



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-1770-XXX-M

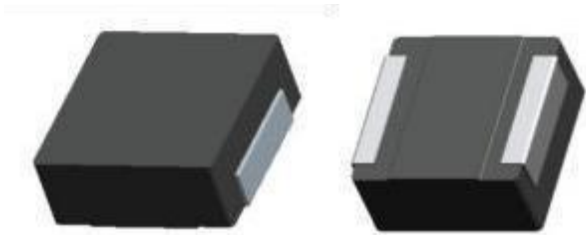
产品编号:

日期: 2026-04-15

- 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。
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核准	审核	制作
	Aaron	Ada

High Current, Power Inductors
HCMA-1770-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
- 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 D compliant

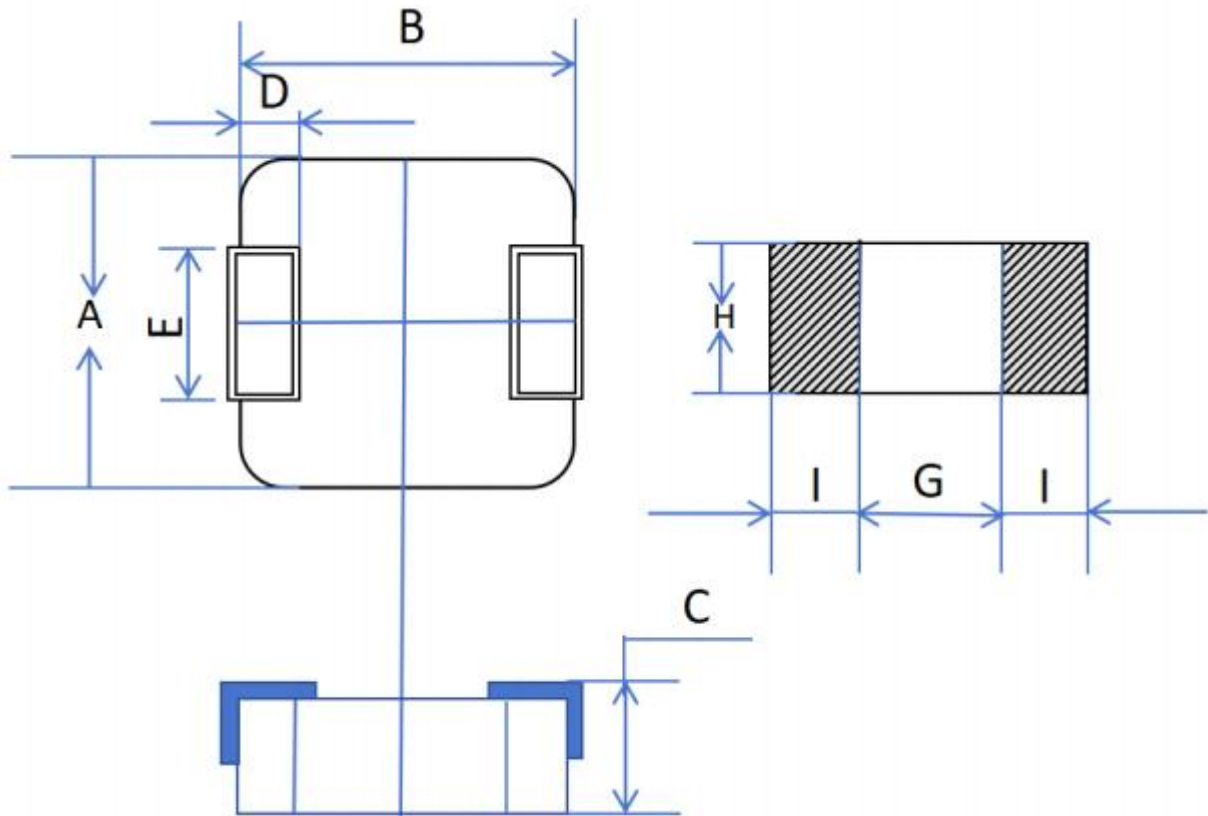
Description			
HCMA-1770-330-M	33.0 μH	±20 %	
Model	Inductance Value	Inductance Tolerance	
Global Part Number			
H C M A	1 7 7 0	3 3 0	M
Product Series	Dimensions	Inductance	Value Tol.

Part Number	Inductance	DC Resistance		HeatingRatingCurrent	Saturation Current
	L0 (μH)	DCR (m Ω)		Idc (A)	Isat (A)
	±20 %, 1MHz, 0.1V	Typ	Max	Typ	Typ
HCMA-1770-R68-M	0.68	1.1	1.5	30.0	50.0
HCMA-1770-1R0-M	1.0	1.5	2.5	28.0	45.0
HCMA-1770-1R5-M	1.5	1.8	3.0	26.0	40.0
HCMA-1770-2R2-M	2.2	2.1	3.5	25.0	36.0
HCMA-1770-3R3-M	3.3	3.0	5.0	19.0	28.0
HCMA-1770-4R7-M	4.7	4.7	6.0	18.0	26.0
HCMA-1770-6R8-M	6.8	5.4	7.0	15.0	21.0
HCMA-1770-100-M	10.0	9.5	12.0	14.0	17.0
HCMA-1770-150-M	15.0	14.0	17.0	12.0	15.0
HCMA-1770-220-M	22.0	23.0	26.0	9.0	11.0
HCMA-1770-330-M	33.0	28.0	32.0	8.0	10.0
HCMA-1770-470-M	47.0	40.0	45.0	7.0	9.0
HCMA-1770-680-M	68.0	78.0	85.0	6.0	7.5
HCMA-1770-101-M	100.0	98.0	105.0	5.0	6.5

