

# MOX-UPi2-SERIES



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

## UNSHIELDED SURFACE MOUNT POWER INDUCTORS

MoxiE's UPI2-Series unshielded power inductors are engineered to provide a rugged industrial design with high heat resistance and high strength terminal construction.

### Features:

- High reliability flat top design for surface mounting.
- Low cost.
- Operating temperature  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ .
- Wide range of inductance values for flexible requirements.
- RoHS compliant.
- MoxiE Inductor Corporation custom designs available.

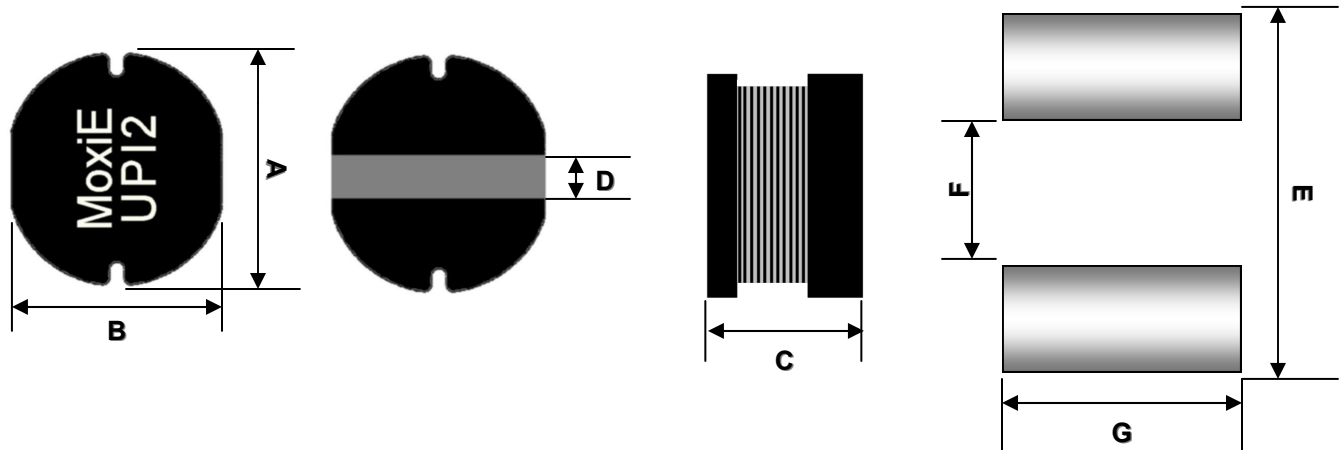


## PACKAGE TYPES

MoxiE Part Number	Length (A) Maximum	Width (B) Maximum	Height (C) Maximum	Terminal (D) Typical	E Recommended	F Recommended	G Recommended
MOX-UPI2-0403	$4.50 \pm 0.30$	$4.00 \pm 0.30$	$3.20 \pm 0.30$	$1.00 \pm 0.10$	5.00	0.80	4.50
MOX-UPI2-0504	$5.80 \pm 0.30$	$5.20 \pm 0.30$	$4.50 \pm 0.35$	$1.70 \pm 0.10$	6.00	1.50	5.50
MOX-UPI2-0703	$7.80 \pm 0.30$	$7.00 \pm 0.30$	$3.50 \pm 0.50$	$2.10 \pm 0.10$	8.00	1.90	7.50
MOX-UPI2-0705	$7.80 \pm 0.30$	$7.00 \pm 0.30$	$5.00 \pm 0.50$	$2.10 \pm 0.10$	8.00	1.90	7.50
MOX-UPI2-1004	$10.00 \pm 0.30$	$9.00 \pm 0.30$	$4.00 \pm 0.50$	$2.90 \pm 0.10$	10.00	2.70	9.50
MOX-UPI2-1005	$10.00 \pm 0.30$	$9.00 \pm 0.30$	$5.40 \pm 0.40$	$2.90 \pm 0.10$	10.00	2.70	9.50



