

MOX-SPI-1207

MoxiE[®]
INDUCTOR CORPORATION

MoxiE's MOX-SPI-1207 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:

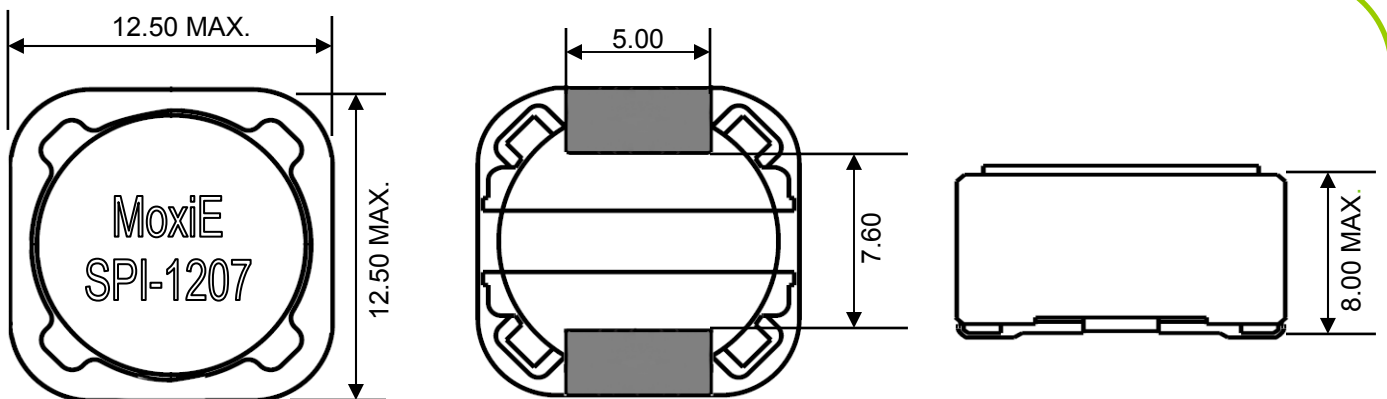
- Magnetically shielding available.
- Ideal for a variety of DC to DC converter applications.
- Ferrite core material.
- Low cost.
- RoHS compliant.
- Available on tape & reel for auto surface mounting.



NOTES



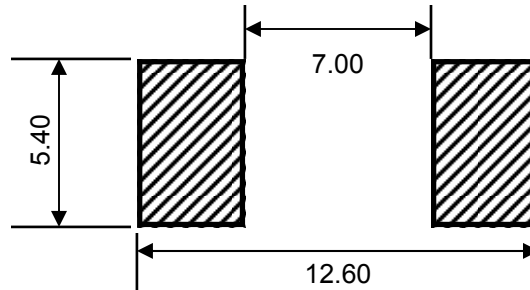
MECHANICAL DIMENSIONS





LANDING PATTERN & CONSTRUCTION

NOTE:
ALL DIMENSIONS
ARE IN MM.



