

# MOX-SMHC-SERIES

**MoxiE**<sup>®</sup>  
INDUCTOR CORPORATION

## Surface Mount High Current Unshielded Power Inductors

MoxiE's MOX-SMHC series of surface mount high current power inductors are specially engineered for high current, low voltage DC-DC converter applications. The industrial grade rugged design provides current ranges normally only available with larger packages.

### Features:

- Low cost.
- High current & low voltage.
- RoHS compliant.
- MoxiE Inductor corporation custom designs available.

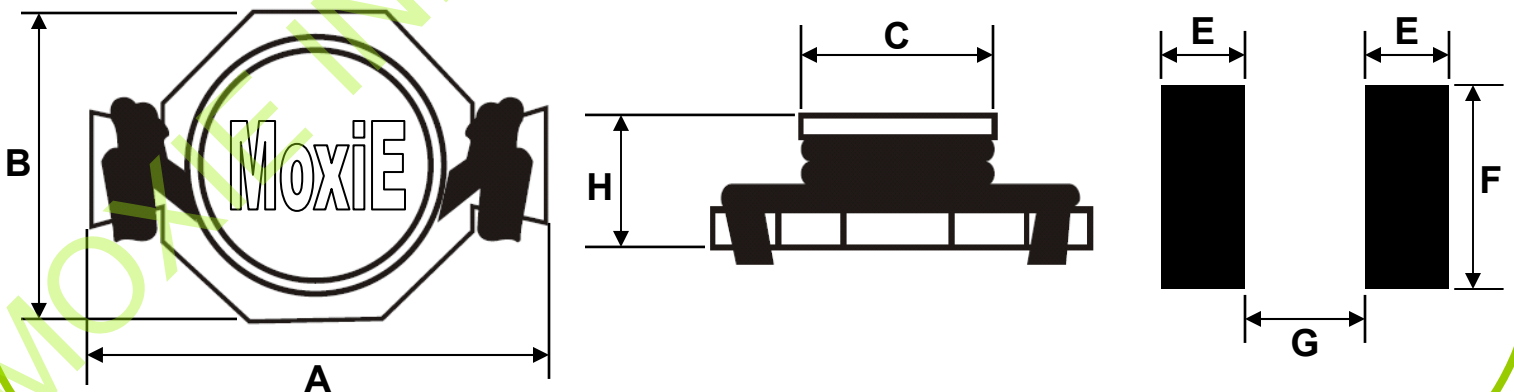


## PART NUMBERS

MOXIE PART NUMBER	A (MAX.)	B (MAX.)	C (MAX.)	H (MAX.)	E (REF.)	F (REF.)	G (REF.)
MOX-SMHC-0402	7.50	5.20	2.00	3.20	2.00	2.00	3.00
MOX-SMHC-0504	9.00	6.10	4.00	5.00	3.00	3.50	5.00
MOX-SMHC-0804	13.20	9.90	4.00	6.00	2.50	6.00	8.00
MOX-SMHC-1105	19.40	13.30	5.00	6.80	4.00	8.50	11.00
MOX-SMHC-1306	22.20	15.00	6.00	7.80	4.50	9.00	13.00



## MECHANICAL DIMENSIONS





## ELECTRICAL SPECIFICATIONS @ 25°C

MoxiE Part Number	Inductance (µH)	Tolerance (±)	DC Resistance	Rated Current	Test Condition
MOX-SMHC-0402-R47N	0.47	30%	0.025	6.90	100KHz @ 0.1V
MOX-SMHC-0402-1R0N	1.00	30%	0.050	3.50	100KHz @ 0.1V
MOX-SMHC-0402-1R5M	1.50	20%	0.050	2.95	100KHz @ 0.1V
MOX-SMHC-0402-2R2M	2.20	20%	0.070	2.80	100KHz @ 0.1V
MOX-SMHC-0402-3R3M	3.30	20%	0.080	2.50	100KHz @ 0.1V
MOX-SMHC-0402-4R7M	4.70	20%	0.090	1.90	100KHz @ 0.1V
MOX-SMHC-0402-6R8M	6.80	20%	0.130	1.70	100KHz @ 0.1V
MOX-SMHC-0402-100M	10.00	20%	0.160	1.50	100KHz @ 0.1V
MOX-SMHC-0402-150M	15.00	20%	0.230	1.40	100KHz @ 0.1V
MOX-SMHC-0402-220M	22.00	20%	0.370	0.95	100KHz @ 0.1V

