

## ADSL Transformer EX-1030S

### Features

- 1>.Designed for use with ADI'S AD20MSP910 IC Chip
- 2>.Designed to meet Supplementary Insulation Requirements of IEC950 for 250 VAC Working Voltage
- 3>.Good Total Harmonic Distortion Characteristics  
Optimized Design for Size and Performance  
Customization Available
- 4>.Available in Tape and Reel
- 5>.232<sup>o</sup>C Peak infrared reflow temperature rating
- 6>.Cross reference to Pulse B2032

### Specifications

Designed to reflect 100 ohms on the PRI with 100 ohms on the SEC

D.C. Resistance 20<sup>o</sup>C : (1-3): 1.10 ohms ±10% (2-4): 1.50ohms±10%  
(10-8): 1.29ohms±10% (9-7): 1.29ohms±10%

Longitudinal Balance: 40 dB min., @25kHz - 1.1 MHz

Frequency Response: ±1.0 dB , 30 kHz - 1.1 MHz

Insertion Loss: 0.5 dB max. @ 100 kHz

Dielectric Test: 1875 VAC 0.5mA 1sec , PRI - SEC

Inductance: 5.0 mH ±5%, 10 kHz, 1.0 VAC, 1-4(tie 2+3), Ls

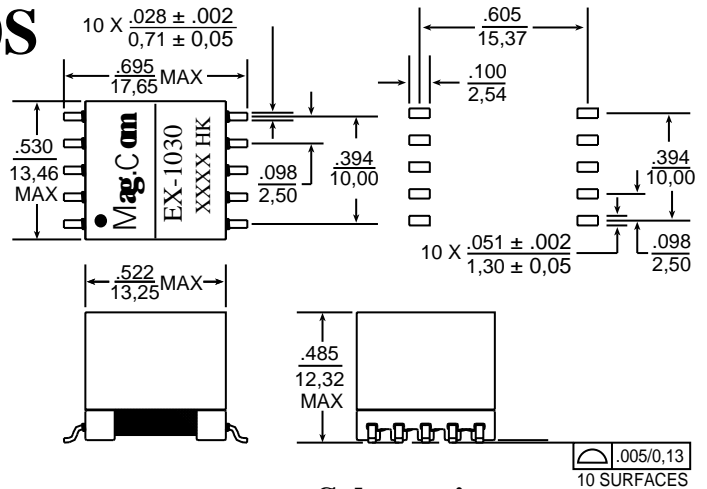
Leakage Inductance: 18 uH max, 100 kHz, 100 mVAC,  
1-4(tie 2+3, 8+9, 7+10), Ls

THD(Linearity) : -80dB @30KHZ,-60dB @300KHZ

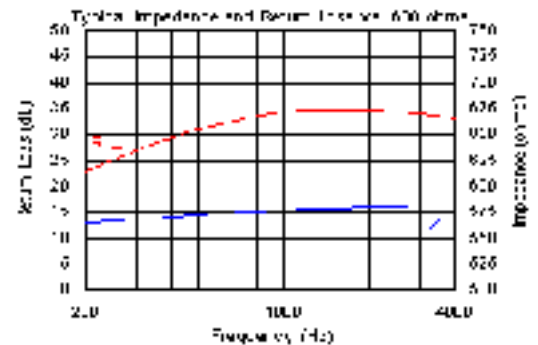
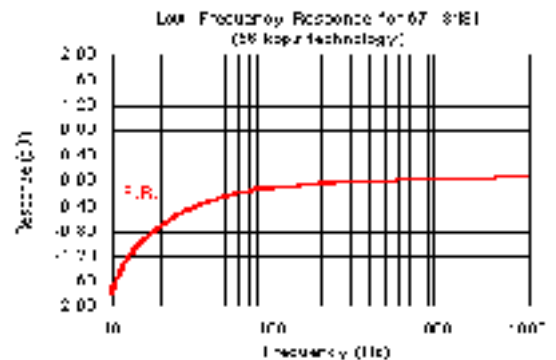
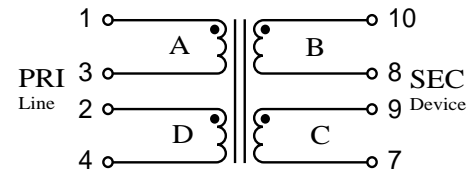
Turns Ratio:

