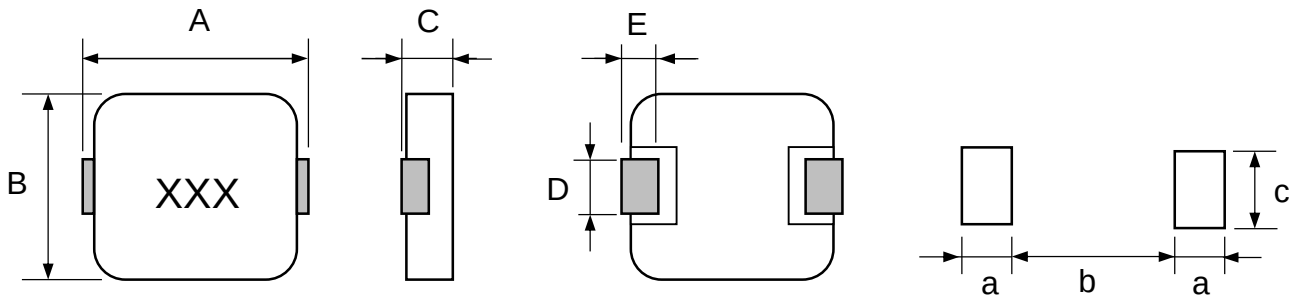
# INDEX



RoHS

# Shielded SMT Power Inductor
# SPI0402-1207H Series

## ■ SHAPES AND DIMENSIONS




Unit: mm

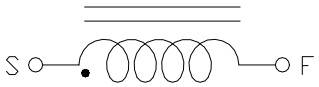
| P/N | A | B | C | D | E |
|---|---|---|---|---|---|
| SPI0402H | 4.7±0.3 | 4.2±0.3 | 1.8±0.2 | 1.7±0.5 | 1.0±0.5 |
| SPI0502H | 5.7±0.3 | 5.0±0.3 | 1.8±0.2 | 1.7±0.5 | 1.2±0.5 |
| SPI0503H | 5.7±0.3 | 5.0±0.3 | 2.8±0.2 | 1.7±0.5 | 1.2±0.5 |
| SPI0602H | 7.3±0.3 | 6.6±0.3 | 1.8±0.2 | 2.9±0.5 | 1.6±0.5 |
| SPI0625H | 7.3±0.3 | 6.6±0.3 | 2.3±0.2 | 2.9±0.5 | 1.6±0.5 |
| SPI0603H | 7.3±0.3 | 6.6±0.3 | 2.8±0.2 | 2.9±0.5 | 1.6±0.5 |
| SPI0604H | 7.3±0.3 | 6.6±0.3 | 3.8±0.2 | 2.9±0.5 | 1.6±0.5 |
| SPI0605H | 7.3±0.3 | 6.6±0.3 | 4.8±0.2 | 2.9±0.5 | 1.6±0.5 |
| SPI1003H | 11.2±0.3 | 10.3±0.3 | 2.8±0.2 | 2.9±0.5 | 2.2±0.5 |
| SPI1004H | 11.2±0.3 | 10.3±0.3 | 3.8±0.2 | 2.9±0.5 | 2.2±0.5 |
| SPI1005H | 11.2±0.3 | 10.3±0.3 | 4.8±0.2 | 2.9±0.5 | 2.2±0.5 |
| SPI1235H | 13.5±0.3 | 12.6±0.3 | 3.5±0.2 | 3.6±0.5 | 2.3±0.5 |
| SPI1205H | 13.5±0.3 | 12.6±0.3 | 4.8±0.2 | 3.6±0.5 | 2.3±0.5 |
| SPI1207H | 13.5±0.3 | 12.6±0.3 | 6.3±0.2 | 3.6±0.5 | 2.3±0.5 |

