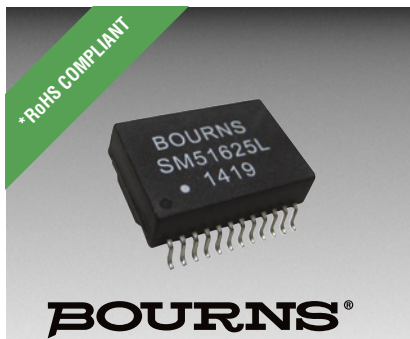




Features

- 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.
 Cww (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

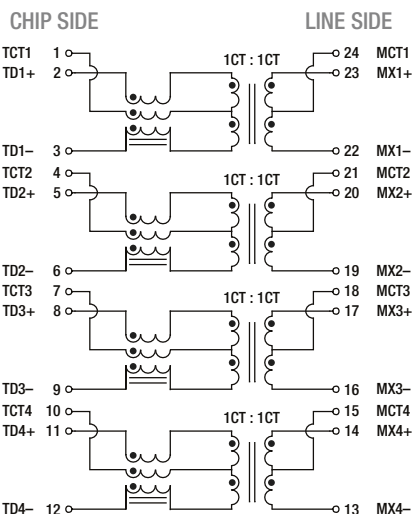
Storage Temperature Range

..... -55 °C to +125 °C

Packaging Specifications

Tape & Reel 350 pcs./reel

Electrical Schematic



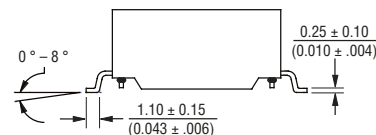
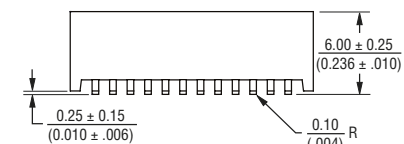
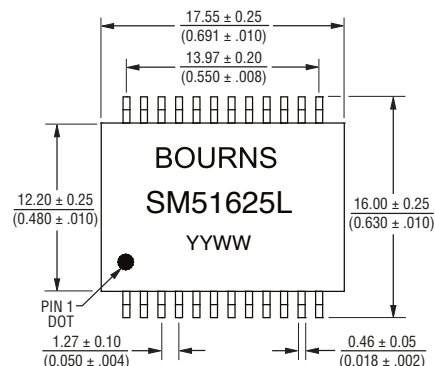
How To Order

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

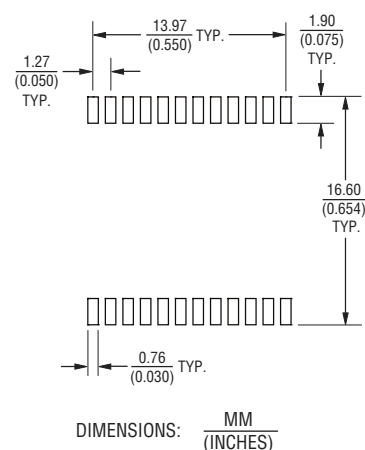
Environmental Specifications

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

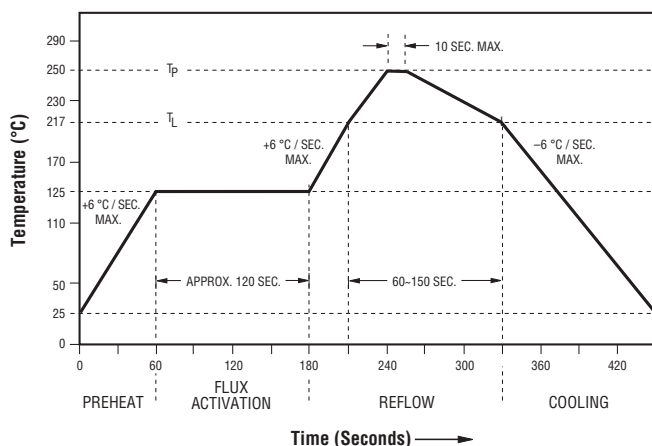
Product Dimensions



Recommended Layout



Reflow Solder Profile



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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Technical drawing of a 350 PCS. PER REEL film reel, showing dimensions in millimeters (mm) and inches (inches).

Top View Dimensions:

- Overall Width: 24.00 ± 0.10 (0.945 $\pm$ 0.004)
- Inner Width: 2.00 ± 0.10 (0.079 $\pm$ 0.004)
- Inner Diameter: 330 (12.992) DIA.

Side View Dimensions:

- Overall Height: $1.50 \pm 0.10 / -0.00$ (0.059 + 0.004 / -0.000) DIA.
- Inner Diameter: 2.00 (0.079) MIN.
- Inner Height: 18.50 ± 0.10 (0.728 $\pm$ 0.004)
- Outer Height: 6.00 ± 0.10 (0.236 $\pm$ 0.004)

Cross-sectional View Dimensions:

- Overall Width: 4.00 ± 0.10 (0.157 $\pm$ 0.004)
- Inner Width: 1.50 ± 0.10 (0.059 + 0.004) DIA.
- Inner Height: 0.40 ± 0.10 (0.016 $\pm$ 0.004)
- Outer Height: 6.25 ± 0.10 (0.246 $\pm$ 0.004)
- Inner Height: 7.05 ± 0.10 (0.278 $\pm$ 0.004)
- Inner Width: 17.20 ± 0.10 (0.677 $\pm$ 0.004)
- Inner Width: 12.54 ± 0.10 (0.494 $\pm$ 0.004)
- Inner Width: 8.00 ± 0.10 (0.315 $\pm$ 0.004)
- Angle: 8°

USER DIRECTION OF FEED

QUANTITY: 350 PCS. PER REEL

DIMENSIONS: MM (INCHES)

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