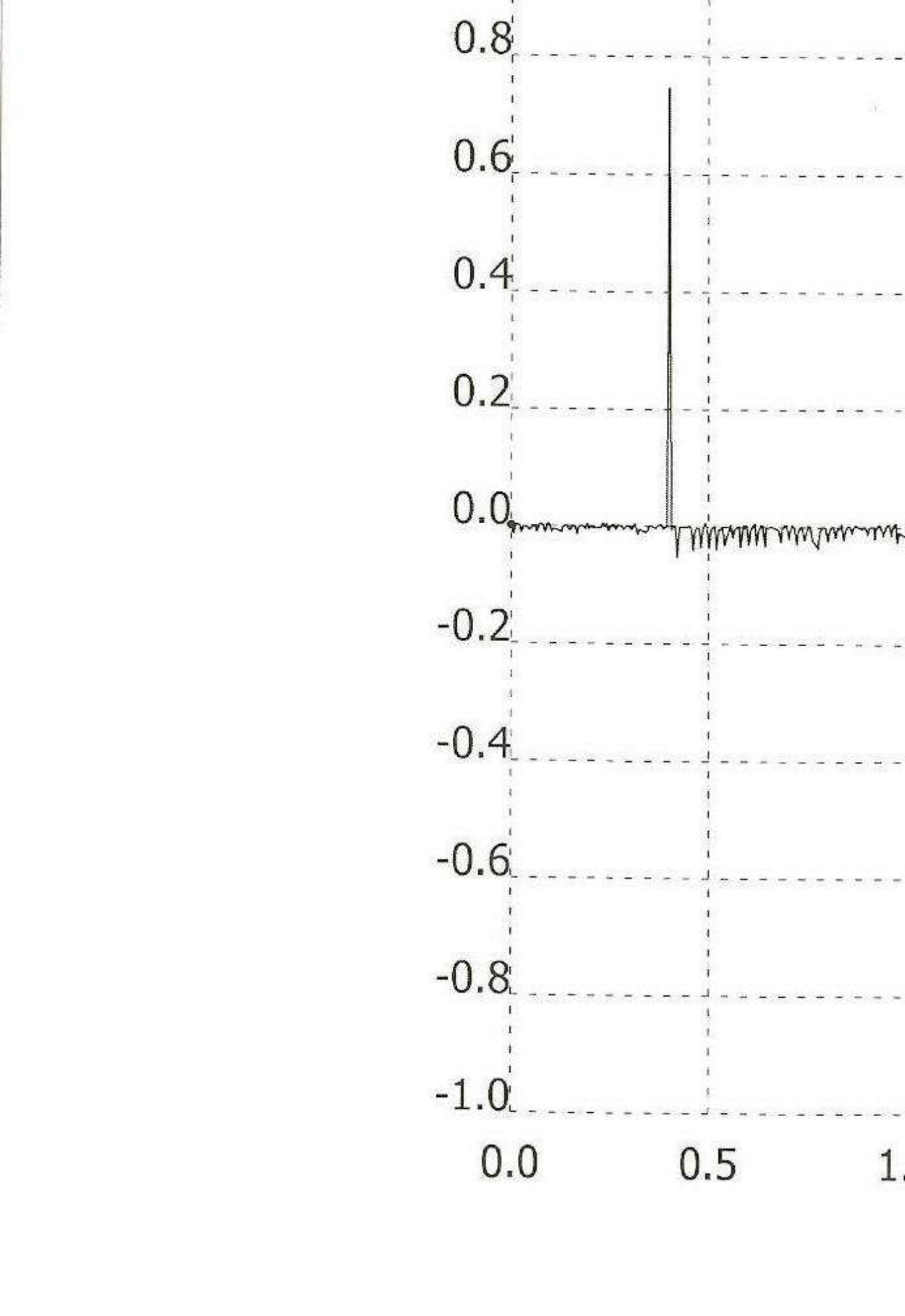

0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8

Scope



ch A: Peak to peak (mV)	873.7
ch A: Frequency (Hz)	Not enough data

24Mar2006 12:49

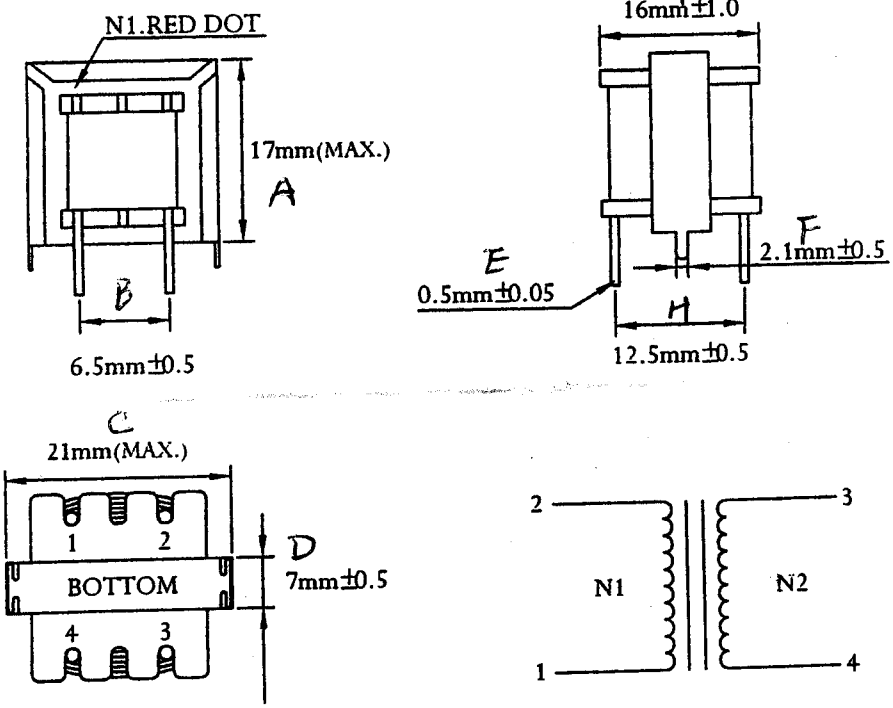

0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
0.0
0.5

MATSUTA
旺興達有限公司
MATSUTA CO., LTD.
Fax No.852-2754 5674
852-2796 3530
Tel: 852-2796 6693

Rev (版本): A DCC NO. (文件編號): BW-SPC-ENG-734 Date (日期): May 30, 2005 Page (頁數): 1/2

SPECIFICATION (規格書)

CUSTOMER NAME (客戶) : AUTOMATIC
ADDRESS (地址) :
ATTENTION (收件者) :
PART NAME (型號) : EI-19
PART NO. (編號) : BW-0586B



1) DC RESISTANCE (直流電阻)
(N1) 1Ω (±20%) AT 25℃ (N2) 75.6Ω (±20%) AT 25℃

2) INDUCTANCE (電感量)
(N1) 2mH(±20%) AT 1KHz 0.25V (N2) 600mH(±20%) AT 1KHz 0.25V

3) WIRE & TURNS (綫徑及圈數)
(N1) Ø0.17mm x 47Ts (N2) Ø0.10mm x 940Ts

4) INSULATION RESISTANCE (絕緣電阻)
COIL TO COIL AND TO CORE: DC500V 100mΩ (MIN.)