## MECHANICAL DIMENSIONS



# MOX-UPi2-SERIES



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INDUCTOR CORPORATION



## MOX-UPi2-0403 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance (μH)	Percent Tolerance	RDC Maximum (Ω)	IDC Maximum (A)
MOX-UPi2-0403-1R0M	1.0 @ 7.96 MHz	20 (M)	0.033	3.80
MOX-UPi2-0403-1R4M	1.4 @ 7.96 MHz	20 (M)	0.038	3.30
MOX-UPi2-0403-1R8M	1.8 @ 7.96 MHz	20 (M)	0.042	2.91
MOX-UPi2-0403-2R2M	2.2 @ 7.96 MHz	20 (M)	0.047	2.60
MOX-UPi2-0403-2R7M	2.7 @ 7.96 MHz	20 (M)	0.052	2.43
MOX-UPi2-0403-3R3M	3.3 @ 7.96 MHz	20 (M)	0.058	2.15
MOX-UPi2-0403-3R9M	3.9 @ 7.96 MHz	20 (M)	0.076	1.98
MOX-UPi2-0403-4R7M	4.7 @ 7.96 MHz	20 (M)	0.094	1.93
MOX-UPi2-0403-5R6M	5.6 @ 7.96 MHz	20 (M)	0.101	1.88
MOX-UPi2-0403-6R8M	6.8 @ 7.96 MHz	20 (M)	0.117	1.85
MOX-UPi2-0403-8R2M	8.2 @ 7.96 MHz	20 (M)	0.132	1.80
MOX-UPi2-0403-100M	10.0 @ 2.52 MHz	20 (M)	0.182	1.45
MOX-UPi2-0403-120M	12.0 @ 2.52 MHz	20 (M)	0.210	1.15
MOX-UPi2-0403-150M	15.0 @ 2.52 MHz	20 (M)	0.235	0.92
MOX-UPi2-0403-180M	18.0 @ 2.52 MHz	20 (M)	0.338	0.84
MOX-UPi2-0403-220M	22.0 @ 2.52 MHz	20 (M)	0.379	0.77
MOX-UPi2-0403-270M	27.0 @ 2.52 MHz	20 (M)	0.523	0.72
MOX-UPi2-0403-330M	33.0 @ 2.52 MHz	10 (K)	0.540	0.65
MOX-UPi2-0403-390M	39.0 @ 2.52 MHz	10 (K)	0.587	0.59
MOX-UPi2-0403-470M	47.0 @ 2.52 MHz	10 (K)	0.845	0.54
MOX-UPi2-0403-560M	56.0 @ 2.52 MHz	10 (K)	0.938	0.50
MOX-UPi2-0403-680M	68.0 @ 2.52 MHz	10 (K)	1.118	0.47

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
- Resistance to soldering heat: 260°C for 10 seconds.
- Solder methods: Vapor phase & infrared reflow.
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# MOX-UPi2-SERIES