MoxiE Part Number	Inductance (µH)	Tolerance (±)	DC Resistance	Rated Current	Test Condition
MOX-SMHC-0504-R47N	0.47	30%	0.010	7.40	100KHz @ 0.1V
MOX-SMHC-0504-1R0N	1.00	30%	0.018	4.90	100KHz @ 0.1V
MOX-SMHC-0504-1R5M	1.50	20%	0.020	4.70	100KHz @ 0.1V
MOX-SMHC-0504-2R2M	2.20	20%	0.037	3.60	100KHz @ 0.1V
MOX-SMHC-0504-3R3M	3.30	20%	0.43	3.40	100KHz @ 0.1V
MOX-SMHC-0504-4R7M	4.70	20%	0.055	2.60	100KHz @ 0.1V
MOX-SMHC-0504-6R8M	6.80	20%	0.090	1.90	100KHz @ 0.1V
MOX-SMHC-0504-100M	10.00	20%	0.111	1.80	100KHz @ 0.1V
MOX-SMHC-0504-150M	15.00	20%	0.175	1.50	100KHz @ 0.1V
MOX-SMHC-0504-220M	22.00	20%	0.255	1.40	100KHz @ 0.1V
MOX-SMHC-0504-330M	33.00	20%	0.367	0.98	100KHz @ 0.1V
MOX-SMHC-0504-470M	47.00	20%	0.472	0.85	100KHz @ 0.1V
MOX-SMHC-0504-680M	68.00	20%	0.745	0.69	100KHz @ 0.1V
MOX-SMHC-0504-101M	100.00	20%	1.100	0.62	100KHz @ 0.1V

### MOXIE NOTES:

- Inductance instrument testing : HP4286A/CH1062A LCR meter.
- Inductance test condition: 100KHz @ 1KHz.
- DCR instrument testing: TH2512B or MoxiE equivalent DCR testing equipment.
- Rated current testing: VR7210 & VR113H.
- Rated current definition: Inductance drop by 25% or when temperature rises by 40°C (the lesser of the minimum as the rated current.)
- Operating temperature: -40°C to +85°C.
- Storage temperature: -40°C to +125°C.
- Moxie Inductor Corporation specifications are subject to change without notice.



## ELECTRICAL SPECIFICATIONS @ 25°C

MoxiE Part Number	Inductance (μH)	Tolerance (±)	DC Resistance	Rated Current	Test Condition
MOX-SMHC-0804-R47N	0.47	30%	0.005	11.80	100KHz @ 0.1V
MOX-SMHC-0804-1R0N	1.00	30%	0.007	10.20	100KHz @ 0.1V
MOX-SMHC-0804-1R5M	1.50	20%	0.009	9.30	100KHz @ 0.1V
MOX-SMHC-0804-2R2M	2.20	20%	0.011	7.90	100KHz @ 0.1V
MOX-SMHC-0804-3R3M	3.30	20%	0.013	7.10	100KHz @ 0.1V
MOX-SMHC-0804-4R7M	4.70	20%	0.017	6.20	100KHz @ 0.1V
MOX-SMHC-0804-6R8M	6.80	20%	0.021	5.80	100KHz @ 0.1V
MOX-SMHC-0804-100M	10.00	20%	0.028	4.95	100KHz @ 0.1V
MOX-SMHC-0804-150M	15.00	20%	0.041	3.80	100KHz @ 0.1V
MOX-SMHC-0804-220M	22.00	20%	0.062	3.40	100KHz @ 0.1V
MOX-SMHC-0804-330M	33.00	20%	0.092	2.75	100KHz @ 0.1V
MOX-SMHC-0804-470M	47.00	20%	0.139	1.90	100KHz @ 0.1V
MOX-SMHC-0804-680M	68.00	20%	0.179	1.82	100KHz @ 0.1V
MOX-SMHC-0804-101M	100.00	20%	0.271	1.71	100KHz @ 0.1V

