**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+

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**SM51625E LAN 10/100/1000 Base-T (PoE++) Transformer**

**Electrical Specifications @ 25 °C**
- **Turns Ratio (TD:MX)** ±5% 1CT:1CT
- **OCL** (@100 kHz, 0.1 V, 28 mA, DC Bias)........... 80 μH min.
- **Leakage Inductance (TD, MX)** Short
  - @100 kHz, 0.1 V........... 0.5 μH 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...........-39 dB min.
- **Common Mode Rejection (TD:MX)**
  - 0.3 to 100 MHz..................-30 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

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**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

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**Recommended Layout**

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**WARNING** Cancer and Reproductive Harm
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

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