Recommend PAD Layout

| a Ref. | b Ref. | c Ref. |
|---|---|---|
| 1.5 ref | 2.5 ref | 2.2 ref |
| 2.0 ref | 3.0 ref | 2.5 ref |
| 2.0 ref | 3.0 ref | 2.5 ref |
| 2.5 ref | 3.7 ref | 3.5 ref |
| 2.5 ref | 3.7 ref | 3.5 ref |
| 2.5 ref | 3.7 ref | 3.5 ref |
| 2.5 ref | 3.7 ref | 3.5 ref |
| 2.5 ref | 3.7 ref | 3.5 ref |
| 3.5 ref | 6.0 ref | 4.0 ref |
| 3.5 ref | 6.0 ref | 4.0 ref |
| 3.5 ref | 6.0 ref | 4.0 ref |
| 2.9 ref | 7.9 ref | 5.0 ref |
| 2.9 ref | 7.9 ref | 5.0 ref |
| 2.9 ref | 7.9 ref | 5.0 ref |

Marking： XXX = Inductance

Equivalent circuit




RoHS

## ■ PART NUMBER CODE

| SPI | 0402 | H | - | 4R7 | M | A |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | | 4 | 5 | 6 |

1. Series Name
2. Size Code
3. Type Code
4. Inductance(R=Decimal Point) Unit：μH ; 4R7 =4.7uH
5. Inductance tolerance: ”M”±20%
6. Soldering：A=Lead Free

## ■ ELECTRICAL CHARACTERISTICS

1. Test equipments

1.1. L : CH-1062A LCR Meter

1.2. DCR: CH-16502BC Impedance Meter.

1.3. Isat : CH-3302 LCR Meter + CH-1320 Bias.

1.4. Irms : Digital Thermometer DM6801A.

1.5. Operating temperature range from -40℃ to 125℃

* Equivalent measurement equipment may be used.

## 2. Part Number and Characteristics Table

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0402H-R10MA | 0.10 | 20 | 4.0 | 12.00 | 22.0 |
| SPI0402H-R22MA | 0.22 | 20 | 6.6 | 9.00 | 12.5 |
| SPI0402H-R47MA | 0.47 | 20 | 14.0 | 7.00 | 9.5 |
| SPI0402H-R56MA | 0.56 | 20 | 16.0 | 6.50 | 8.5 |
| SPI0402H-1R0MA | 1.00 | 20 | 27.0 | 4.50 | 7.0 |
| SPI0402H-1R5MA | 1.50 | 20 | 46.0 | 4.00 | 6.0 |
| SPI0402H-2R2MA | 2.20 | 20 | 58.0 | 3.00 | 5.0 |
| SPI0402H-3R3MA | 3.30 | 20 | 87.0 | 2.50 | 4.0 |
| SPI0402H-4R7MA | 4.70 | 20 | 105.0 | 2.20 | 3.5 |
| SPI0402H-100MA | 10.00 | 20 | 243.0 | 1.80 | 2.5 |
| SPI0402H-150MA | 15.00 | 20 | 410.0 | 1.50 | 2.3 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0502H-R10MA | 0.10 | 20 | 3.9 | 17.00 | 45.0 |
| SPI0502H-R22MA | 0.22 | 20 | 5.2 | 15.00 | 22.0 |
| SPI0502H-R33MA | 0.33 | 20 | 8.2 | 12.00 | 25.0 |
| SPI0502H-R47MA | 0.47 | 20 | 9.4 | 11.50 | 21.0 |
| SPI0502H-R68MA | 0.68 | 20 | 12.4 | 10.00 | 18.0 |
| SPI0502H-1R0MA | 1.00 | 20 | 20.0 | 7.00 | 16.0 |
| SPI0502H-2R2MA | 2.20 | 20 | 50.1 | 4.20 | 9.5 |
| SPI0502H-3R3MA | 3.30 | 20 | 65.0 | 3.30 | 8.5 |
| SPI0502H-4R7MA | 4.70 | 20 | 85.0 | 2.80 | 5.0 |
| SPI0502H-8R2MA | 8.20 | 20 | 68.0 | 3.20 | 4.5 |
| SPI0502H-100MA | 10.00 | 20 | 155.0 | 2.50 | 4.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0503H-R10MA | 0.10 | 20 | 3.16 | 23.00 | 27.0 |
| SPI0503H-R22MA | 0.22 | 20 | 4.52 | 15.50 | 21.0 |
| SPI0503H-R33MA | 0.33 | 20 | 5.56 | 13.70 | 19.0 |
| SPI0503H-R47MA | 0.47 | 20 | 7.04 | 12.20 | 16.0 |
| SPI0503H-R68MA | 0.68 | 20 | 8.96 | 10.20 | 13.5 |
| SPI0503H-R82MA | 0.82 | 20 | 11.90 | 9.30 | 13.0 |
| SPI0503H-1R0MA | 1.00 | 20 | 13.70 | 9.20 | 12.0 |
| SPI0503H-1R5MA | 1.50 | 20 | 20.70 | 7.20 | 11.0 |
| SPI0503H-2R2MA | 2.20 | 20 | 29.20 | 5.80 | 10.0 |
| SPI0503H-3R3MA | 3.30 | 20 | 54.70 | 5.00 | 8.5 |
| SPI0503H-4R7MA | 4.70 | 20 | 77.50 | 3.50 | 8.2 |

