**SMD Shielded Power Inductor**  PAHP20

**Dimensions: inch (mm)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>L</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.079-004/+.008</td>
<td>0.063-004/+0.008</td>
<td>0.038</td>
<td>0.019</td>
<td>0.038</td>
<td>0.091</td>
<td>0.031</td>
<td>0.039</td>
</tr>
<tr>
<td>(2.0 -0.1)/+0.2</td>
<td>(1.6 -0.1)/+0.2</td>
<td>(1.0)</td>
<td>(0.9)</td>
<td>(1.0)</td>
<td>(2.3)</td>
<td>(0.8)</td>
<td>(1.0)</td>
</tr>
</tbody>
</table>

**Features**

- Low Profile
- Magnetically Shielded Construction for power circuits using metallic magnetic material
- Compatible with high-density mounting
- RoHs Compliant and Halogen Free

**Electrical**

- Inductance Range: 24µH to 4.7µH
- Tolerance: ±20% over entire range
- Test Frequency: 1MHz
- Operating Temp: -40°C to +125°C
- MSL: Level 1
- \( I_{sat} \): The Current at which the Inductance will drop by 30% typically.
- \( I_{rms} \): The Current at which the Coil temperature will rise by approximately 40°C without core loss.

**Resistance to Soldering Heat**

- Pre-heating: 150°C, 1 min
- Solder: Sn96.5% Ag3% Cu0.5%
- Temperature: 245±5°C
- Flux for lead free: Rosin, 9.5%
- Dip time: 4-1 sec
- Depth: completely cover the termination

**Recommended PCB Layout**

**Physical**

- Packaging: 2000 pieces per 7 inch reel.
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Typical Performance Curves

- PAHP20-R24M
- PAHP20-R33M
- PAHP20-R47M
- PAHP20-R68M
- PAHP20-1R0M
- PAHP20-1R5M
- PAHP20-2R2M
- PAHP20-4R7M
**Packaging Information**

**Reel Dimension**

![Reel Dimension Diagram]

**Tape Dimension**

![Tape Dimension Diagram]

**Bottom View**

![Bottom View Diagram]

**Tearing Off Force**

The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

<table>
<thead>
<tr>
<th>Room Temp. (°C)</th>
<th>Room Humidity (%)</th>
<th>Room atm (hPa)</th>
<th>Tearing Speed 9 mm/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>5–35</td>
<td>45–85</td>
<td>860–1060</td>
<td>300</td>
</tr>
</tbody>
</table>

**Application Notice**

- **Storage Conditions**
  
  To maintain the solderability of terminal electrodes:
  2. Temperature and humidity conditions: Less than 40°C and 60% RH.
  3. Recommended products should be used within 12 months from the time of delivery.
  4. The packaging material should be kept where no chlorine or sulfur exists in the air.

- **Transportation**
  
  1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.