

Features

- IEC 60335, IEC 60601-1 and IEC 60950-1 compliant
- Supplemental insulation
- 250 Vrms working voltage
- 4000 Vrms isolation voltage
- Expanded temperature range: -40 to +85 °C

- Operating altitude up to 4 km
- RoHS compliant*

Applications

- Industrial Ethernet controls
- Ethernet home appliances
- Medical equipment**

SM13100EL 10/100 Base-T Transformer

Electrical Specifications @ 25 °C

Inductance (100 kHz, 0.1 V, 8 mADC)	350 μ H min.
Leakage Inductance (TD & RD - TX & RX shorted, @100 kHz, 0.1 V)	0.5 μ H max.
DCR (TD & RD)	1200 m Ω max.
Turns Ratio (± 3 %)	
TD : TX	1CT:1CT
RD : RX	1CT:1CT
Insertion Loss (TD to TX & RD to RX, 1-100 MHz)	-2.0 dB max.
Return Loss (TD & TX & RD to RX w/ 100 Ω Load)	
1-30 MHz	-12 dB min.
30-45 MHz	-10 dB min.
45-60 MHz	-8 dB min.
60-80 MHz	-6 dB min.
Cross Talk (Between Each Channel) 1-100 MHz	-40 dB min.
CMR (TD to TX & RD to RX)	
30 MHz	-40 dB min.
60 MHz	-35 dB min.
100 MHz	-30 dB min.
DCMR (TD to TX & RD to RX) 500k - 100 MHz	-33 dB min.
Hi-Pot (Pri. to Sec.)	4800 VAC, 1 mA or 4000 VAC, 1 mA, 60 sec.
Operating Temperature Range	-40 °C to +85 °C
Storage Temperature Range	-40 °C to +125 °C
Moisture Sensitivity Level	1
ESD Classification (HBM)	N/A

Packaging Specifications

Tape & Reel 160 pcs./reel

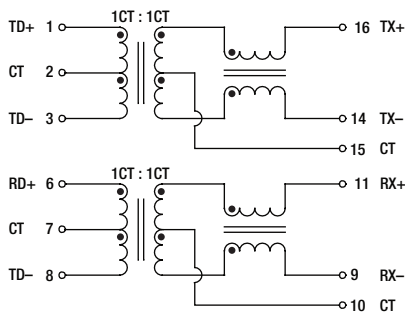
How To Order

Model **SM13100 E L**

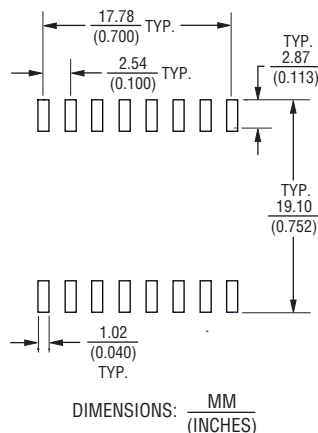
Packaging
E = Tape and Reel (160 pcs./reel)

Termination
L = Tin (RoHS Compliant)