Note:

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- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0602H-R10MA | 0.10 | 20 | 3.5 | 18.00 | 40.0 |
| SPI0602H-R15MA | 0.15 | 20 | 5.2 | 15.00 | 38.0 |
| SPI0602H-R22MA | 0.22 | 20 | 5.7 | 14.00 | 26.0 |
| SPI0602H-R33MA | 0.33 | 20 | 7.0 | 12.00 | 20.0 |
| SPI0602H-R47MA | 0.47 | 20 | 9.3 | 11.00 | 18.0 |
| SPI0602H-R68MA | 0.68 | 20 | 13.9 | 9.00 | 17.5 |
| SPI0602H-R82MA | 0.82 | 20 | 15.9 | 8.00 | 17.0 |
| SPI0602H-1R0MA | 1.00 | 20 | 18.3 | 7.00 | 14.0 |
| SPI0602H-1R5MA | 1.50 | 20 | 34.0 | 4.00 | 13.0 |
| SPI0602H-2R2MA | 2.20 | 20 | 46.0 | 3.75 | 11.5 |
| SPI0602H-3R3MA | 3.30 | 20 | 60.1 | 3.25 | 10.0 |
| SPI0602H-4R7MA | 4.70 | 20 | 78.0 | 3.00 | 8.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0625H-R10MA | 0.10 | 20 | 1.7 | 30.0 | 50.0 |
| SPI0625H-R15MA | 0.15 | 20 | 1.0 | 32.0 | 45.0 |
| SPI0625H-R22MA | 0.22 | 20 | 3.2 | 21.0 | 34.0 |
| SPI0625H-R33MA | 0.33 | 20 | 4.1 | 18.0 | 22.0 |
| SPI0625H-R47MA | 0.47 | 20 | 6.5 | 13.5 | 21.0 |
| SPI0625H-R68MA | 0.68 | 20 | 9.4 | 11.0 | 18.0 |
| SPI0625H-R82MA | 0.82 | 20 | 11.8 | 10.0 | 17.0 |
| SPI0625H-1R0MA | 1.00 | 20 | 14.2 | 9.0 | 16.0 |
| SPI0625H-1R5MA | 1.50 | 20 | 21.2 | 7.5 | 15.0 |
| SPI0625H-2R2MA | 2.20 | 20 | 34.0 | 6.5 | 14.0 |
| SPI0625H-3R3MA | 3.30 | 20 | 51.6 | 5.0 | 13.0 |
| SPI0625H-4R7MA | 4.70 | 20 | 63.0 | 4.5 | 10.0 |
| SPI0625H-6R8MA | 6.80 | 20 | 95.0 | 3.5 | 9.0 |
| SPI0625H-8R2MA | 8.20 | 20 | 106.0 | 3.0 | 8.0 |
| SPI0625H-100MA | 10.00 | 20 | 129.0 | 2.5 | 7.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0603H-R10MA | 0.10 | 20 | 1.7 | 32.5 | 60.0 |
| SPI0603H-R22MA | 0.22 | 20 | 2.8 | 23.0 | 40.0 |
| SPI0603H-R33MA | 0.33 | 20 | 3.9 | 20.0 | 30.0 |
| SPI0603H-R36MA | 0.36 | 20 | 3.9 | 20.0 | 35.0 |
| SPI0603H-R47MA | 0.47 | 20 | 4.5 | 17.5 | 26.0 |
| SPI0603H-R56MA | 0.56 | 20 | 5.5 | 16.5 | 26.0 |
| SPI0603H-R68MA | 0.68 | 20 | 5.5 | 15.5 | 25.0 |
| SPI0603H-R82MA | 0.82 | 20 | 8.0 | 13.0 | 24.0 |
| SPI0603H-1R0MA | 1.00 | 20 | 10.0 | 11.0 | 22.0 |
| SPI0603H-1R5MA | 1.50 | 20 | 15.0 | 9.0 | 18.0 |
| SPI0603H-2R2MA | 2.20 | 20 | 20.0 | 8.0 | 14.0 |
| SPI0603H-3R3MA | 3.30 | 20 | 30.0 | 6.0 | 13.5 |