MOX-SPI-1207 ELECTRICAL SPECIFICATIONS

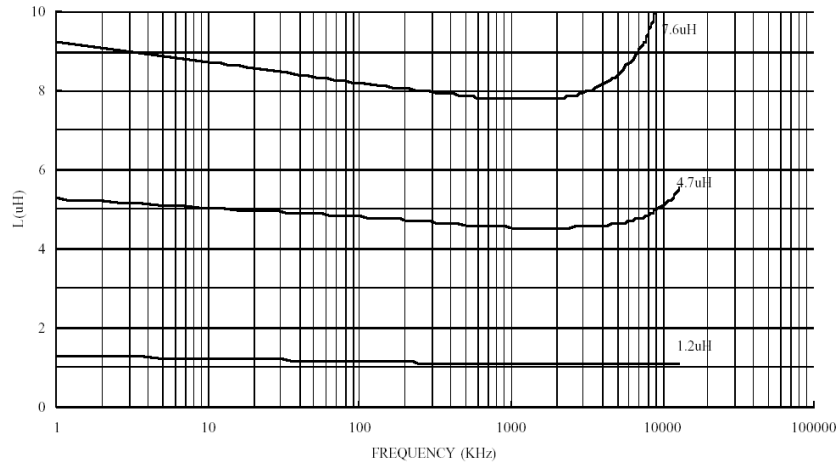
MoxiE Part Number	Inductance (µH Max.)	Tolerance (±)	DCR (mΩ) Max.	Rated Current (A) Max. ¹	Test Frequency
MOX-SPI-1207-1R2M	1.20	20% (M)	7.00	13.80	1 KHz/1V
MOX-SPI-1207-2R4M	2.40	20% (M)	11.50	10.30	1 KHz/1V
MOX-SPI-1207-3R5M	3.50	20% (M)	13.50	9.30	1 KHz/1V
MOX-SPI-1207-4R7M	4.70	20% (M)	15.80	9.10	1 KHz/1V
MOX-SPI-1207-6R1M	6.10	20% (M)	17.60	8.60	1 KHz/1V
MOX-SPI-1207-7R6M	7.60	20% (M)	20.00	7.40	1 KHz/1V
MOX-SPI-1207-100M	10.00	20% (M)	21.60	6.70	1 KHz/1V
MOX-SPI-1207-120M	12.00	20% (M)	24.30	6.45	1 KHz/1V
MOX-SPI-1207-150M	15.00	20% (M)	27.00	5.65	1 KHz/1V
MOX-SPI-1207-180M	18.00	20% (M)	39.20	5.10	1 KHz/1V
MOX-SPI-1207-220M	22.00	20% (M)	43.20	4.70	1 KHz/1V
MOX-SPI-1207-270M	27.00	20% (M)	45.90	4.20	1 KHz/1V
MOX-SPI-1207-330M	33.00	20% (M)	64.80	3.90	1 KHz/1V
MOX-SPI-1207-390M	39.00	20% (M)	72.90	3.50	1 KHz/1V
MOX-SPI-1207-470M	47.00	20% (M)	100.00	3.25	1 KHz/1V
MOX-SPI-1207-560M	56.00	20% (M)	110.00	2.90	1 KHz/1V
MOX-SPI-1207-680M	68.00	20% (M)	140.00	2.65	1 KHz/1V
MOX-SPI-1207-820M	82.00	20% (M)	160.00	2.45	1 KHz/1V
MOX-SPI-1207-101M	100.00	20% (M)	220.00	2.15	1 KHz/1V
MOX-SPI-1207-121M	120.00	20% (M)	250.00	1.95	1 KHz/1V
MOX-SPI-1207-151M	150.00	20% (M)	280.00	1.85	1 KHz/1V
MOX-SPI-1207-181M	180.00	20% (M)	350.00	1.60	1 KHz/1V
MOX-SPI-1207-221M	220.00	20% (M)	390.00	1.45	1 KHz/1V
MOX-SPI-1207-271M	270.00	20% (M)	560.00	1.35	1 KHz/1V
MOX-SPI-1207-331M	330.00	20% (M)	640.00	1.25	1 KHz/1V
MOX-SPI-1207-391M	390.00	20% (M)	700.00	1.15	1 KHz/1V
MOX-SPI-1207-471M	470.00	20% (M)	980.00	1.05	1 KHz/1V
MOX-SPI-1207-561M	560.00	20% (M)	1070.00	0.95	1 KHz/1V
MOX-SPI-1207-681M	680.00	20% (M)	1460.00	0.85	1 KHz/1V
MOX-SPI-1207-821M	820.00	20% (M)	1640.00	0.75	1 KHz/1V
MOX-SPI-1207-102M	1000.00	20% (M)	1820.00	0.70	1 KHz/1V

- DCR limits @ 20°C.
- ¹The value of current when the inductance is -25% more than its nominal value and temperature rising $\Delta T = 40^\circ\text{C}$ lower at D.C. superposition ($T_a = 20^\circ\text{C}$)
- Peak current for an approximate ΔT 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 .
- Rated current: The rated current indicates the current when the inductance decreases 65% over its nominal value or DC current when the temp rising $\Delta t = 40^\circ\text{C}$ lower, whichever is less.
- MoxiE Inductor Corporation specifications are subject to change without notice.

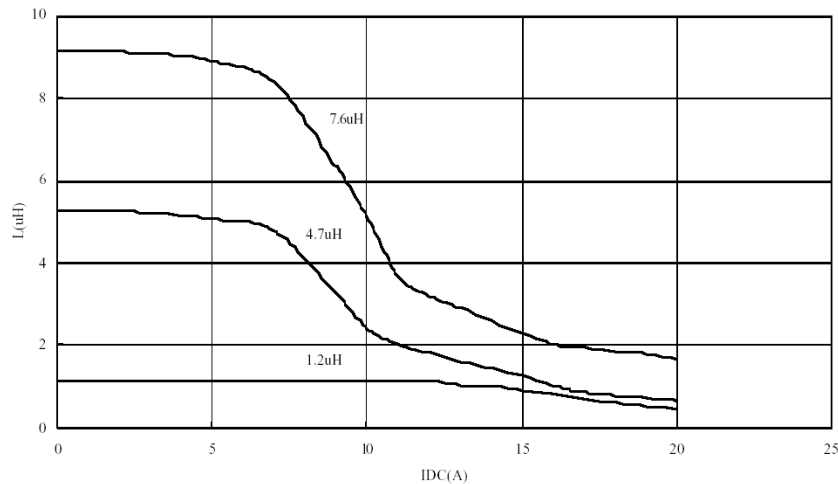


SPI-1207 SERIES CURVES

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE vs. IDC CHARACTERISTICS



- 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 ΔT 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.
- Rated current: The rated current indicates the current when the inductance decreases 65% over it's nominal value or DC current when the temp rising $\Delta t=40^\circ\text{C}$ lower, whichever is less.