

SMD Power Inductor

Fixed Inductor for Surface Mounting

SPH4020 Series

Construction

- Metal alloy powder
- Shielded construction



Features

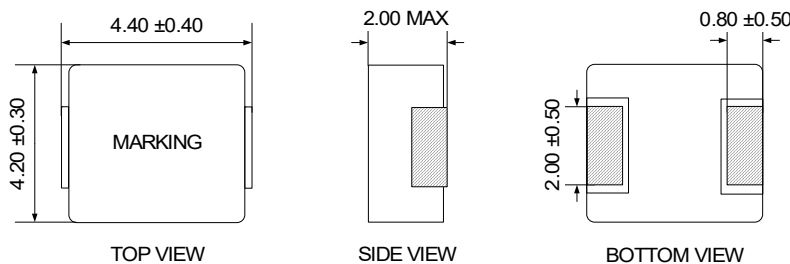
- Qualified to AEC-Q200
- Operating temperature -50 ~ +125°C (Including self temperature)
- Solder reflow temperature 260°C peak
- Low buzz noise
- High saturation current
- Suitable for lead-free reflow soldering



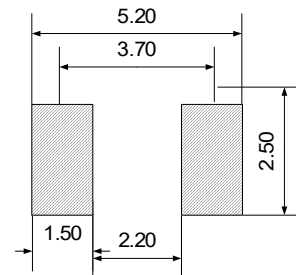
Applications

- Automotive / Noise filtering and filter chokes
- DC/DC converters
- Portable gaming devices / personal navigation systems
- multimedia devices
- Portable and devices

Dimensions (Unit:mm)



Recommended Land Pattern (Unit:mm)



Electrical Characteristics

Ordering code	Inductance (uH)	DCR (mΩ,MAX)	SRF (MHz,TYP)	Isat*1(A) MAX(TYP)	Irms*2(A) MAX(TYP)	Marking
SPH4020-R10M	0.10±20%	4.00	400.0	17.6(22.0)	11.2(13.0)	R10
SPH4020-R22M	0.22±20%	6.60	210.0	10.0(12.5)	8.20(9.50)	R22
SPH4020-R33M	0.33±20%	11.0	140.0	9.60(12.0)	8.60(10.0)	R33
SPH4020-R47M	0.47±20%	14.0	120.0	7.60(9.50)	6.65(7.50)	R47
SPH4020-R56M	0.56±20%	16.0	115.0	7.20(9.00)	6.10(7.00)	R56

※Test Equipment

*Inductance : MICROTTEST 6632 (100kHz, 1.0V)

*DCR Meter : ABM3245 (20mΩ~2MΩ)

*Bias Current : MICROTTEST 6632 + 6240

*SRF : Agilent HP8753ES

*Specifications subject to change without notice. Please check our website for latest information.

*Notes

*1.Isat : DC current (A) that will cause L0 to drop approximately 30%

*2.Irms : DC current (A) that will cause an approximate ΔT of 40°C

Revised 10/01/25

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SPH4020-R68M	0.68 \pm 20%	18.0	98.0	6.40(8.00)	6.15(6.50)	R68
SPH4020-1R0M	1.00 \pm 20%	27.0	79.0	5.60(7.00)	5.40(6.00)	1R0
SPH4020-1R2M	1.20 \pm 20%	29.0	73.0	5.20(6.50)	5.20(5.80)	1R2
SPH4020-1R5M	1.50 \pm 20%	46.0	55.0	4.40(5.50)	4.30(5.00)	1R5
SPH4020-2R2M	2.20 \pm 20%	58.0	54.0	4.00(5.00)	3.80(4.50)	2R2
SPH4020-3R3M	3.30 \pm 20%	87.0	47.0	2.80(3.50)	2.80(3.30)	3R3
SPH4020-4R7M	4.70 \pm 20%	105.0	34.0	2.40(3.00)	2.20(2.80)	4R7
SPH4020-6R8M	6.80 \pm 20%	175.0	25.0	2.00(2.50)	1.90(2.20)	6R8
SPH4020-100M	10.0 \pm 20%	282.0	24.0	1.60(2.00)	0.90(1.60)	100

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