| SPI0603H-4R7MA | 4.70 | 20 | 40.0 | 5.5 | 10.0 |
| SPI0603H-5R6MA | 5.60 | 20 | 55.0 | 5.0 | 9.0 |
| SPI0603H-6R8MA | 6.80 | 20 | 60.0 | 4.5 | 8.0 |
| SPI0603H-8R2MA | 8.20 | 20 | 68.0 | 4.0 | 7.5 |
| SPI0603H-100MA | 10.00 | 20 | 85.0 | 3.0 | 6.0 |
| SPI0603H-150MA | 15.00 | 20 | 110.0 | 3.0 | 4.5 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0604H-R47MA | 0.47 | 20 | 2.9 | 22.0 | 25.0 |
| SPI0604H-R56MA | 0.56 | 20 | 3.7 | 18.0 | 24.0 |
| SPI0604H-R68MA | 0.68 | 20 | 4.2 | 16.5 | 23.5 |
| SPI0604H-1R0MA | 1.00 | 20 | 12.0 | 11.5 | 23.0 |
| SPI0604H-1R5MA | 1.50 | 20 | 14.0 | 10.0 | 17.0 |
| SPI0604H-2R2MA | 2.20 | 20 | 18.0 | 8.5 | 16.0 |
| SPI0604H-3R3MA | 3.30 | 20 | 23.0 | 7.0 | 13.0 |
| SPI0604H-4R7MA | 4.70 | 20 | 35.0 | 6.0 | 8.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI0605H-R47MA | 0.47 | 20 | 3.0 | 21.0 | 25.0 |
| SPI0605H-R56MA | 0.56 | 20 | 3.6 | 20.0 | 18.0 |
| SPI0605H-R68MA | 0.68 | 20 | 4.5 | 18.0 | 16.0 |
| SPI0605H-R82MA | 0.82 | 20 | 4.9 | 16.5 | 17.0 |
| SPI0605H-1R0MA | 1.00 | 20 | 6.5 | 13.0 | 15.0 |
| SPI0605H-1R5MA | 1.50 | 20 | 9.0 | 11.0 | 12.0 |
| SPI0605H-2R2MA | 2.20 | 20 | 13.6 | 10.0 | 12.0 |
| SPI0605H-3R3MA | 3.30 | 20 | 20.9 | 8.5 | 9.0 |
| SPI0605H-4R7MA | 4.70 | 20 | 30.3 | 6.5 | 7.0 |
| SPI0605H-5R6MA | 5.60 | 20 | 34.4 | 6.0 | 7.0 |
| SPI0605H-6R8MA | 6.80 | 20 | 44.6 | 5.5 | 6.0 |
| SPI0605H-8R2MA | 8.20 | 20 | 50.7 | 5.0 | 5.5 |
| SPI0605H-100MA | 10.00 | 20 | 71.3 | 4.5 | 4.5 |
| SPI0605H-150MA | 15.00 | 20 | 105.0 | 3.5 | 4.5 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1003H-R36MA | 0.36 | 20 | 1.6 | 24.0 | 28.0 |
| SPI1003H-R47MA | 0.47 | 20 | 2.5 | 23.0 | 26.0 |
| SPI1003H-R56MA | 0.56 | 20 | 3.0 | 22.0 | 24.0 |
| SPI1003H-R68MA | 0.68 | 20 | 3.4 | 21.0 | 23.0 |
| SPI1003H-1R0MA | 1.00 | 20 | 6.0 | 15.0 | 21.0 |
| SPI1003H-1R5MA | 1.50 | 20 | 7.5 | 13.5 | 20.0 |
| SPI1003H-2R2MA | 2.20 | 20 | 9.0 | 13.0 | 16.0 |
| SPI1003H-3R3MA | 3.30 | 20 | 16.0 | 9.0 | 14.0 |
| SPI1003H-4R7MA | 4.70 | 20 | 22.5 | 7.0 | 13.0 |
| SPI1003H-5R6MA | 5.60 | 20 | 40.0 | 6.0 | 10.0 |
| SPI1003H-8R2MA | 8.20 | 20 | 45.0 | 5.5 | 8.5 |
| SPI1003H-100MA | 10.00 | 20 | 55.0 | 5.0 | 7.5 |