(10-8):(9-7) = 1:1 ±1%

(10-7):(1-4) = 1:1, tie (2+3, 8+9), ±1%



### Schematic

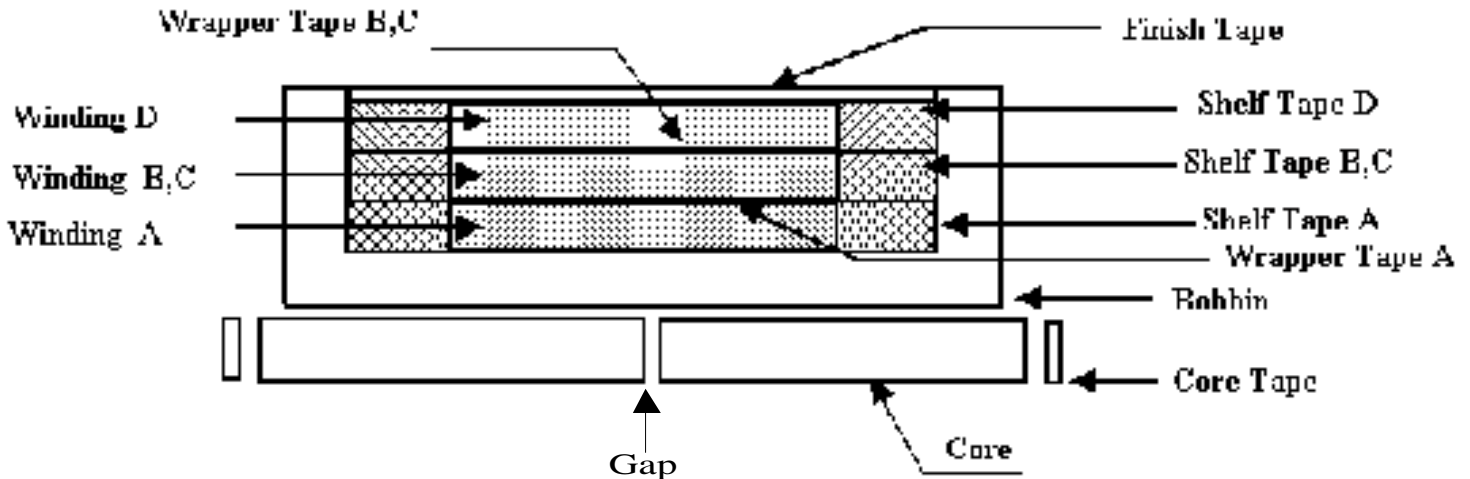


Scale:Do not scale DWG	Unspecified tolerance		Title	ADSL TRANSFORMER
Unit :inch/mm	.x +/-	.xx +/-	Unisen P/N	EX-1030S
DWG BY :	.xxx+/- .010/0.25	+/-	Part NO.	N/A
CHK BY :			DWG NO.	E00019
Appro. BY :			Sheet 1 of 2	REV.

## ADSL Transformer EX-1030S

Winding	A	B	C	D
Barrel				
Shelf	Σ1>5(2X2L)	←Σ1>5(2X4L)→		Σ1>5(2X2L)
Crossover				
Magnetwire	6	6	6	6
Turns	Σ2> 50T	←Σ3>50T Bifi→		Σ2> 50T
Hold Down				
Wrapper	3(2L)	←3(2L)→		
Finish				3(2L)

- Σ1> Apply shelf tape against each bobbin flange.
- Σ2> Wind wires across the bobbin in 2 even layers.
- Σ3> Wind wires across the bobbin in 4 even layers.
- Σ4> Wires must be off of shelves before they enter the core window area. Shelves 1.5mm form core.



### Materials:

1. Bobbin: EP13 SMD 10pin 1sec
2. Core: EP13  $U_i=10000$   $A_l=500nH/T^2$
3. Tape: PZ-280 7.9mm WID for finishing and wrapping winding
4. Tape: PZ-280 7.0mm WID for wrapping core
5. Shelf tape: WF2901 1.4mm WID 0.15mmTH
6. Wire: Magnetic wire AWG#35 SGL 155<sup>o</sup>C
7. Varnish: #31-398