## MOX-UPi2-0504 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance (μH)	Percent Tolerance	RDC Maximum (Ω)	IDC Maximum (A)
MOX-UPi2-0504-1R0M	1.0 @ 7.96 MHz	20 (M)	0.015	5.90
MOX-UPi2-0504-1R2M	1.2 @ 7.96 MHz	20 (M)	0.020	5.20
MOX-UPi2-0504-1R5M	1.5 @ 7.96 MHz	20 (M)	0.025	4.70
MOX-UPi2-0504-1R8M	1.8 @ 7.96 MHz	20 (M)	0.030	4.00
MOX-UPi2-0504-2R2M	2.2 @ 7.96 MHz	20 (M)	0.035	3.80
MOX-UPi2-0504-2R7M	2.7 @ 7.96 MHz	20 (M)	0.040	3.40
MOX-UPi2-0504-3R3M	3.3 @ 7.96 MHz	20 (M)	0.045	3.30
MOX-UPi2-0504-3R9M	3.9 @ 7.96 MHz	20 (M)	0.050	2.90
MOX-UPi2-0504-4R7M	4.7 @ 7.96 MHz	20 (M)	0.060	2.80
MOX-UPi2-0504-5R6M	5.6 @ 7.96 MHz	20 (M)	0.070	2.40
MOX-UPi2-0504-6R8M	6.8 @ 7.96 MHz	20 (M)	0.080	2.10
MOX-UPi2-0504-8R2M	8.2 @ 7.96 MHz	20 (M)	0.090	2.00
MOX-UPi2-0504-100M	10 @ 2.52 MHz	20 (M)	0.10	1.44
MOX-UPi2-0504-120M	12 @ 2.52 MHz	20 (M)	0.12	1.40
MOX-UPi2-0504-150M	15 @ 2.52 MHz	20 (M)	0.14	1.30
MOX-UPi2-0504-180M	18 @ 2.52 MHz	20 (M)	0.15	1.23
MOX-UPi2-0504-220M	22 @ 2.52 MHz	20 (M)	0.18	1.11
MOX-UPi2-0504-270M	27 @ 2.52 MHz	20 (M)	0.20	0.97
MOX-UPi2-0504-330M	33 @ 2.52 MHz	20 (M)	0.23	0.88
MOX-UPi2-0504-390M	39 @ 2.52 MHz	20 (M)	0.32	0.80
MOX-UPi2-0504-470M	47 @ 2.52 MHz	20 (M)	0.37	0.72
MOX-UPi2-0504-560M	56 @ 2.52 MHz	20 (M)	0.42	0.68
MOX-UPi2-0504-680M	68 @ 2.52 MHz	20 (M)	0.46	0.61
MOX-UPi2-0504-820M	82 @ 2.52 MHz	20 (M)	0.60	0.58
MOX-UPi2-0504-101M	100 @ 1.00 KHz	20 (M)	0.70	0.52
MOX-UPi2-0504-121M	120 @ 1.00 KHz	20 (M)	0.93	0.48
MOX-UPi2-0504-151M	150 @ 1.00 KHz	20 (M)	1.10	0.40
MOX-UPi2-0504-181M	180 @ 1.00 KHz	20 (M)	1.38	0.38
MOX-UPi2-0504-221M	220 @ 1.00 KHz	20 (M)	1.57	0.35
MOX-UPi2-0504-271M	270 @ 1.00 KHz	20 (M)	1.65	0.32
MOX-UPi2-0504-331M	330 @ 1.00 KHz	20 (M)	1.70	0.28
MOX-UPi2-0504-391M	390 @ 1.00 KHz	20 (M)	1.80	0.26
MOX-UPi2-0504-471M	470 @ 1.00 KHz	20 (M)	2.30	0.23
MOX-UPi2-0504-561M	560 @ 1.00 KHz	20 (M)	2.50	0.20
MOX-UPi2-0504-681M	680 @ 1.00 KHz	20 (M)	3.00	0.19
MOX-UPi2-0504-821M	820 @ 1.00 KHz	20 (M)	4.50	0.16
MOX-UPi2-0504-102M	1000 @ 1.00 KHz	20 (M)	4.80	0.14

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
- Resistance to soldering heat: 260°C for 10 seconds.
- Solder methods: Vapor phase & infrared reflow.
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# MOX-UPi2-SERIES



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



## MOX-UPi2-0703 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance (μH)	Percent Tolerance	RDC Maximum (Ω)	IDC Maximum (A)
MOX-UPi2-0703-100M	10 @ 2.52 MHZ	M	0.08	1.44
MOX-UPi2-0703-120M	12 @ 2.52 MHZ	M	0.09	1.39
MOX-UPi2-0703-150M	15 @ 2.52 MHZ	M	0.10	1.24
MOX-UPi2-0703-180M	18 @ 2.52 MHZ	M	0.11	1.12
MOX-UPi2-0703-220M	22 @ 2.52 MHZ	M	0.13	1.07
MOX-UPi2-0703-270M	27 @ 2.52 MHZ	M	0.15	0.94
MOX-UPi2-0703-330M	33 @ 2.52 MHZ	M	0.17	0.85
MOX-UPi2-0703-390M	39 @ 2.52 MHZ	M	0.22	0.74
MOX-UPi2-0703-470M	47 @ 2.52 MHZ	M	0.25	0.68
MOX-UPi2-0703-560M	56 @ 2.52 MHZ	M	0.28	0.64
MOX-UPi2-0703-680M	68 @ 2.52 MHZ	M	0.33	0.59
MOX-UPi2-0703-820M	82 @ 2.52 MHZ	M	0.41	0.54
MOX-UPi2-0703-101M	100 @ 1 MHZ	M	0.48	0.51
MOX-UPi2-0703-121M	120 @ 1 MHZ	M	0.54	0.49
MOX-UPi2-0703-151M	150 @ 1 MHZ	M	0.75	0.40
MOX-UPi2-0703-181M	180 @ 1 MHZ	M	1.02	0.36
MOX-UPi2-0703-221M	220 @ 1 MHZ	M	1.20	0.31
MOX-UPi2-0703-271M	270 @ 1 MHZ	M	1.31	0.29
MOX-UPi2-0703-331M	330 @ 1 MHZ	M	1.50	0.28

