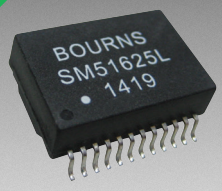


*RoHS COMPLIANT



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Features

- Compliant with IEEE802.3 standards
- Designed for 10/100/1000 Base-T and PoE++
- PoE up to 1.2 ADC per center tap
- RoHS compliant*

Applications

- LAN
- Ethernet
- Power over Ethernet - PoE+

SM51625EL LAN 10/100/1000 Base-T (PoE++) Transformer

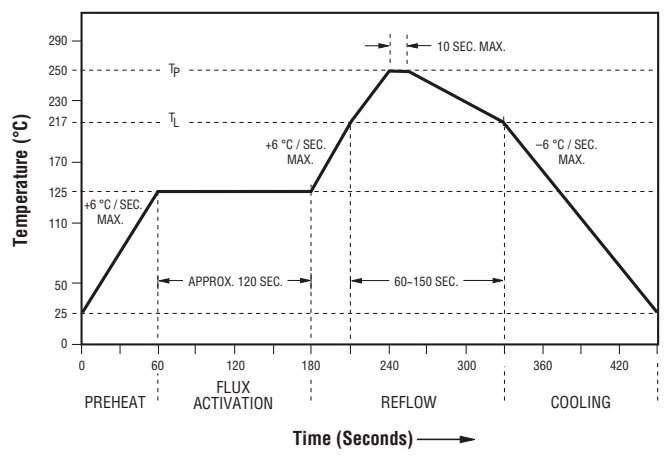
Electrical Specifications @ 25 °C

Turns Ratio (TD:MX) $\pm 5\%$ 1CT:1CT
 OCL (@100 kHz, 0.1 V, 28 mA, DC Bias) 80 μ H min.
 Leakage Inductance (TD, MX Short) @ 100 kHz, 0.1 V 0.5 μ H max.
 DCR (TD): 1.4 ohms max.
 C_{ww} (TD to MX) @ 100 kHz, 0.1 V 25 pF typ.
 Hi-Pot (Pri to Sec) 1500 Vrms, 1 mA, 60 seconds
 Insertion Loss (TD:MX)
 0.3 to 1 MHz -1.1 dB max.
 1 to 65 MHz -0.8 dB max.
 65 to 100 MHz -1 dB max.
 Return Loss (TD, MX w/100 Ω load)
 1 to 40 MHz -16 dB min.
 40 to 100 MHz -10+20*Log₁₀(f/80 MHz) dB min.
 Cross Talk (Between Each Channel)
 1 to 30 MHz -41 dB min.
 30 to 60 MHz -37 dB min.
 60 to 100 MHz -33 dB min.
 Common Mode Rejection (TD:MX)
 0.3 to 100 MHz -30 dB min.
 PoE++ Current Up to 1.2 ADC per center tap
 Operating Temperature Range -40 °C to +85 °C
 Storage Temperature Range -55 °C to +125 °C

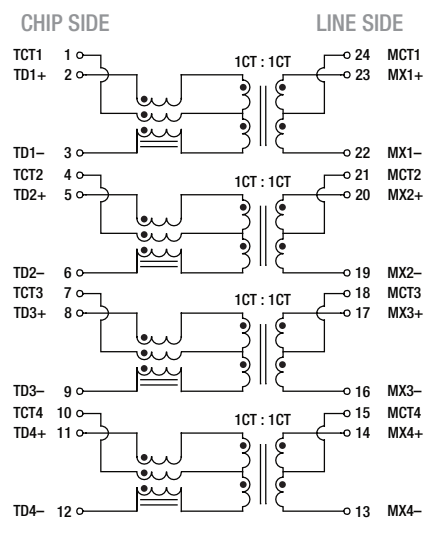
Packaging Specifications

Tape & Reel 350 pcs./reel

Reflow Solder Profile



Electrical Schematic



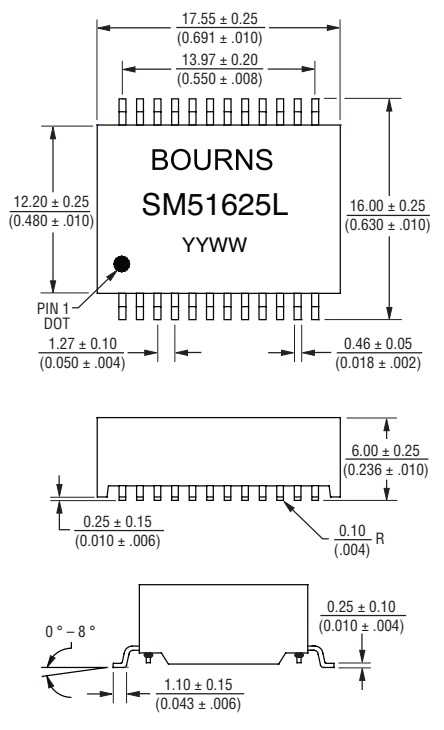
How To Order

Model SM51625 E L
 Packaging E = Tape and Reel (350 pcs./reel)
 Termination L = Tin (RoHS Compliant)

