**SM42P01EL - 1 / 2.5 / 5 GbE Chip LAN Transformer Module**

**Features**
- IEEE 802.3 Ethernet compatible
- Compatible with 1G/2.5G/5G BASE-T
- PoE+
- Expanded temperature range: -40 to +85 °C
- RoHS compliant* and halogen free**

**Features**
- Inductance: 230 µH min. @ 100 kHz, 0.1 V
- Insertion Loss (TD-MX):
  - 1-100 MHz: -1.0 dB max.
  - 100-250 MHz: -2.0 dB max.
- Return Loss (TD-MX):
  - 1-40 MHz: -16 dB min.
  - 40 ≤ f ≤ 250 MHz: -(16-10 log (f/40)) min.
- Cross Talk:
  - 1 ≤ f ≤ 250 MHz: -35 dB min.
- DCMR (TD-MX):
  - 1-50 MHz: -30 dB min.
  - 50-150 MHz: -20 dB min.
  - 150-250 MHz: -15 dB min.
  - Hi-Pot: 1500 Vac, 60 s
- PoE+ Current: 600 mA
- Operating Temperature: -40 °C to +85 °C
- Storage Temperature: -40 °C to +85 °C

**Packaging Specifications**
- Tape & Reel: 800 pcs./reel

**Pin Layout**

**How To Order**

**Electrical Specifications @ 25 °C**

**Tape & Reel**

**TOLERANCES: 0.25 (.010) EXCEPT WHERE NOTED**

**DIMENSIONS:**
- **MM (INCHES):**
  - 0.8 (.031)
  - 1.0 (.039)
  - 1.65 (.065)
  - 2.75 (.108)
  - 3.75 (.148)
  - 4.1 (.161)
  - 6.75 (.266)
  - 10.3 (.406)

**DIMENSIONS:**
- **MM (INCHES):**
  - 16.5 (.650)
  - 20.4 (.80)
  - 23.0 (.90)

**DIMENSIONS:**
- **MM (INCHES):**
  - 0.65 (.026)
  - 1.0 (.039)
  - 1.65 (.065)

**DIMENSIONS:**
- **MM (INCHES):**
  - 4.1 (.161)

**DIMENSIONS:**
- **MM (INCHES):**
  - 0.64 (.025)

**DIMENSIONS:**
- **MM (INCHES):**
  - 1.00 (.039)

**DIMENSIONS:**
- **MM (INCHES):**
  - 7.00 (.276)

**DIMENSIONS:**
- **MM (INCHES):**
  - 10.77 (.424)

**DIMENSIONS:**
- **MM (INCHES):**
  - 11.00 (.433)

**DIMENSIONS:**
- **MM (INCHES):**
  - 1.00 (.039)

**DIMENSIONS:**
- **MM (INCHES):**
  - 11.00 (.433)
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Packaging Specifications

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>33.5 ± 2.0 (1.319 ± .079)</td>
</tr>
<tr>
<td>Height</td>
<td>2.0 ± 0.15 (0.079 ± .006)</td>
</tr>
<tr>
<td>Diameter</td>
<td>330 ± 2.0 (12.992 ± .079)</td>
</tr>
<tr>
<td>Height</td>
<td>2.5 (0.098)</td>
</tr>
<tr>
<td>Diameter</td>
<td>14.2 ± 0.1 (0.561 ± .004)</td>
</tr>
<tr>
<td>Height</td>
<td>10.60 ± 0.1 (0.417 ± .004)</td>
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<tr>
<td>Diameter</td>
<td>16.80 ± 0.1 (0.661 ± .004)</td>
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<tr>
<td>Height</td>
<td>16.00 ± 0.1 (0.630 ± .004)</td>
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<tr>
<td>Diameter</td>
<td>4.90 ± 0.1 (0.193 ± .004)</td>
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<tr>
<td>Height</td>
<td>1.50 ± 0.1 (0.059 ± .004)</td>
</tr>
</tbody>
</table>

Solder Profile

- Preheating: Tp (260 °C / 10 Sec. Max.)
- Soldering: Tp (260 °C / 10 Sec. Max.)
- Natural Cooling: 480 Sec. Max.
- Reflow Times: 3 Times Max.

Typical Part Marking

- MANUFACTURER’S TRADEMARK
- MODEL NO.
- DATE CODE

USER DIRECTION OF FEED
QTY: 800 PCS. PER REEL

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