



# 深圳市佑驰电子有限公司

## Specification for Approval

产品名称: 一体系列电感

规格型号: HCMA-0420-XXX-M

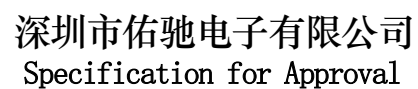
产品编号:

日 期: 2020-08-15

- 1、本承认书的内容更改需经过双方确认，任一方单独的修改均视为无效。
- 2、本承认书在送达客户后，请给予承认并即签回，如无签回下订单的，我司有权以此承认书标准生产，并表示购买方默认许可。

|  | 审核 | 制作 |
|--|----|----|
|  |    |    |

| 批准 | 审核 | 检验 |
|----|----|----|
|    |    |    |

[illegible]

**High Current, Power Inductors**  
**HCMA-0420-XXX-M Power Choke****Description**

- Halogen Free
- 125 °C maximum total temperature operation
- Powder iron core material
- Magnetically shielded, low EMI
- High current carrying capacity, Low core losses
- Inductance range from 0. 10  $\mu$ H to 10.0  $\mu$ H
- Current range from 2 .2 to 22 Amps
- Frequency range up to 5 MHz
- RoHS compliant

**Applications**

- Voltage Regulator Module (VRM)
- Multi-phase regulators
- Point-of-load modules
- Smart phone POL modules
- SSD modules
- Notebook regulators
- Battery power systems
- Graphics cards
- Data networking and storage systems

**Environmental Data**

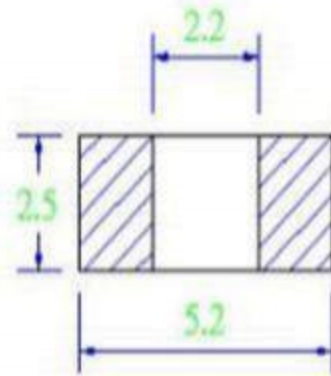
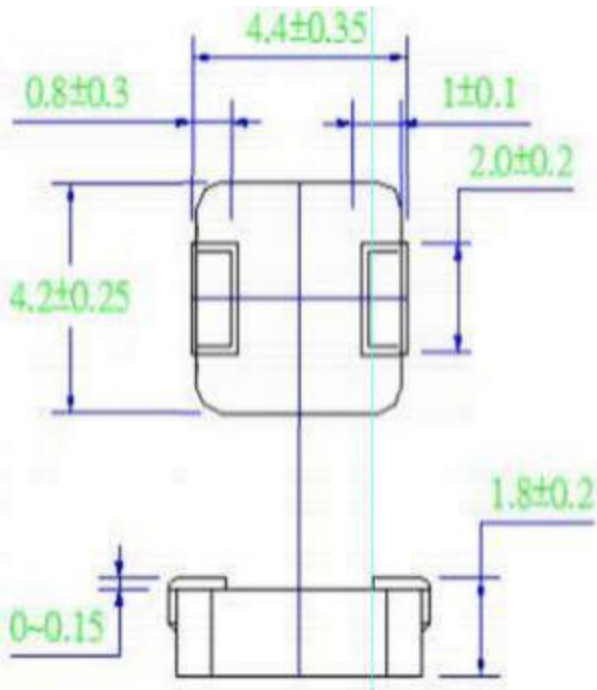
- Storage temperature range: -55 °C to +125 °C
- Operating temperature range: -55 °C to +125 °C (ambient plus self-temperature rise)
- Solder reflow temperature: J-STD-020 compliant

| Description        |   |   |   |                  |   |   |   |                      |   |           |   |
|--------------------|---|---|---|------------------|---|---|---|----------------------|---|-----------|---|
| HCMA-0420-1R0 -M   |   |   |   | 1.0μH            |   |   |   | ±20 %                |   |           |   |
| Model              |   |   |   | Inductance Value |   |   |   | Inductance Tolerance |   |           |   |
| Global Part Number |   |   |   |                  |   |   |   |                      |   |           |   |
| H                  | C | M | A | 0                | 4 | 2 | 0 | 1                    | R | 0         | M |
| Product Series     |   |   |   | Dimensions       |   |   |   | Inductance           |   | ValueTol. |   |

| Part Number     | Inductance        | DC Resistance |       | HeatingRatingCurrent | Saturation Current |
|-----------------|-------------------|---------------|-------|----------------------|--------------------|
|                 | L0 (μH)           | DCR (mΩ)      |       | Idc (A)              | Isat (A)           |
|                 | ±20 %, 1MHz, 0.1V | Typ           | Max   | Typ                  | Typ                |
| HCMA-0420-R10-M | 0.10              | 3.5           | 4.0   | 12.0                 | 22.0               |
| HCMA-0420-R22-M | 0.22              | 6.0           | 6.6   | 9.0                  | 12.5               |
| HCMA-0420-R47-M | 0.47              | 9.5           | 14.0  | 7.0                  | 9.5                |
| HCMA-0420-R56-M | 0.56              | 14.0          | 16.0  | 6.5                  | 10.0               |
| HCMA-0420-R68-M | 0.68              | 16.0          | 18.0  | 6.0                  | 9.0                |
| HCMA-0420-1R0-M | 1.0               | 24.0          | 27.0  | 4.5                  | 7.0                |
| HCMA-0420-1R2-M | 1.2               | 24.0          | 27.0  | 4.5                  | 7.0                |
| HCMA-0420-1R5-M | 1.5               | 38.0          | 46.0  | 4.0                  | 6.0                |
| HCMA-0420-2R2-M | 2.2               | 52.0          | 58.0  | 3.0                  | 5.0                |
| HCMA-0420-3R3-M | 3.3               | 74.0          | 87.0  | 2.5                  | 4.0                |
| HCMA-0420-4R7-M | 4.7               | 92.0          | 105.0 | 2.2                  | 3.0                |
| HCMA-0420-5R6-M | 5.6               | 107.6         | 115.0 | 2.0                  | 3.5                |
| HCMA-0420-6R8-M | 6.8               | 160.0         | 175.0 | 2.0                  | 2.5                |
| HCMA-0420-100-M | 10.0              | 256.0         | 282.0 | 1.6                  | 2.2                |
| HCMA-0420-200-M | 22.0              | 336.1         | 360.0 | 1.5                  | 1.8                |

#### Notes

1. All test data is referenced to 25 °C ambient
2. Operating temperature range - 55 °C to + 125 °C
3. Idc(A):DC current (A) that will cause an approximate  $\Delta T$  of 40 °C(reference ambient temperature is 25°C)
4. Isat(A) : DC current (A) that will cause L0 to drop approximately 30 %
5. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions.  
Circuit design , component placement , PWB trace size and thickness , airflow and other cooling provisions all affect the part temperature . Part temperature should be verified in the end applicat



Recommend Land Pattern Dimensions

**Marking**

The inductor is marked with a 3-digit code Example - -1.0  $\rightarrow$  1R0

Note : Using Ink for marking