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 ΔT of 40 °C(reference ambient temperature is25°C)
4. Isat(A) : DC current (A) that will cause L0 to dropapproximately30 %
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

•Dimensions-mm



A:	18.5MAX	B:	17.5MAX	C :	7.0MAX
D:	2.5±0.5	E:	11.8±0.3	G:	9.2Ref
H:	13.0Ref	I:	4.6Ref		

REFLOW PROFILE

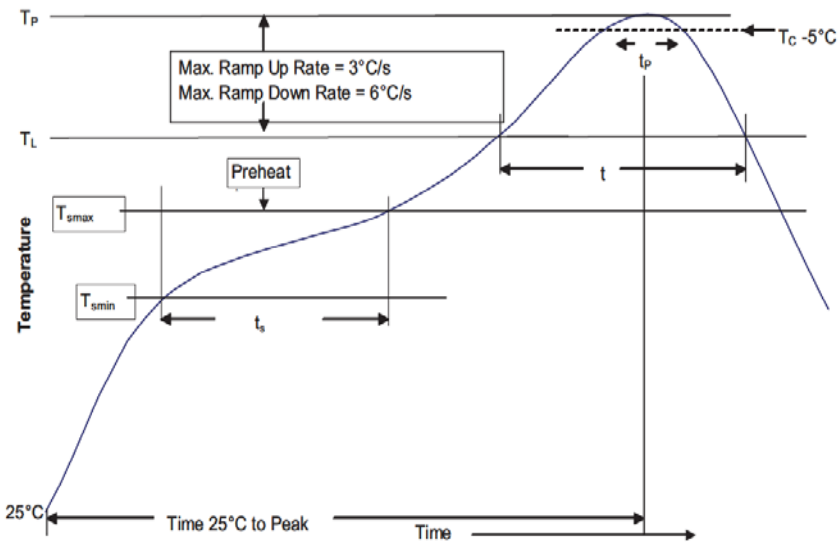


Table 1 - Standard SnPb Solder (T_C)

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥350
<2.5mm)	235°C	220°C
≥2.5mm	220°C	220°C

Table 2 - Lead (Pb) Free Solder (T_C)

Package Thickness	Volume mm ³ <350	Volume mm ³ 350 - 2000	Volume mm ³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Reference JDEC J-STD-020

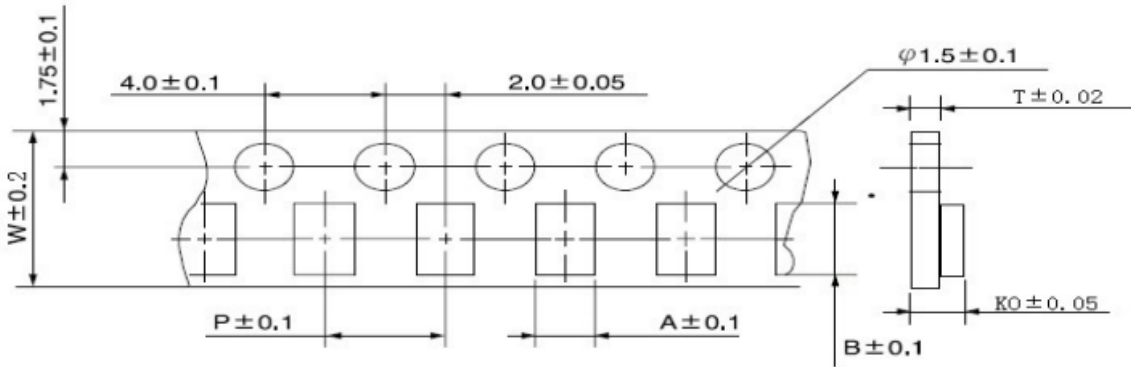
Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak		
• Temperature min. (T_{smin})	100°C	150°C
• Temperature max. (T_{smax})	150°C	200°C
• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p	3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60-150 Seconds	60-150 Seconds
Peak package body temperature (T_p)*	Table 1	Table 2
Time (t_p)** within 5°C of the specified classification temperature (T_C)	20 Seconds**	30 Seconds**
Average ramp-down rate (T_p to T_{smax})	6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature	6 Minutes Max.	8 Minutes Max.

* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

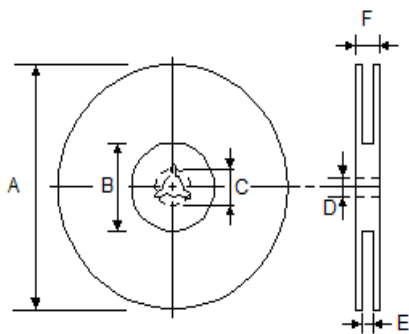
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

产品包装 Packaging

载带尺寸Tape Dimension(单位：毫米 Unit:mm)



A	B	K0	W	P	T
17.8	18.6	7.3	32	24	0.4



TYPE	A	B	C	D	E	F
33mm	330	100	21.0 ± 0.8	13.0 ± 1.0	32.0 ± 0.5	35.5 ± 2.0

包装数量 Packing quantity

Series	卷盘 REEL (PCS)	纸盒 BOX (PCS)	纸箱 Carton (PCS) (Size: 35.5*35.5*21.5cm)
1770	200	400	1000

每个内盒装两个卷轴，每个外箱装三个内盒。

