

MOX-SPI-1205

MoxiE
INDUCTOR CORPORATION

MoxiE's MOX-SPI-1205 series shielded surface mount power inductors are engineered to offer a low DC resistance that are ideal for large current applications. The robust package allows for high energy storage with low power loss and low noise. Maximum temperature range of 125°C.



Features:

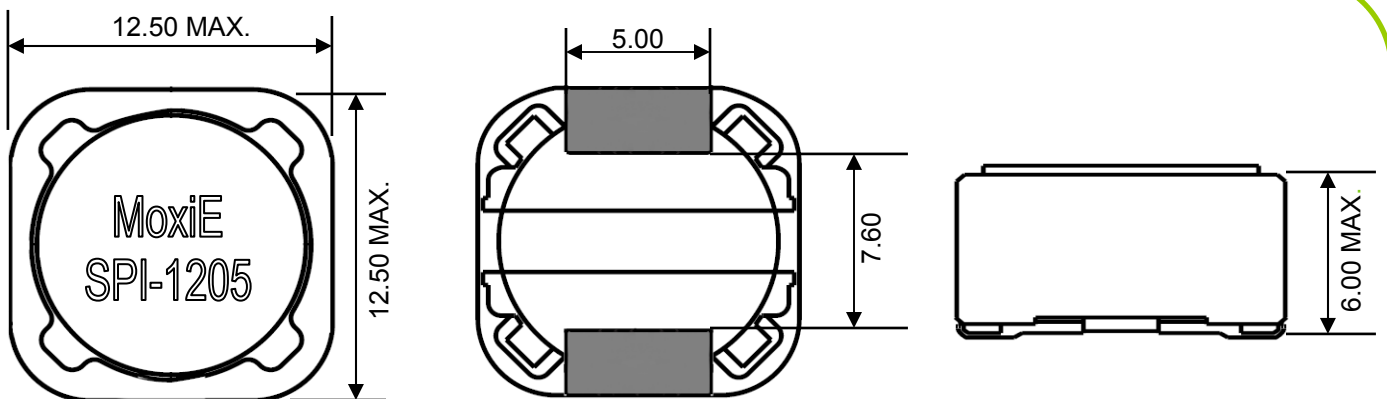
- Magnetically shielding available.
- Ideal for a variety of DC to DC converter applications.
- Ferrite core material.
- Low cost.
- RoHS compliant.
- Available on tape & reel for auto surface mounting.



NOTES



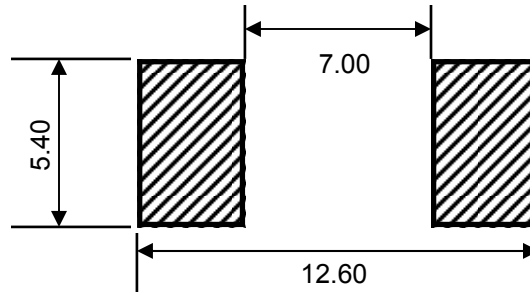
MECHANICAL DIMENSIONS





LANDING PATTERN & CONSTRUCTION

NOTE:
ALL DIMENSIONS
ARE IN MM.