Note:

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- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1004H-R19MA | 0.19 | 20 | 0.95 | 40.0 | 90.0 |
| SPI1004H-R36MA | 0.36 | 20 | 1.40 | 31.5 | 60.0 |
| SPI1004H-R47MA | 0.47 | 20 | 1.60 | 28.5 | 52.0 |
| SPI1004H-R56MA | 0.56 | 20 | 1.80 | 27.5 | 49.0 |
| SPI1004H-R68MA | 0.68 | 20 | 2.40 | 23.0 | 45.0 |
| SPI1004H-R82MA | 0.82 | 20 | 3.20 | 21.0 | 40.0 |
| SPI1004H-1R0MA | 1.00 | 20 | 3.70 | 17.5 | 36.0 |
| SPI1004H-1R5MA | 1.50 | 20 | 5.80 | 15.0 | 27.5 |
| SPI1004H-2R2MA | 2.20 | 20 | 10.0 | 12.0 | 25.6 |
| SPI1004H-3R3MA | 3.30 | 20 | 12.0 | 10.0 | 18.6 |
| SPI1004H-4R7MA | 4.70 | 20 | 16.5 | 9.5 | 17.0 |
| SPI1004H-5R6MA | 5.60 | 20 | 19.3 | 8.5 | 16.0 |
| SPI1004H-6R8MA | 6.80 | 20 | 23.3 | 8.0 | 13.5 |
| SPI1004H-8R2MA | 8.20 | 20 | 35.0 | 7.0 | 12.5 |
| SPI1004H-100MA | 10.0 | 20 | 36.5 | 6.8 | 12.0 |
| SPI1004H-470MA | 47.0 | 20 | 145.0 | 3.5 | 4.0 |

Note:

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- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1005H-R15MA | 0.15 | 20 | 0.70 | 45.0 | 92.0 |
| SPI1005H-R36MA | 0.36 | 20 | 0.92 | 35.0 | 40.0 |
| SPI1005H-R47MA | 0.47 | 20 | 1.04 | 32.0 | 38.0 |
| SPI1005H-R56MA | 0.56 | 20 | 1.21 | 30.0 | 36.0 |
| SPI1005H-R68MA | 0.68 | 20 | 1.65 | 29.2 | 32.0 |
| SPI1005H-1R0MA | 1.00 | 20 | 2.53 | 24.0 | 28.0 |
| SPI1005H-1R5MA | 1.50 | 20 | 3.02 | 20.0 | 22.0 |
| SPI1005H-1R8MA | 1.80 | 20 | 4.03 | 18.0 | 20.5 |
| SPI1005H-2R2MA | 2.20 | 20 | 4.60 | 17.0 | 20.0 |
| SPI1005H-3R3MA | 3.30 | 20 | 10.0 | 12.0 | 15.0 |
| SPI1005H-4R7MA | 4.70 | 20 | 12.0 | 10.0 | 13.0 |
| SPI1005H-5R6MA | 5.60 | 20 | 16.0 | 9.0 | 12.0 |
| SPI1005H-8R2MA | 8.20 | 20 | 24.0 | 7.5 | 9.0 |
| SPI1005H-100MA | 10.0 | 20 | 28.0 | 7.0 | 8.0 |
| SPI1005H-150MA | 15.0 | 20 | 34.0 | 6.5 | 8.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
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- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1235H-R10MA | 0.10 | 20 | 0.96 | 43.0 | 84.0 |
| SPI1235H-R15MA | 0.15 | 20 | 1.20 | 41.0 | 75.0 |
| SPI1235H-R22MA | 0.22 | 20 | 1.30 | 38.5 | 65.0 |
| SPI1235H-R33MA | 0.33 | 20 | 1.50 | 36.5 | 62.0 |
| SPI1235H-R47MA | 0.47 | 20 | 2.00 | 32.0 | 55.0 |
| SPI1235H-R60MA | 0.60 | 20 | 2.20 | 29.0 | 51.0 |
| SPI1235H-R68MA | 0.68 | 20 | 2.50 | 28.0 | 49.0 |
| SPI1235H-R82MA | 0.82 | 20 | 3.00 | 25.0 | 44.0 |
| SPI1235H-1R0MA | 1.00 | 20 | 3.50 | 24.0 | 40.0 |
| SPI1235H-1R5MA | 1.50 | 20 | 5.50 | 19.0 | 35.0 |
| SPI1235H-1R8MA | 1.80 | 20 | 7.00 | 16.5 | 30.0 |
| SPI1235H-2R2MA | 2.20 | 20 | 8.00 | 16.0 | 29.0 |
| SPI1235H-3R3MA | 3.30 | 20 | 12.0 | 12.0 | 27.0 |
| SPI1235H-4R7MA | 4.70 | 20 | 15.0 | 10.0 | 24.0 |
| SPI1235H-5R6MA | 5.60 | 20 | 19.0 | 9.5 | 19.0 |
| SPI1235H-6R8MA | 6.80 | 20 | 22.0 | 9.0 | 18.0 |
| SPI1235H-8R2MA | 8.20 | 20 | 28.0 | 8.5 | 16.0 |
| SPI1235H-100MA | 10.0 | 20 | 34.0 | 7.0 | 14.0 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
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- All test data is referenced to 25°C ambient.

| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1205H-R10MA | 0.10 | 20 | 0.6 | 55.0 | 118 |
| SPI1205H-R22MA | 0.22 | 20 | 0.8 | 51.0 | 110 |
| SPI1205H-R33MA | 0.33 | 20 | 1.1 | 42.0 | 80.0 |
| SPI1205H-R47MA | 0.47 | 20 | 1.3 | 38.0 | 65.0 |
| SPI1205H-R56MA | 0.56 | 20 | 1.5 | 36.0 | 55.0 |
| SPI1205H-R68MA | 0.68 | 20 | 1.7 | 34.0 | 54.0 |
| SPI1205H-R82MA | 0.82 | 20 | 2.3 | 31.0 | 53.0 |
| SPI1205H-1R0MA | 1.00 | 20 | 2.5 | 29.0 | 50.0 |
| SPI1205H-1R5MA | 1.50 | 20 | 4.1 | 23.0 | 48.0 |
| SPI1205H-1R8MA | 1.80 | 20 | 4.9 | 20.0 | 40.0 |
| SPI1205H-2R2MA | 2.20 | 20 | 5.5 | 20.0 | 35.0 |
| SPI1205H-3R3MA | 3.30 | 20 | 9.2 | 15.0 | 32.0 |
| SPI1205H-4R7MA | 4.70 | 20 | 15.0 | 12.0 | 27.0 |
| SPI1205H-5R6MA | 5.60 | 20 | 16.5 | 12.0 | 22.0 |
| SPI1205H-6R8MA | 6.80 | 20 | 18.5 | 11.0 | 21.0 |
| SPI1205H-7R8MA | 7.80 | 20 | 20.5 | 10.0 | 18.0 |
| SPI1205H-8R2MA | 8.20 | 20 | 22.5 | 9.5 | 18.0 |
| SPI1205H-100MA | 10.0 | 20 | 25.5 | 9.0 | 16.0 |

Note:

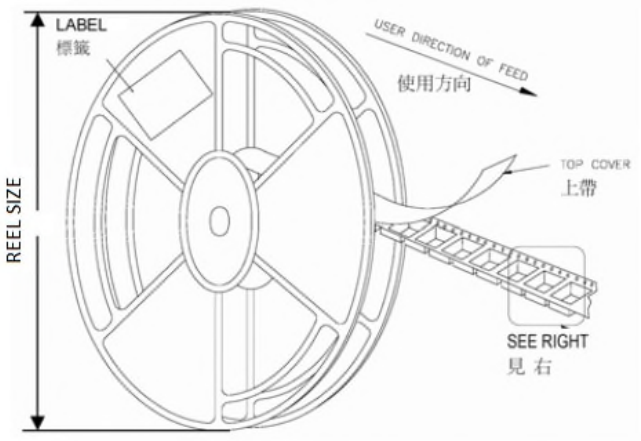
- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