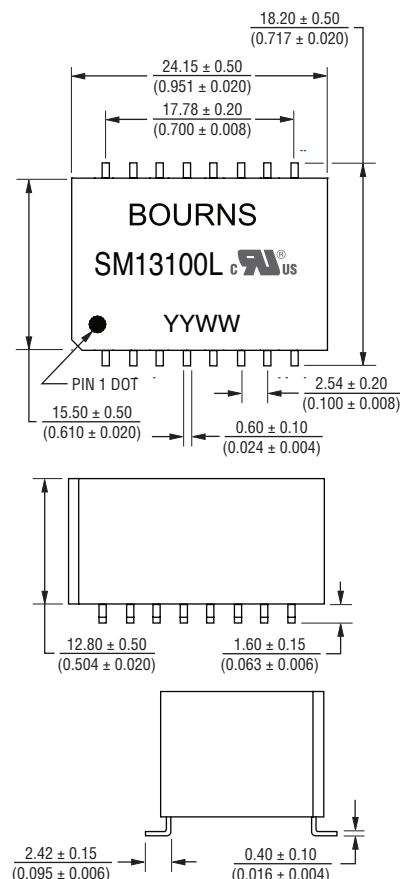
Electrical Schematic



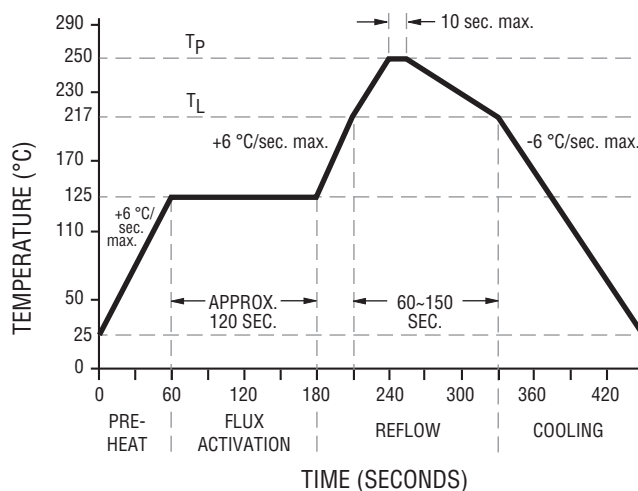
Recommended Layout



Product Dimensions



Solder Profile



*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

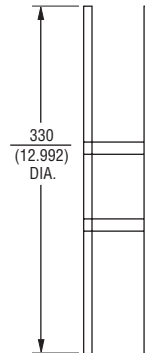
**Excluding life-saving, life-critical or life-sustaining applications. Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

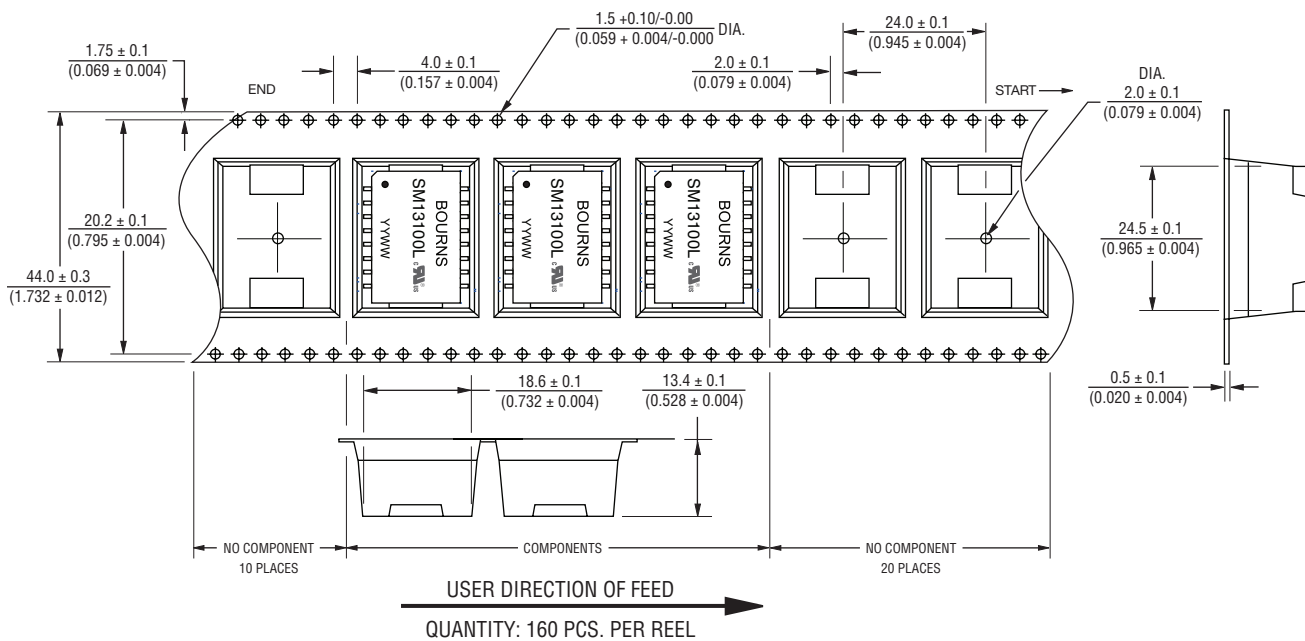
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BOURNS®

A line drawing of a film reel. The reel is circular with a central hub and two outer flanges. A film strip is shown emerging from the right side of the reel, looping around a small guide and then extending outwards. The film strip has several sprocket holes visible along its edge.



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



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