5) DIELECTRIC STRENGTH (耐壓強度)
PRI TO CORE, SEC TO CORE: AC500V 0.5mA FOR 1 SECOND

Prepared By (編制): 鍾倩儀 Approved By (審批): 張玉有

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松興達有限公司
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Rev (版本): A DCC NO. (文件編號): BW-SPC-ENG-734 Date (日期) : Sep. 26, 2005 Page (頁數): 1/1

SAMPLE TEST RECORD (樣品測試記錄)

T.O (致): AUTOMATIC					
TYPE (型號): EI-19			PART NO. (編號): BW-0586B		
	DC RESISTANCE (直流電阻)		INDUCTANCE AT 1KHz 0.25V (電感量)		DIELECTRIC STRENGTH (耐壓強度)
	N1	N2	N1	N2	
1	1.03Ω	72.6Ω	2.35 mH	643 mH	O.K.
2	1.04Ω	73.6Ω	2.39 mH	682 mH	O.K.
3	1.03Ω	73.5Ω	2.38 mH	674 mH	O.K.
4	1.04Ω	71.9Ω	2.22 mH	634 mH	O.K.
5	1.03Ω	73.8Ω	2.38 mH	671 mH	O.K.
6	1.04Ω	73.4Ω	2.37 mH	680 mH	O.K.
7	1.03Ω	72.4Ω	2.37 mH	673 mH	O.K.
8	1.04Ω	74.6Ω	2.35 mH	665 mH	O.K.
9	1.03Ω	71.5Ω	2.20 mH	625 mH	O.K.
10	1.03Ω	74.2Ω	2.35 mH	661 mH	O.K.