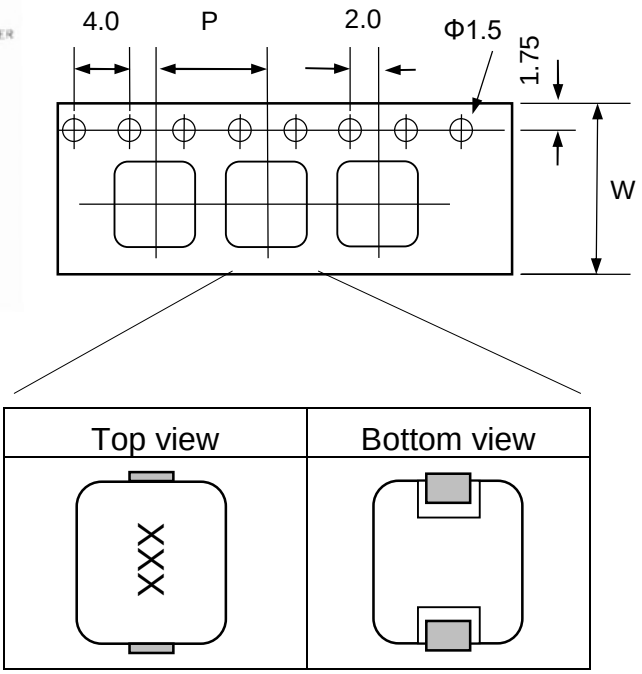
| Part Number | Inductance (μH) ± 20% | Tolerance (±%) | DCR @25°C (mΩ) Max. | Temperature Rise Current (A) Max. | Saturation Current (A) Max. |
|---|---|---|---|---|---|
| SPI1207H-R10MA | 0.10 | 20 | 0.5 | 60.0 | 120 |
| SPI1207H-R15MA | 0.15 | 20 | 0.6 | 55.0 | 118 |
| SPI1207H-R22MA | 0.22 | 20 | 0.7 | 53.0 | 112 |
| SPI1207H-R30MA | 0.30 | 20 | 0.8 | 48.0 | 72.0 |
| SPI1207H-R33MA | 0.33 | 20 | 0.9 | 46.0 | 65.0 |
| SPI1207H-R40MA | 0.40 | 20 | 1.0 | 44.0 | 64.0 |
| SPI1207H-R47MA | 0.47 | 20 | 1.2 | 41.0 | 63.0 |
| SPI1207H-R56MA | 0.56 | 20 | 1.4 | 37.0 | 62.0 |
| SPI1207H-R68MA | 0.68 | 20 | 1.6 | 35.0 | 60.0 |
| SPI1207H-R82MA | 0.82 | 20 | 1.9 | 33.0 | 50.0 |
| SPI1207H-1R0MA | 1.00 | 20 | 2.0 | 32.0 | 49.0 |
| SPI1207H-1R2MA | 1.20 | 20 | 2.5 | 30.0 | 48.0 |
| SPI1207H-1R5MA | 1.50 | 20 | 3.0 | 27.0 | 45.0 |
| SPI1207H-1R8MA | 1.80 | 20 | 3.2 | 24.0 | 41.0 |
| SPI1207H-2R2MA | 2.20 | 20 | 4.2 | 22.0 | 40.0 |
| SPI1207H-3R3MA | 3.30 | 20 | 4.5 | 18.0 | 35.0 |
| SPI1207H-4R7MA | 4.70 | 20 | 8.7 | 13.5 | 32.0 |
| SPI1207H-5R6MA | 5.60 | 20 | 10.0 | 13.5 | 32.0 |
| SPI1207H-6R8MA | 6.80 | 20 | 14.0 | 11.5 | 16.5 |
| SPI1207H-8R2MA | 8.20 | 20 | 15.5 | 10.5 | 16.0 |
| SPI1207H-100MA | 10.0 | 20 | 17.2 | 10.0 | 15.5 |

Note:

- Initial Inductance: Testing at 100KHz/0.25V.
- Saturation Current: DC current that will cause initial Inductance to drop approximately 25%.
- Temperature Rise Current: DC current that will cause an approximate ΔT of 40°C.
- All test data is referenced to 25°C ambient.

## ■ REEL DIMENSIONS AND PACKAGING QUANTITY




Unit: mm

| TYPE | W | P | REEL SIZE | PCS / REEL |
|---|---|---|---|---|
| SPI0402H | 12 | 8 | 330 mm (13”) | 3500 |
| SPI0502H | 12 | 8 | 330 mm (13”) | 3000 |
| SPI0503H | 12 | 8 | 330 mm (13”) | 2500 |
| SPI0602H | 16 | 12 | 330 mm (13”) | 2000 |
| SPI0625H | 16 | 12 | 330 mm (13”) | 2000 |
| SPI0603H | 16 | 12 | 330 mm (13”) | 1500 |
| SPI0604H | 16 | 12 | 330 mm (13”) | 1000 |
| SPI0605H | 16 | 12 | 330 mm (13”) | 800 |
| SPI1003H | 24 | 16 | 330 mm (13”) | 1000 |
| SPI1004H | 24 | 16 | 330 mm (13”) | 1000 |
| SPI1005H | 24 | 16 | 330 mm (13”) | 800 |
| SPI1235H | 24 | 16 | 330 mm (13”) | 1000 |
| SPI1205H | 24 | 16 | 330 mm (13”) | 500 |
| SPI1207H | 24 | 16 | 330 mm (13”) | 500 |

RoHS