

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 10/100 Base-T Single Port LAN **Transformer Extended Temperature**

**ALAN-101** 

**RoHS/RoHS II Compliant** 



#### > FEATURES:

- Meet IEEE802.3 specification
- Extended Temperature (-40°C +85°C)
- ROHS peak reflow temperature rating 230°C
- 1500Vrms Hi-Pot

### > APPLICATIONS:

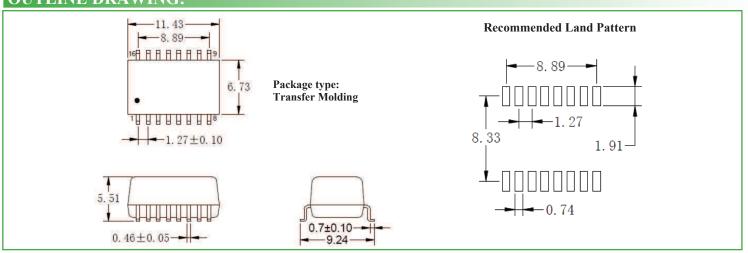
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- Symmetrical Tx & RX channles for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC Cards

#### > STANDARD SPECIFICATIONS:

### **Key Electrical Specifications @ 25°C**

| Parameters                            | Minimum  | <b>Typical</b> | Maximum | Units | Notes           |
|---------------------------------------|--|----------------|---------|-------|-----------------|
| Operating Temperature                 | -40  |                | +85     | °C    |                 |
| Storage Temperature                   | -40  |                | +85     | °C    |                 |
| Turn Ratio (± 2%)                     |  | 1CT:1CT        |         |       |                 |
| Inductance (OCL)                      | 350  |                |         | μН    | 100KHz/0.1V@8mA |
| Leakage Inductance (LL)               |  |                | 0.5     | μН    | 100KHz/0.1V     |
| Cw/w                                  |  |                | 30      | pF    | 100KHz/0.1V     |
| DC Resistance                         |  |                | 1.2     | Ω     |                 |
| Insertion Loss                        |  |                | -1.1    | dB    | 0.1-100MHz      |
| Return Loss                           |  | -18            |         | dB    | 30MHz           |
|                                       |  | -14            |         |       | 60MHz           |
|                                       |  | -11.5          |         |       | 80MHz           |
| Cross Talk                            |  | -45            |         | dB    | 30MHz           |
|                                       |  | -40            |         |       | 60MHz           |
|                                       |  | -35            |         |       | 100MHz          |
| Differential to Common Mode Rejection |  | -42            |         |       | 30MHz           |
|                                       |  | -37            |         | dB    | 50MHz           |
|                                       |  | -33            |         |       | 100MHz          |
| Common Mode Rejection                 | -30  |                |         | dB    | 1-100MHz        |
| Hi-Pot                                | 1500Vrms/0.5mA/60Sec or<br>1650Vrms/0.5mA/2Sec |                |         |       |                 |

### **OUTLINE DRAWING:**



ABRACON IS ISO9001:2008 CERTIFIED



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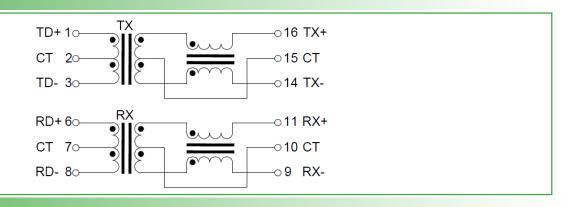
# 10/100 Base-T Single Port LAN Transformer Extended Temperature

**ALAN-101** 

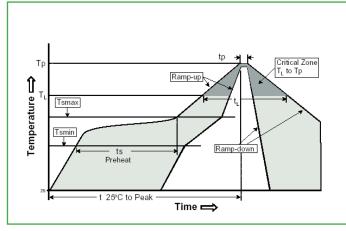
**RoHS/RoHS II Compliant** 



### **SCHEMATIC:**

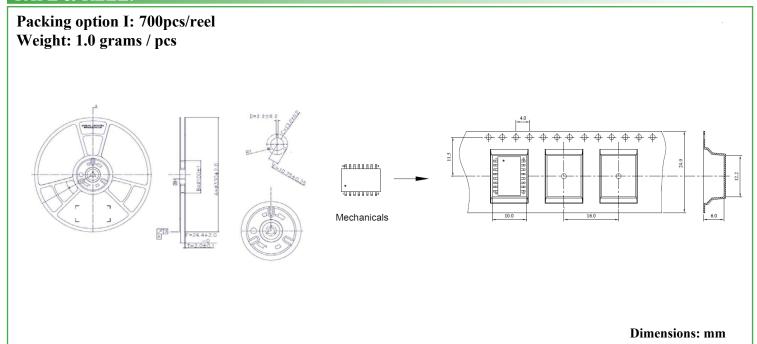


### **REFLOW PROFILE:**



| Profile Feature                       | Pb-Free Assembly |  |  |
|---------------------------------------|------------------|--|--|
| Average Ramp-Up Rate                  | 3°C /second max. |  |  |
| (Ts <sub>max</sub> to Tp)             |                  |  |  |
| Preheat                               |                  |  |  |
| -Temperature Min (Ts min)             | 100°C            |  |  |
| -Temperature Max (Ts <sub>max</sub> ) | 150℃             |  |  |
| -Time (ts min to ts max)              | 60-120 seconds   |  |  |
| Time maintained above:                |                  |  |  |
| -Temperature (T <sub>L</sub> )        | 183℃             |  |  |
| -Time (t <sub>L</sub> )               | 60-150 seconds   |  |  |
| Peak/Classification Temperature (Tp)  | 230±5°C          |  |  |
| Time within 5°C of actual Peak        | 10-30 seconds    |  |  |
| Temperature (tp)                      |                  |  |  |
| Ramp-Down Rate                        | 6°C /seconds max |  |  |
| Time 25°C to Peak Temperature         | 8 minutes max.   |  |  |

#### **►** TAPE & REEL:



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