Prepared By (編制): 伍

Approved By (審批): 瑞玉何

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MATSUTA CO., LTD.
Fax No.852-2754 5674
852-2796 3530
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SAMPLE TEST RECORD (樣品測試記錄)

TO (致): AUTOMATIC

TYPE (型號): EI-19 PART NO. (編號): BW-0586B

	DC RESISTANCE (直流電阻)		INDUCTANCE AT 1KHz 0.25V (電感量)		DIELECTRIC STRENGTH (耐壓強度)
	N1	N2	N1	N2	
1	1.02Ω	69.9Ω	1.97mH	634mH	O.K.
2	1.01Ω	70.7Ω	2.08mH	666mH	O.K.
3	1.02Ω	70.4Ω	2.03mH	658mH	O.K.
4	1.02Ω	70.1Ω	2.08mH	656mH	O.K.
5	1.02Ω	70.1Ω	1.92mH	625mH	O.K.
6	1.02Ω	69.2Ω	2.13mH	692mH	O.K.
7	1.03Ω	69.8Ω	1.86mH	597mH	O.K.
8	1.02Ω	70.4Ω	1.94mH	616mH	O.K.
9	1.02Ω	69.5Ω	1.94mH	598mH	O.K.
10	1.02Ω	69.4Ω	1.98mH	640mH	O.K.

Prepared By (編制): 鳳娟

Approved By (審批): 玉何

MATSUTA CO., LTD.

FLAT 15, 10/F, BLK B, TONIC IND. CTR, 19 LAM HING ST, KOWLOON BAY, HONG KONG.
TEL : (852) 2796 6693 FAX : (852) 2796 3530 , 2754 5674 E-MAIL : matsuta@matsuta.com.hk
旺興達有限公司 香港九龍灣臨興街 19 號同力工業中心 B 座 10 字樓 15 室

To: Automatic Manufacturing Ltd.
AML Medical Devices Ltd.
15/F., Blk B, Veristrong Ind. Centre,
36 Au Pui Wan St.,
Fotan, Hong Kong

Declaration

We, the undersigned, herewith declare in regard to the European Directives

2002/95/EC (ROHS) and
2002/96/EC (WEEE)

that in our products sold to Automatic Manufacturing Ltd. the six banned hazardous substances namely:

1. Lead,
2. Mercury,
3. Cadmium,it
4. Hexavalent Chromium,
5. Polybrominated Biphenyls (PBB)
6. Polybrominated Diphenyl ether (PBDE)

are not contained . (In addition, our products are also complied with the WEEE regarding the regulations of the waste Electrical and Electronic Equipment accordingly.)

We also declare to mark our products (or inner cartons) with immediate effect with:

Manufacturing date (format = dd/mm/yy)

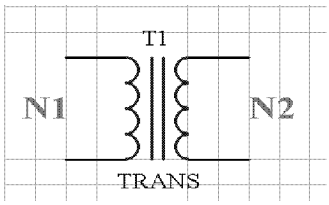
in a visible, legibly and indelibly way.

MATSUTA CO., LTD. 旺興達有限公司

旺興達 2007. 1. 19 伍立成

Signature and company chop

Place and date



Transfo

Test Item / NO.		Primary Side O.D.	Primary Side Turns	Secondary Side O.D.	Secondary Side Turns
AML BW0586B	1	0.17mm	47	0.1mm	940
	2				
	3				
	4				
Viamed Sample	1	0.3mm	45	0.1mm	844
	2				
	3				
	4				
	5				

Maximum output voltage cross check

	Viamed Transformer	AML Transformer (BW0586B)	AML Tran
Viamed PCBA (Transistor BD131)	117.5V	100V	
AML PCBA (with transistor BD237G)	94V	84V	

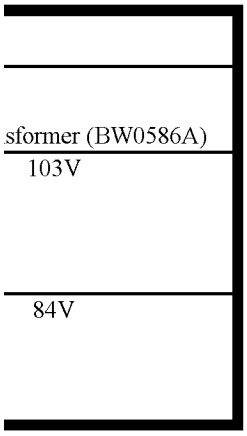
Vp-p Measured by Agilen

rmer Test

DC Resistance (ohm)		LCR Inductance/Resistance at 1khz 0v	
N1	N2	N1 (mH/ohm)	N2 (mH/Kohm)
1.24	70.1	2.0525/10.63	836.28/4.022
1.12	69.47	2.0761/10.18	846.89/3.904
1.16	69.72	2.0851/10.49	849.09/3.989
1.14	71.1	2.0306/10.53	828.60/4.037
0.53	74.28	2.2624/9.641	674.99/2.926
0.52	77.35	2.2783/9.223	699.15/2.833
0.52	75.47	2.3367/10.13	691.28/3.076
0.56	74.3	2.5507/10.53	750.70/3.221
0.51	74.9	2.4185/10.39	745.75/3.279

DC resistance measured by agilent DMM

Inductance/AC resistance measured by Philips LCR meter



t DSO

Subject : ´ð¸´: Transformer test of MicroStim
Date : Tue, 14 Mar 2006 12:59:00 +0000
Linked to : stephenng@automatic.com.hk
From : stephenng@automatic.com.hk (By way of helen.lamb@viamed.co.uk)
To : JSLAMB (John Lamb) <GoldMine User>

Dear John,

We have received the two newly requested transformers from our vender this week, However, the voltage still lower than 90V , it makes us confused , we are still checking with our vender make sure the samples are the latest one. Will let you know after more investigation.