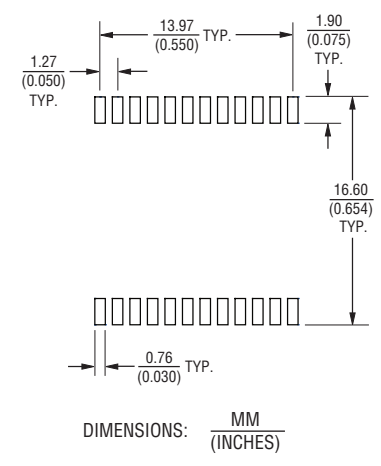
Environmental Specifications

Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Product Dimensions



Recommended Layout

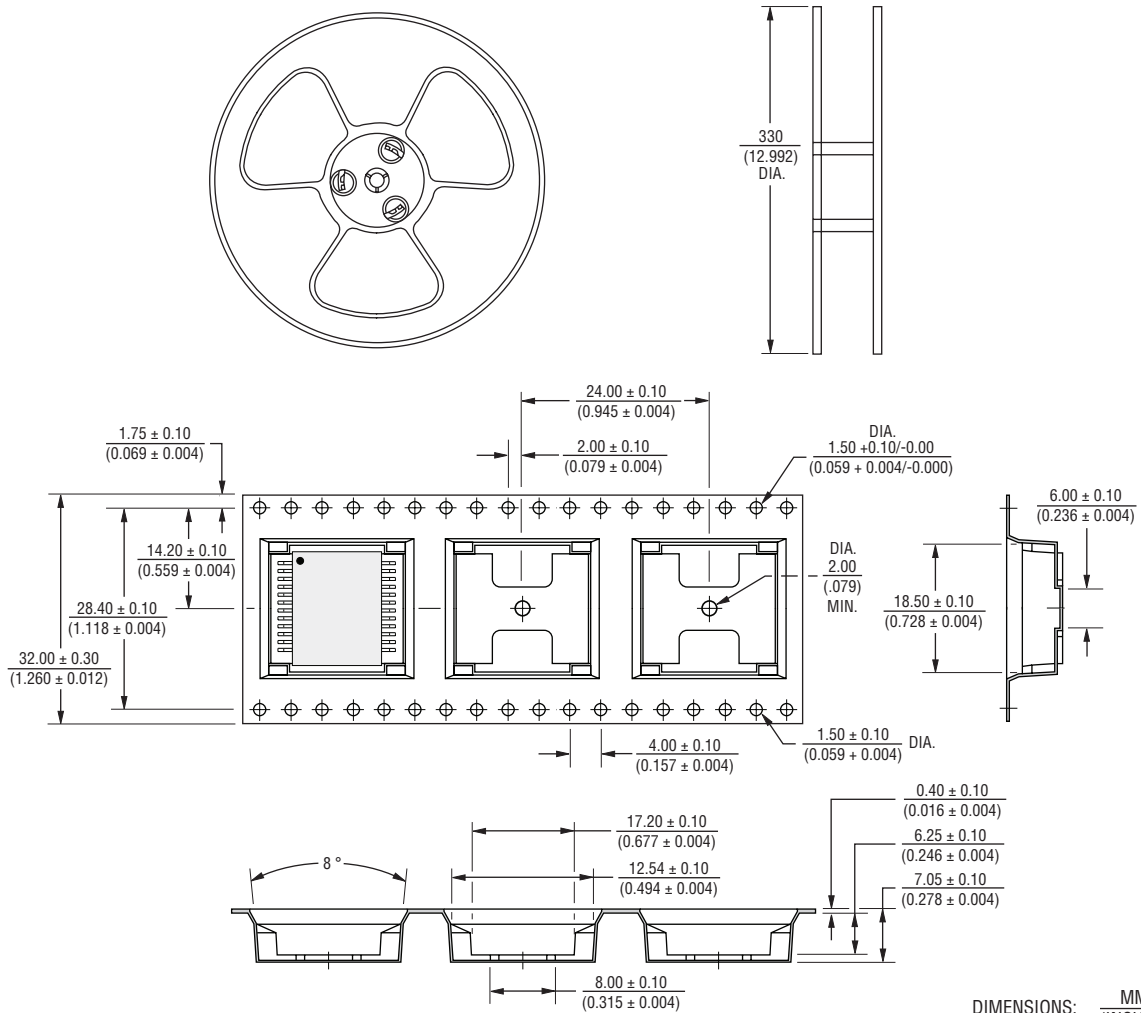


*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

SM51625EL LAN 10/100/1000 Base-T (PoE+) Transformer

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Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

USER DIRECTION OF FEED →
 QUANTITY: 350 PCS. PER REEL

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Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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REV. 05/18

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