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
- Resistance to soldering heat: 260°C for 10 seconds.
- Solder methods: Vapor phase & infrared reflow.
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# MOX-UPi2-SERIES



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## MOX-UPi2-0705 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance (μH)	Percent Tolerance	RDC Maximum (Ω)	IDC Maximum (A)
MOX-UPi2-0705-100M	10 @ 2.52 MHZ	M	0.07	2.30
MOX-UPi2-0705-120M	12 @ 2.52 MHZ	M	0.08	2.00
MOX-UPi2-0705-150M	15 @ 2.52 MHZ	M	0.09	1.80
MOX-UPi2-0705-180M	18 @ 2.52 MHZ	M	0.10	1.60
MOX-UPi2-0705-220M	22 @ 2.52 MHZ	M	0.11	1.50
MOX-UPi2-0705-270M	27 @ 2.52 MHZ	M	0.12	1.30
MOX-UPi2-0705-330M	33 @ 2.52 MHZ	M	0.13	1.20
MOX-UPi2-0705-390M	39 @ 2.52 MHZ	M	0.16	1.10
MOX-UPi2-0705-470M	47 @ 2.52 MHZ	M	0.18	1.10
MOX-UPi2-0705-560M	56 @ 2.52 MHZ	M	0.24	0.94
MOX-UPi2-0705-680M	68 @ 2.52 MHZ	M	0.28	0.85
MOX-UPi2-0705-820M	82 @ 2.52 MHZ	M	0.37	0.78
MOX-UPi2-0705-101M	100 @ 1 KHZ	M	0.43	0.72
MOX-UPi2-0705-121M	120 @ 1 KHZ	M	0.47	0.66
MOX-UPi2-0705-151M	150 @ 1 KHZ	M	0.64	0.58
MOX-UPi2-0705-181M	180 @ 1 KHZ	M	0.71	0.51
MOX-UPi2-0705-221M	220 @ 1 KHZ	M	0.96	0.49
MOX-UPi2-0705-271M	270 @ 1 KHZ	M	1.11	0.42
MOX-UPi2-0705-331M	330 @ 1 KHZ	M	1.26	0.40
MOX-UPi2-0705-391M	390 @ 1 KHZ	M	1.77	0.36
MOX-UPi2-0705-471M	470 @ 1 KHZ	M	1.96	0.34

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
- Resistance to soldering heat: 260°C for 10 seconds.
- Solder methods: Vapor phase & infrared reflow.
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# MOX-UPi2-SERIES