MoxiE Part Number	Inductance (μH)	Tolerance (±)	DC Resistance	Rated Current	Test Condition
MOX-SMHC-1105-R47N	0.47	30%	0.003	17.50	100KHz @ 0.1V
MOX-SMHC-1105-1R0N	1.00	30%	0.004	14.20	100KHz @ 0.1V
MOX-SMHC-1105-1R5M	1.50	20%	0.006	10.80	100KHz @ 0.1V
MOX-SMHC-1105-2R2M	2.20	20%	0.008	10.10	100KHz @ 0.1V
MOX-SMHC-1105-3R3M	3.30	20%	0.009	9.00	100KHz @ 0.1V
MOX-SMHC-1105-4R7M	4.70	20%	0.012	6.95	100KHz @ 0.1V
MOX-SMHC-1105-6R8M	6.80	20%	0.019	6.40	100KHz @ 0.1V
MOX-SMHC-1105-100M	10.00	20%	0.027	4.70	100KHz @ 0.1V
MOX-SMHC-1105-150M	15.00	20%	0.032	4.40	100KHz @ 0.1V
MOX-SMHC-1105-220M	22.00	20%	0.050	3.65	100KHz @ 0.1V
MOX-SMHC-1105-330M	33.00	20%	0.069	2.80	100KHz @ 0.1V
MOX-SMHC-1105-470M	47.00	20%	0.109	2.50	100KHz @ 0.1V
MOX-SMHC-1105-680M	68.00	20%	0.156	2.20	100KHz @ 0.1V
MOX-SMHC-1105-101M	100.00	20%	0.205	1.80	100KHz @ 0.1V

### MOXIE NOTES:

- Inductance instrument testing : HP4286A/CH1062A LCR meter.
- Inductance test condition: 100KHz @ 1KHz.
- DCR instrument testing: TH2512B or MoxiE equivalent DCR testing equipment.
- Rated current testing: VR7210 & VR113H.
- Rated current definition: Inductance drop by 25% or when temperature rises by 40°C (the lesser of the minimum as the rated current.)
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## ELECTRICAL SPECIFICATIONS @ 25°C

MoxiE Part Number	Inductance (µH)	Tolerance (±)	DC Resistance	Rated Current	Test Condition
MOX-SMHC-1306-R47N	0.47	30%	0.002	22.10	100KHz @ 0.1V
MOX-SMHC-1306-1R0N	1.00	30%	0.003	18.50	100KHz @ 0.1V
MOX-SMHC-1306-1R5M	1.50	20%	0.004	15.00	100KHz @ 0.1V
MOX-SMHC-1306-2R2M	2.20	20%	0.005	12.50	100KHz @ 0.1V
MOX-SMHC-1306-3R3M	3.30	20%	0.006	10.00	100KHz @ 0.1V
MOX-SMHC-1306-4R7M	4.70	20%	0.010	8.70	100KHz @ 0.1V
MOX-SMHC-1306-6R8M	6.80	20%	0.015	8.20	100KHz @ 0.1V
MOX-SMHC-1306-100M	10.00	20%	0.020	6.10	100KHz @ 0.1V
MOX-SMHC-1306-150M	15.00	20%	0.030	4.70	100KHz @ 0.1V
MOX-SMHC-1306-220M	22.00	20%	0.040	4.30	100KHz @ 0.1V
MOX-SMHC-1306-330M	33.00	20%	0.060	4.10	100KHz @ 0.1V
MOX-SMHC-1306-470M	47.00	20%	0.070	3.75	100KHz @ 0.1V
MOX-SMHC-1306-680M	68.00	20%	0.120	3.05	100KHz @ 0.1V
MOX-SMHC-1306-101M	100.00	20%	0.170	2.75	100KHz @ 0.1V

MOXIE PART NUMBER	Packaging	Reel Size	Quantity Per Reel
MOX-SMHC-0402	Tape & Reel	330 x 16	2000
MOX-SMHC-0504	Tape & Reel	330 x 24	1500
MOX-SMHC-0804	Tape & Reel	330 x 24	750
MOX-SMHC-1105	Tape & Reel	330 x 32	350
MOX-SMHC-1306	Tape & Reel	330 x 32	350

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