By the way , I heard from the marketing colleague, the ROHS equipment for medical product has 2 -5 years exemption, As your don't want to modify the circuit to compensate the lower gain of BD237G , is it possible to use the original BD131 before this problem solved?

Best regards,
Stephen Ng

> ----ÔÊ¼ÓÊ¼þ----
> ·¢¼þÈË: stephenng@automatic.com.hk
> ·¢ËÍÊ±¼ä: 2006Äê2ÔÂ13ÈÕ 12:14
> ÊÕ¼þÈË: 'John Lamb'
> ³ËÍ: robertham@automatic.com.hk; khhui@automatic.com.hk
> Ö÷Ìâ: Transformer test of MicroStim
>
> Dear John,
>
> I had back to work on last Friday,
>
> We had take apart several transformer sample of both yours and ours and
> compared them as shown on the table attached.
>
> The main difference is the wire gauge of the transformer our vender
> duplicated, the primary side is 0.17mm and your sample is 0.3mm, that
> might be the one of the cause of making the exciting current lower.
>
> The RoHS alternative , BD237G make the situation worse, The output
> voltage drops to about 10V by changing from BD131 to BD237G.
>
> I already asked out vender to urgently build two kind of samples for us
> to evaluate, the respective parameters are :
> 1. Primary 0.3mm x45 turns ,Secondary 0.1mm x 980 turns
> 2, Primary 0.3 mm X 47 turns , Secondary 0.1 mm X 1140 turns
>
> We add secondary turns about 10% to compensate the Hfe drop in BD237G.
>
> I wish we can get the sample by next week, will keep you update once
> available.
>
> Regards,
>
> Stephen Ng
> << ÎÄ¼þ: Microstim Transfomer comparison.xls >>

Subject : Transformer test of MicroStim
Date : Tue, 14 Feb 2006 10:01:00 +0000
Linked to : stephenng@automatic.com.hk
From : stephenng@automatic.com.hk (By way of catchall@viamed.co.uk)
To : JSLAMB (John Lamb) <GoldMine User>

Dear John,

I had back to work on last Friday,

We had take apart several transformer sample of both yours and ours and compared them as shown on the table attached.

The main difference is the wire gauge of the transformer our vender duplicated, the primary side is 0.17mm and your sample is 0.3mm, that might be the one of the cause of making the exciting current lower.

The RoHS alternative , BD237G make the situation worse, The output voltage drops to about 10V by changing from BD131 to BD237G.

I already asked out vender to urgently build two kind of samples for us to evaluate, the respective parameters are :
1. Primary 0.3mm x45 turns ,Secondary 0.1mm x 980 turns
2, Primary 0.3 mm X 47 turns , Secondary 0.1 mm X 1140 turns

We add secondary turns about 10% to compensate the Hfe drop in BD237G.

I wish we can get the sample by next week, will keep you update once available.

Regards,

Stephen Ng

Dear John,

We are sorry to hear about it. Please accept our condolence.

Please note the sample (using old transformer) that you received was the one that we UPS to you on Jan 25th (before the Chinese New Year). Stephen has already arranged new transformer samples to solve the issue. Please read the e-mail attached. We expect to make three more ES samples (with improved transformers) and send them over to you next week. So for the moment do not worry too much. Thanks.

Regards, Robert

-----Original Message-----
From: John Lamb [mailto:jsl@viamed.co.uk]
Sent: Wednesday, February 22, 2006 9:30 PM
To: Robert Ham
Subject: re[2]: Viamed - ES samples shipment

Dear Robert,
Sorry for the delay.
My mother died while I was out of the UK and so life has been extremely hectic for me since I returned.

I have today received your samples. They may have been in Viamed several days.

Tomorrow we hoope to try them in our existing Microstims and see what happens.
I will be in touch as soon as I have any results.

Kind regards

John S Lamb
Managing Director - Viamed Ltd.
http://www.viamed.co.uk
Email john.lamb@viamed.co.uk
Tel: +44 (0)1535 634542
Fax: +44 (0)1535 635582

VIC is coming soon...