# Metal Alloy Multilayer High Power Chip Inductor

## Features
- Miniature ceramic chip inductors
- High current carrying in a compact 2.0 x 1.6mm footprint
- Low profile 1.0mm MAX for height restricted applications
- Up to 4.5A typ saturation current
- High inductance up to 4.7\( \mu \)H
- Wide operating temperature range -40°C ~ +125°C
- Shielded construction reduces EMI

## Applications
- IoT and IIoT
- Wearables
- Smart watches
- Hand-held devices
- Audio/video, cameras, and speakers
- Drones
- Medical monitoring
- Compact energy efficient lighting
- Battery operated devices
- DC/DC supplies for Bluetooth and RF modules
- High efficiency battery chargers
- High efficiency switch mode power supplies

## Options and Part Identification

![Options and Part Identification Diagram](image)

## Electrical Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Inductance Code</th>
<th>Inductance (( \mu )H)</th>
<th>Tolerance</th>
<th>DC Resistance (m( \Omega ))</th>
<th>Saturation Current (A)</th>
<th>Temperature Rise Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASMPM-0806-R47</td>
<td></td>
<td>0.47</td>
<td>±20%</td>
<td>4.0</td>
<td>4.50</td>
<td>3.60</td>
</tr>
<tr>
<td>ASMPM-0806-1R0</td>
<td></td>
<td>1.0</td>
<td>±20%</td>
<td>7.0</td>
<td>3.40</td>
<td>2.60</td>
</tr>
<tr>
<td>ASMPM-0806-1R5</td>
<td></td>
<td>1.5</td>
<td>±20%</td>
<td>110</td>
<td>2.80</td>
<td>2.10</td>
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<tr>
<td>ASMPM-0806-2R2</td>
<td></td>
<td>2.2</td>
<td>±20%</td>
<td>168</td>
<td>2.20</td>
<td>1.60</td>
</tr>
<tr>
<td>ASMPM-0806-3R3</td>
<td></td>
<td>3.3</td>
<td>±20%</td>
<td>225</td>
<td>1.90</td>
<td>1.40</td>
</tr>
<tr>
<td>ASMPM-0806-4R7</td>
<td></td>
<td>4.7</td>
<td>±20%</td>
<td>360</td>
<td>1.50</td>
<td>1.10</td>
</tr>
</tbody>
</table>

## Operating Temperature
-40°C ~ 125°C (including self-temperature rise)

## Storage Condition
-10°C ~ +40°C (tape & reel packaging), -40°C ~ +125°C (component)

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1501 Hidden Creek Lane Spicewood TX 78751
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales visit: www.abracon.com

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CERTIFIED

REVISED: 06.29.2018

ABRACON LLC
The Power of Linking Together

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METAL ALLOY MULTILAYER HIGH POWER CHIP INDUCTOR

ASMPM

2.0 x 1.6 x 1.0 mm

MSL = 1

RoHS/RoHS II Compliant

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MECHANICAL DIMENSIONS

<table>
<thead>
<tr>
<th>L</th>
<th>W</th>
<th>T</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 ± 0.2</td>
<td>1.6 ± 0.2</td>
<td>1.0 MAX</td>
<td>0.5 ± 0.3</td>
</tr>
</tbody>
</table>

REFLOW

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Temperature</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preheat</td>
<td>$T_{SMIN}$ to $T_{MAX}$</td>
<td>60 ~ 120 sec.</td>
</tr>
<tr>
<td>2</td>
<td>Reflow</td>
<td>$T_L$ 230°C</td>
<td>30 sec. MAX</td>
</tr>
<tr>
<td>3</td>
<td>Peak heat</td>
<td>$T_P$ 260°C</td>
<td>10 sec. MAX</td>
</tr>
</tbody>
</table>

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METAL ALLOY MULTILAYER HIGH POWER CHIP INDUCTOR

ASMPM

PACKING (TAPE & REEL: 3000 PCS/REEL)

<table>
<thead>
<tr>
<th>Ao</th>
<th>Bo</th>
<th>Ko</th>
<th>P</th>
<th>W</th>
<th>t</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.90</td>
<td>2.30</td>
<td>1.15</td>
<td>4.00</td>
<td>8.00</td>
<td>0.23</td>
<td>1.75</td>
<td>3.50</td>
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</table>

Dimension: mm