

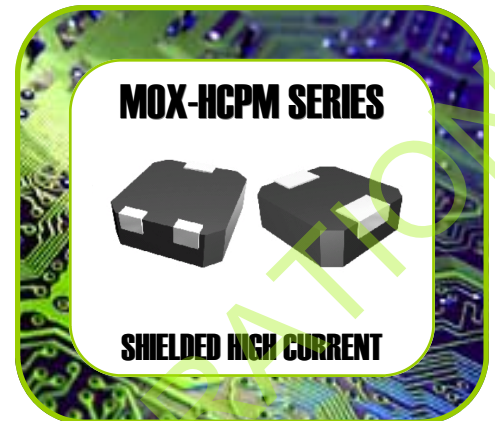
# MOX-HCPM SERIES

## Shielded Surface Mount High Current Power Inductors

MoxiE's HCPM series of surface mount shielded power inductors are widely used in high current DC-DC converters, base stations, RSM, multi-phase buck regulators & routers. MoxiE offers a ultra low profile magnetically shielded package that offer high inductance & high power.

### Features:

- Ultra low profile design.
- Operating temperature: -40°C to +125°C.
- Shielded construction.
- Handles high current spikes without saturation.
- MoxiE Inductor Corporation custom designs available.



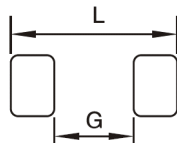
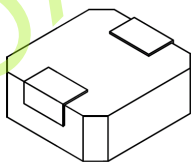
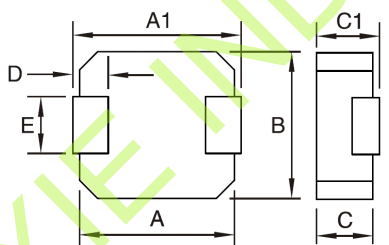
## PART NUMBER DIMENSIONS (mm)

MoxiE Part Number	A	A1	B	C	C1	D	E	F	L	G	H
MOX-HCPM-1205	12.50 ± 0.30	13.90 MAX.	13.50 MAX.	5.00 MAX.	5.20 MAX.	2.50 ± 0.50	3.00 ± 0.50	-	15.00	7.00	4.50
MOX-HCPM-1254	12.70 ± 0.30	13.90 MAX.	13.90 MAX.	5.30 MAX.	5.40 MAX.	7.60 ± 0.50	2.00 ± 0.30	2.00 ± 0.30	-	-	-

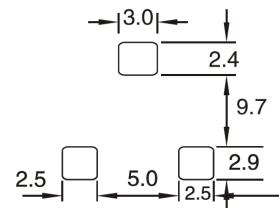
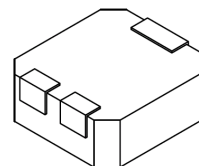
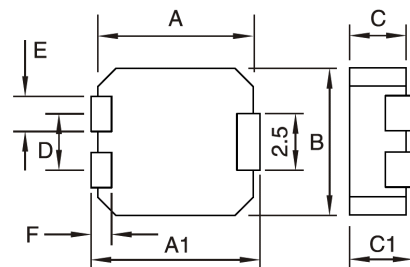


## MECHANICAL DIMENSIONS & SCHEMATIC

MOX-HCPM-1205



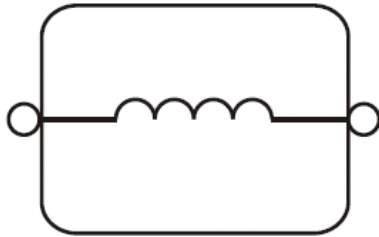
MOX-HCPM-1254



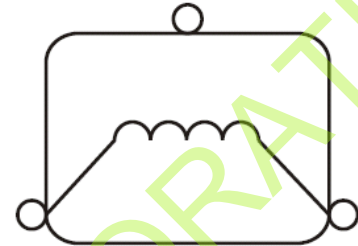
# MOX-HCPM SERIES

## SCHEMATICS

MOX-HCPM-1205



MOX-HCPM-1254



## ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Thickness Max.	Inductance* (μH)	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	DCR (mΩ) Max.
MOX-HCPM-1205-R36M	5.0	0.36	41	75	1.1
MOX-HCPM-1205-R47M	5.0	0.47	38	65	1.3
MOX-HCPM-1205-R50M	5.0	0.50	36	55	1.5
MOX-HCPM-1205-R56M	5.0	0.56	36	55	1.5
MOX-HCPM-1205-R68M	5.0	0.68	34	54	1.7
MOX-HCPM-1205-1R0M	5.0	1.00	29	50	2.5
MOX-HCPM-1205-1R5M	5.0	1.50	23	48	4.1

MoxiE Part Number	Thickness Max.	Inductance* (μH)	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	DCR (mΩ) Max.
MOX-HCPM-1254-R36M	5.4	0.68	29.7	38.8	1.5
MOX-HCPM-1254-1R0M	5.4	1.00	25.7	33.6	2.0
MOX-HCPM-1254-1R2M	5.4	1.20	23.1	26.9	2.6
MOX-HCPM-1254-2R2M	5.4	2.20	17.8	19.6	4.5
MOX-HCPM-1254-3R3M	5.4	3.30	14.4	17.5	7.0
MOX-HCPM-1254-4R0M	5.4	4.00	11.0	13.2	7.2
MOX-HCPM-1254-4R7M	5.4	4.70	12.8	14.9	8.8



## ENGINEERING NOTES

- \*Inductance L<sub>0</sub> (μH) ±20% @0ADC.
- MoxiE inductance test: HP4284A @ 100kHz/1V or equivalent.
- OCL: Open Circuit Inductance test parameters:100kHz, 0.1Vrms, 0.0A<sub>dc</sub>.
- OCL@-40°C can be lower than OCL@20°C by 15% max.
- I<sub>rms</sub>: DC current for an approximate DT of 40°C without core loss.
- PCB layout, trace thickness and width, air-flow, and proximity of heat generating components will affect the overall temperature rise.
- MoxiE recommends that the temperature of the part not exceed 125°C under worst case operating conditions verified in the end application.
- Derating is necessary for AC currents.
- I<sub>sat</sub>!: Amperes Peak for approximately 30% rolloff (@25°C)
- Storage temperature: -40°C to +125°C.
- MoxiE Inductor Corporation specifications are subject to change without notice.