MOX-SPI-1205 ELECTRICAL SPECIFICATIONS

| MoxiE Part Number | Inductance (μH) | Test Frequency | Tolerance (±) | DCR (mΩ) Typ. | DCR (mΩ) Max. | SRF (MHz) Typ. | Isat (A) 10% drop | Isat (A) 20% drop | Isat (A) 30% drop | Irms (A) 20° rise | Irms (A) 40° rise |
|-------------------|-----------------|----------------|---------------|---------------|---------------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| MOX-SPI-1205-100M | 10.0 | 100.0 KHz | 20% | 21.5 | 23.9 | 22.0 | 6.19 | 6.93 | 7.45 | 3.05 | 4.05 |
| MOX-SPI-1205-120M | 12.0 | 100.0 KHz | 20% | 24.5 | 27.2 | 20.0 | 5.19 | 5.95 | 6.45 | 2.85 | 3.72 |
| MOX-SPI-1205-150M | 15.0 | 100.0 KHz | 20% | 30.7 | 34.1 | 18.0 | 4.81 | 5.42 | 5.79 | 2.65 | 3.52 |
| MOX-SPI-1205-180M | 18.0 | 100.0 KHz | 20% | 35.4 | 39.2 | 16.0 | 4.59 | 5.23 | 5.65 | 2.55 | 3.32 |
| MOX-SPI-1205-220M | 22.0 | 100.0 KHz | 20% | 36.6 | 40.2 | 15.0 | 4.07 | 4.64 | 4.98 | 2.35 | 3.12 |
| MOX-SPI-1205-270M | 27.0 | 100.0 KHz | 20% | 51.5 | 57.0 | 13.0 | 3.53 | 3.97 | 4.29 | 2.15 | 2.92 |
| MOX-SPI-1205-330M | 33.0 | 100.0 KHz | 20% | 54.9 | 61.0 | 12.2 | 3.23 | 3.75 | 4.04 | 2.05 | 2.74 |
| MOX-SPI-1205-390M | 39.0 | 100.0 KHz | 20% | 58.0 | 64.2 | 12.0 | 3.09 | 3.57 | 3.82 | 1.95 | 2.62 |
| MOX-SPI-1205-470M | 47.0 | 100.0 KHz | 20% | 80.1 | 89.0 | 11.5 | 2.67 | 3.05 | 3.32 | 1.88 | 2.54 |
| MOX-SPI-1205-560M | 56.0 | 100.0 KHz | 20% | 82.5 | 91.2 | 10.4 | 2.55 | 2.97 | 3.18 | 1.75 | 2.41 |
| MOX-SPI-1205-680M | 68.0 | 100.0 KHz | 20% | 94.5 | 105.0 | 10.0 | 2.41 | 2.71 | 2.96 | 1.70 | 2.32 |
| MOX-SPI-1205-820M | 82.0 | 100.0 KHz | 20% | 131.5 | 146.1 | 8.6 | 2.17 | 2.47 | 2.68 | 1.65 | 2.23 |
| MOX-SPI-1205-101M | 100.0 | 100.0 KHz | 20% | 141.7 | 157.2 | 7.7 | 1.89 | 2.17 | 2.35 | 1.55 | 2.14 |
| MOX-SPI-1205-121M | 120.0 | 100.0 KHz | 20% | 193.2 | 214.2 | 6.8 | 1.72 | 1.94 | 2.15 | 1.40 | 1.89 |
| MOX-SPI-1205-151M | 150.0 | 100.0 KHz | 20% | 215.1 | 239.2 | 6.3 | 1.59 | 1.82 | 1.99 | 1.23 | 1.67 |
| MOX-SPI-1205-181M | 180.0 | 100.0 KHz | 20% | 254.0 | 282.2 | 6.1 | 1.42 | 1.62 | 1.74 | 1.15 | 1.59 |
| MOX-SPI-1205-221M | 220.0 | 100.0 KHz | 20% | 314.0 | 349.0 | 5.5 | 1.29 | 1.45 | 1.58 | 1.04 | 1.45 |
| MOX-SPI-1205-271M | 270.0 | 100.0 KHz | 20% | 368.2 | 409.4 | 4.3 | 1.12 | 1.26 | 1.39 | 0.92 | 1.47 |
| MOX-SPI-1205-331M | 330.0 | 100.0 KHz | 20% | 481.2 | 534.4 | 4.0 | 1.02 | 1.15 | 1.25 | 0.87 | 1.18 |
| MOX-SPI-1205-391M | 390.0 | 100.0 KHz | 20% | 517.2 | 575.0 | 3.5 | 0.95 | 1.07 | 1.18 | 0.79 | 1.09 |
| MOX-SPI-1205-471M | 470.0 | 100.0 KHz | 20% | 721.1 | 801.2 | 3.0 | 0.88 | 0.99 | 1.08 | 0.72 | 0.98 |
| MOX-SPI-1205-561M | 560.0 | 100.0 KHz | 20% | 773.0 | 859.0 | 2.8 | 0.82 | 0.95 | 1.05 | 0.68 | 0.89 |
| MOX-SPI-1205-681M | 680.0 | 100.0 KHz | 20% | 867.2 | 964.0 | 2.6 | 0.75 | 0.87 | 0.94 | 0.58 | 0.82 |
| MOX-SPI-1205-821M | 820.0 | 100.0 KHz | 20% | 1157.0 | 1286.0 | 2.5 | 0.67 | 0.78 | 0.85 | 0.54 | 0.74 |
| MOX-SPI-1205-102M | 1000.0 | 100.0 KHz | 20% | 1272.0 | 1413.0 | 2.3 | 0.62 | 0.71 | 0.75 | 0.49 | 0.69 |

- MoxiE test instruments: L: HP4192A LF IMEDANCE ANALYZER DC: CHEN HWA 502BC.
- RATED CURRENT: HP4284+42841A or CH1061+CH301A
- DCR limits @ 20°C.
- Peak current for an approximate ▲T of 40°C without core loss, MoxiE recommends that the temperature of this part not exceed 125°C.
- Peak current for approximate 30% roll off at 20°C.
- RoHS Compliant.
- MoxiE Inductor Corporation specifications are subject to change without notice.