

# ISDN U-Interface Transformers

For both 2B1Q & 4B3T ISDN U-Interface Applications

Excellent Longitudinal Balance

Designed for use with leading Transceiver Chips

Meets key parameters of ANSI T1.601-1992

Isolation 2000V<sub>RMS</sub> Minimum

Higher Isolation Models Available

Electrical Specifications at 25°C

| Part Number | Turns Ratio<br>( $\pm 3\%$ ) | OCL <sup>1</sup> ±6%<br>Pri<br>(mH) | Line Side<br>Pins | <sup>1</sup> DCR<br>max.<br>( $\Omega$ ) | <sup>2</sup> DCR<br>max.<br>( $\Omega$ ) | DC<br>Bias<br>(mA) | Coding | Isolation<br>(V <sub>RMS</sub> ) | Schem.<br>Style |
|-------------|------------------------------|-------------------------------------|-------------------|------------------------------------------|------------------------------------------|--------------------|--------|----------------------------------|-----------------|
| T-13200     | 1:1                          | 22                                  | 2-11              | 6.0                                      | 7.0                                      | 60                 | 2B1Q   | 2000                             | A               |
| T-13201     | 1:1.5                        | 22                                  | 2-11              | 6.0                                      | 11.5                                     | 60                 | 2B1Q   | 2000                             | A               |
| T-13202     | 1:1.8                        | 22                                  | 2-11              | 6.0                                      | 13.5                                     | 60                 | 2B1Q   | 2000                             | A               |
| T-13203     | 1:2                          | 22                                  | 2-11              | 6.0                                      | 18.5                                     | 60                 | 2B1Q   | 2000                             | A               |
| T-13204     | 1:2.5                        | 22                                  | 2-11              | 6.0                                      | 28                                       | 60                 | 2B1Q   | 2000                             | A               |
| T-13205     | 1.50:1                       | 27.0                                | 5-7               | 10.0                                     | 5.0                                      | 60                 | 2B1Q   | 2000                             | B               |
| T-13216     | 1.50:1                       | 35.0                                | 5-7               | 10.0                                     | 5.0                                      | 60                 | 2B1Q   | 2000                             | B               |
| T-13226     | 1.32:1                       | 7.9                                 | 5-7               | 2.5                                      | 2.0                                      | 60                 | 4B3T   | 2000                             | B               |
| T-13227     | 1.65:1                       | 14.5                                | 5-7               | 3.0                                      | 2.0                                      | 80                 | 2B1Q   | 2000                             | B               |
| T-13229     | 1.60:1                       | 14.5                                | 5-7               | 3.5                                      | 3.0                                      | 60                 | 2B1Q   | 2000                             | B               |
| T-13230     | 1.50:1                       | 14.5                                | 5-7               | 3.0                                      | 2.0                                      | 60                 | 2B1Q   | 2000                             | B               |
| T-13231     | 2.0:1                        | 27.0                                | 5-7               | 7.0                                      | 3.0                                      | 80                 | 2B1Q   | 2000                             | B               |

<sup>1</sup>Line Side

<sup>2</sup>Device Side

## NOTE: (For All Parts)

OCL Tested @10 kHz / 700 mV,  
on Line Side  
pins 1&12 shorted for Schem. "A";  
pins 8&6 for Schem. "B."

Operating Temp. Range -40°C to +85°C

Primary is Line Side  
Secondary is Chip Side

## Surge Voltage Capability:

Metallic Voltage: 800 V peak, 10 / 700µs

Longitudinal Voltage: 2400 V peak, 10 / 560µs

## Longitudinal Balance (2B1Q Coding)

281 Hz to 40 KHz 55 dB min.  
> 40 KHz -20 dB / decade

## Longitudinal Balance (4B3T Coding)

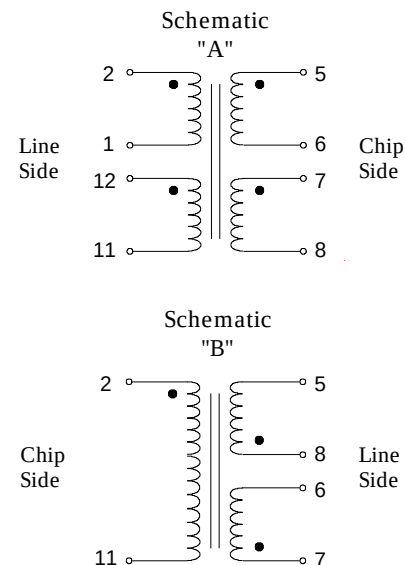
5 KHz 20 dB min.  
20 KHz to 150 KHz 40 dB min.  
1 MHz 36 dB min.

## Return Loss

10 and 25 KHz 20 dB min.

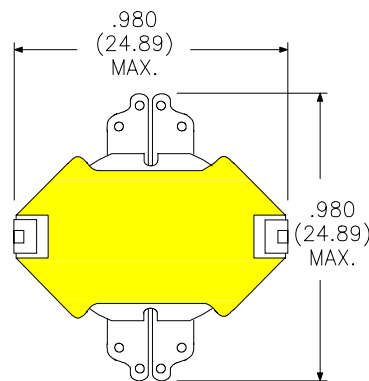
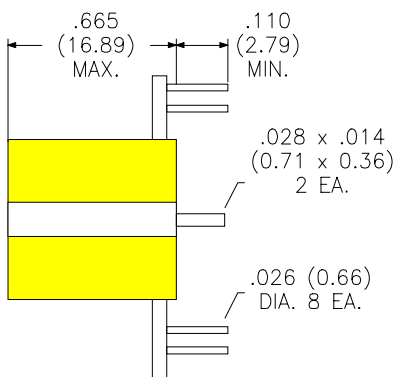
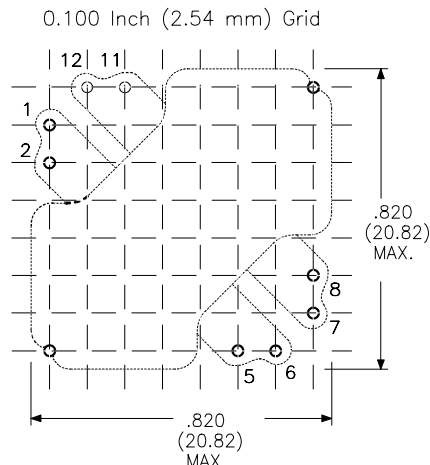
*For Complete Details including  
PDF Catalogs & Data Sheets on this  
and other product families visit*

[www.rhombus-ind.com](http://www.rhombus-ind.com)



| Manufacturer Name | I.C. Part Number | Transformer Part# |
|-------------------|------------------|-------------------|
| AMD               | AM 20902         | T-13226           |
| AMD               | AM2091 (C)       | T-13229           |
| AT&T              | T7262 / 63       | T-13230           |
| Mietec            | MTC 2071         | T-13226           |
| Mitel             | MT 8910          | T-13227           |
| Motorola          | MC145472         | T-13231           |
| National          | TP 3410          | T-13205           |
| Siemens           | PEB 2090         | T-13226           |
| Siemens           | PEB 2091 (C1)    | T-13229           |
| SGS-Thomson       | ST5410           | T-13205           |
| SGS-Thomson       | STLC5411         | T-13216           |

## Package Physical Dimensions in inches (mm)



## RM-8 Package

Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

ISDN-URM - 10/97