## T3/DS3/E3/STS-1 TRANSFORMERS

Dual SMT, Extended Temperature Range







Germany 49 7032 7806 0

USA 858 674 8100

- 📭 RoHS peak reflow temperature rating: 245°C
- Dual SMT package contains both transmit and receive transformers
- Operating temperature of -40°C to +85°C
- Models matched to leading transceiver ICs
- Return loss meets requirements of G.703
- 1500 Vrms isolation per UL1459 and UL195 0

| Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C |                      |     |                                |     |                |      |                             |    |                      |           |              |     |
|---|----------------------|-----|--------------------------------|-----|----------------|------|-----------------------------|----|----------------------|-----------|--------------|-----|
| RoHS-6<br>Compliant<br>Part<br>Number                                   | Turns Ratio<br>(±2%) |     | OCL Primary<br>@ 25°C<br>(±2%) |     | Լլ<br>(µH MAX) |      | C <sub>WW</sub><br>(pF MAX) |    | Isolation<br>Voltage | Package/  | Primary Pins |     |
|   | TX                   | RX  | TX                             | RX  | TX             | RX   | TX                          | RX | (Vrms MIN)           | Schematic | TX           | RX  |
| T3020NL   | 1:2CT                | 1:1 | 40                             | 100 | .120           | .120 | 10                          | 10 | 1500                 | BH/1      | 16-14        | 6-8 |
| T3023NL   | 1:1                  | 1:1 | 40                             | 40  | .110           | .110 | 10                          | 10 | 1500                 | BH/1      | 1-2          | 7-8 |

#### **Mechanical Schematics** BH 16 .350 $\frac{.505}{12,83}$ MAX 8,89 RAAAAAAA Pulse .050 .280<sub>MAX</sub> $\frac{.375}{9,53}$ MAX 1,27 .328 T30XXNL 8,33 7.11 Date Code 1,91 Country of Origin 6 8 $\frac{.029 \pm .001}{0,74 \pm 0,03}$ 2 3 .050 1,27 .350 SUGGESTED PAD LAYOUT 8,89 16 15 10 .010 .245 MAX 0,25 .004/0,10 $\frac{.018 \pm .002}{0,46 \pm 0,05}$ 0°-8° 16 SURFACES **Weight** ......1.0 grams 8 Tape & Reel .....600/reel 2 **Tray** ......40/tray Unless otherwise specified, all tolerances are $\pm$

Singapore 65 6287 8998

pulseelectronics.com

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

T655.D (04/12)

### T3/DS3/E3/STS-1 TRANSFORMERS

Dual SMT, Extended Temperature Range

### **Application Notes**

- 1. The transformers have been developed for use as transmit and receive transformers in T3 or DS3 links, using bit rates of 44.736Mbps and B3ZS coding on coaxial cable. The characteristics allow compliance with the Pulse templates of CCITT G.703 as well as ATT.A.34. The transformers are also suitable for E3 interface at 34.368Mbps with HDB3 coding or STS-1 applications, at 51.84Mbps according to Bellcore TA-NWT-000253.
- 2. Bandwidth specifications are typical in a 75 system. Return loss meets the requirements of G.703. Materials used in the products are UL94-V0 recognized. Products meet the requirements of IEC 695-2-2 (Needle Flame Test).
- **3.** For those applications requiring a 1:1 turns ratio on the transmit side, use only half of the secondary (2CT) winding.

- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. T323NLT).
- **5.** For other T3/DS3/E3/STS-1 Transformers, please see data sheets T606, T672, T663 and T668.
- **6.** Transformer Selection Guide Please contact Pulse Applications Engineering or see the Pulse web site Data Sheet Menu to find the latest Transformer Selection Guide.

#### For More Information

**Pulse Worldwide Pulse Europe Pulse South Asia Pulse North Asia Pulse China Headquarters Pulse North China** Headquarters 135 Joo Seng Road Einsteinstrasse 1 B402, Shenzhen Academy of Room 2704/2705 3F, No. 198 12220 World Trade Drive D-71083 Herren-Aerospace Technol-Super Ocean Finance #03-02 Zhongyuan Road PM Industrial Bldg. San Diego, CA berg ogy Bldg. (tr. Zhongli City 10th Kejinan Road 92128 Germany 2067 Yan An Road Singapore 368363 Taoyuan County 320 U.S.A. High-Tech Zone West Taiwan R. O. C. Shanghai 200336 Nanshan District Tel: 886 3 4356768 Shenzen, PR China Tel: 65 6287 8998 Fax: 886 3 4356823 (Pulse) China Tel: 858 674 8100 Tel: 49 7032 78060 518057 Fax: 65 6287 8998 Fax: 886 3 4356820 (FRE) Fax: 858 674 8262 Fax: 49 7032 7806 135 Tel: 86 755 33966678 Tel: 86 21 62787060 Fax: 86 755 33966700 Fax: 86 2162786973

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2012. Pulse Electronics, Inc. All rights reserved.



pulseelectronics.com

2

T655.D (04/12)

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Pulse:

T3020NL T3020NLT T3023NL T3023NLT