## MOX-UPi2-1004 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance (μH)	Percent Tolerance	RDC Maximum (Ω)	IDC Maximum (A)
MOX-UPi2-1004-100M	10 @ 2.52 MHZ	M	0.053	2.38
MOX-UPi2-1004-120M	12 @ 2.52 MHZ	M	0.061	2.13
MOX-UPi2-1004-150M	15 @ 2.52 MHZ	M	0.070	1.87
MOX-UPi2-1004-180M	18 @ 2.52 MHZ	M	0.081	1.73
MOX-UPi2-1004-220M	22 @ 2.52 MHZ	M	0.088	1.60
MOX-UPi2-1004-270M	27 @ 2.52 MHZ	M	0.100	1.44
MOX-UPi2-1004-330M	33 @ 2.52 MHZ	M	0.120	1.26
MOX-UPi2-1004-390M	39 @ 2.52 MHZ	M	0.151	1.20
MOX-UPi2-1004-470M	47 @ 2.52 MHZ	M	0.170	1.10
MOX-UPi2-1004-560M	56 @ 2.52 MHZ	M	0.199	1.01
MOX-UPi2-1004-680M	68 @ 2.52 MHZ	M	0.223	0.91
MOX-UPi2-1004-820M	82 @ 2.52 MHZ	M	0.252	0.85
MOX-UPi2-1004-101M	100 @ 1 KHZ	M	0.344	0.74
MOX-UPi2-1004-121M	120 @ 1 KHZ	M	0.396	0.69
MOX-UPi2-1004-151M	150 @ 1 KHZ	M	0.544	0.61
MOX-UPi2-1004-181M	180 @ 1 KHZ	M	0.621	0.56
MOX-UPi2-1004-221M	220 @ 1 KHZ	M	0.721	0.53
MOX-UPi2-1004-271M	270 @ 1 KHZ	M	0.949	0.45
MOX-UPi2-1004-331M	330 @ 1 KHZ	M	1.100	0.42
MOX-UPi2-1004-391M	390 @ 1 KHZ	M	1.245	0.38
MOX-UPi2-1004-471M	470 @ 1 KHZ	M	1.526	0.35
MOX-UPi2-1004-561M	560 @ 1 KHZ	M	1.904	0.32

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
- Resistance to soldering heat: 260°C for 10 seconds.
- Solder methods: Vapor phase & infrared reflow.
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# MOX-UPi2-SERIES



## MOX-UPi2-1005 ELECTRICAL SPECIFICATIONS

MoxiE Part Number	Inductance ( $\mu\text{H}$ )	Percent Tolerance	RDC Maximum ( $\Omega$ )	IDC Maximum (A)
MOX-UPi2-1005-100M	10	20 (M)	0.06	2.65
MOX-UPi2-1005-120M	12	20 (M)	0.07	2.50
MOX-UPi2-1005-150M	15	20 (M)	0.08	2.30
MOX-UPi2-1005-180M	18	20 (M)	0.09	2.20
MOX-UPi2-1005-220M	22	20 (M)	0.10	2.00
MOX-UPi2-1005-270M	27	20 (M)	0.11	1.80
MOX-UPi2-1005-330M	33	20 (M)	0.12	1.55
MOX-UPi2-1005-390M	39	20 (M)	0.14	1.45
MOX-UPi2-1005-470M	47	20 (M)	0.17	1.30
MOX-UPi2-1005-560M	56	20 (M)	0.19	1.20
MOX-UPi2-1005-680M	68	20 (M)	0.22	1.15
MOX-UPi2-1005-820M	82	20 (M)	0.25	1.05
MOX-UPi2-1005-101M	100	20 (M)	0.35	1.00
MOX-UPi2-1005-121M	120	20 (M)	0.40	0.95
MOX-UPi2-1005-151M	150	20 (M)	0.47	0.82
MOX-UPi2-1005-181M	180	20 (M)	0.63	0.75
MOX-UPi2-1005-221M	220	20 (M)	0.73	0.68
MOX-UPi2-1005-271M	270	20 (M)	0.97	0.59
MOX-UPi2-1005-331M	330	20 (M)	1.15	0.55
MOX-UPi2-1005-391M	390	20 (M)	1.30	0.50
MOX-UPi2-1005-471M	470	20 (M)	1.48	0.45
MOX-UPi2-1005-561M	560	20 (M)	1.90	0.37
MOX-UPi2-1005-681M	680	20 (M)	2.25	0.29
MOX-UPi2-1005-821M	820	20 (M)	2.55	0.26

- RoHS Compliant.
- Core: Ferrite.
- Wire: UL approved enameled copper wire.
- Terminal: Ag/Ni/Sn.
- Temperature rise: 40°C maximum at rated Irms.
- MoxiE marking: Inductance & tolerance.
- Solvent resistance: conforms to MIL-STD-202E.
- Packaging: Tape & reel.
- DCR tested with GW813 or QuadTech 1880 milliohmmeter.
- Operating temperature: -40°C to 105°C
- Storage temperature -40°C to 125°C. (temperature rise included)
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