

LCM 1812R Molded Chip Inductors

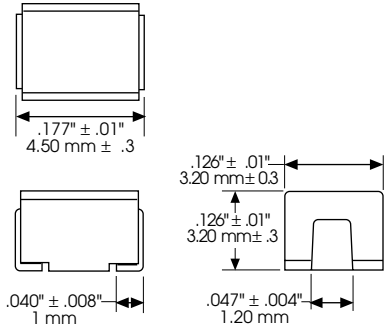


FEATURES

- ◇ Handles 15% to 55% more current than other chip inductors in the same size.
- ◇ Ideal for high power use.
- ◇ Extremely high reliability in a wide temperature and humidity range.
- ◇ Superior Q.
- ◇ Excellent for flow, re-flow soldering, and soldering iron.

APPLICATIONS

- ◇ LC resonant circuits such as oscillators and signal generators.
- ◇ Impedance matching.
- ◇ Circuit isolation.
- ◇ RF filters.
- ◇ Disk drives and computer peripherals
- ◇ Audio equipment
- ◇ Video equipment.
- ◇ TV and radio.
- ◇ Telecommunication equipment.



CHARACTERISTICS

INDUCTANCE RANGE .10 μ H to 470 μ H. Values under .10 μ H are available by special order.

TOLERANCE 20% from .10 μ H to .82 μ H. 10% from 1.0 μ H to 1000 μ H. Also available in 5% tolerance for values from 10 μ H to 470 μ H.

CURRENT RATING Based on current flow and temperature rise of 20°C maximum at 80°C ambient temperature.

TESTING PROCEDURE Inductance, Q and SRF are measured with HP4191A Impedance Analyzer with 16092A Test Clip at specified frequency. DCR measured with digital milliohms meter.

DIELECTRIC STRENGTH 500 volts RMS at sea level.

OPERATING TEMPERATURE -25°C to +85°C.

STORAGE TEMPERATURE 45°C to 100°C in original tape and reel package.

SOLDERING HEAT RESISTANCE 250°C for 3-5 seconds after 120°C preheat cycle for 5 minutes.

SOLDERABILITY 95% of the terminal is covered with solder.

RESISTANCE TO SOLVENT No change in appearance when dipped into alcohol or freon for 3 minutes.

MARKING Part is marked with inductance value in EIA code.

PACKAGING Tape and Reel only.

Part Number	Inductance (μ H)	Tolerance (\pm %)	Q Min.	Test Frequency (MHz)	SRF (MHz) min	DC Resistance (Ω) Max	IDC (mA) Max
LCM1812R-R10M	0.10	20	28	25.20	700	0.44	450
LCM1812R-R12M	0.12	20	30	25.20	500	0.22	450
LCM1812R-R15M	0.15	20	30	25.20	450	0.25	450
LCM1812R-R18M	0.18	20	30	25.20	400	0.28	450
LCM1812R-R22M	0.22	20	30	25.20	350	0.32	450
LCM1812R-R27M	0.27	20	30	25.20	320	0.36	450
LCM1812R-R33M	0.33	20	30	25.20	300	0.40	450
LCM1812R-R39M	0.39	20	30	25.20	250	0.45	450
LCM1812R-R47M	0.47	20	30	25.20	220	0.50	450
LCM1812R-R56M	0.56	20	30	25.20	180	0.55	450
LCM1812R-R68M	0.68	20	30	25.20	160	0.60	450
LCM1812R-R82M	0.82	20	30	25.20	140	0.67	450
LCM1812R-1R0K	1.00	10	50	7.960	100	0.50	450
LCM1812R-1R2K	1.20	10	50	7.960	80	0.55	430
LCM1812R-1R5K	1.50	10	50	7.960	70	0.60	410

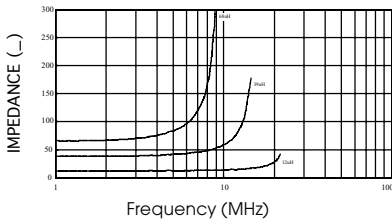
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Part Number	Inductance (µH)	Tolerance (±%)	Q Min.	Test Frequency (MHz)	SRF (MHz) min	DC Resistance (Ω) Max	IDC (mA) Max
LCM1812R-1R8K	1.80	10	50	7.960	60	0.65	390
LCM1812R-2R2K	2.20	10	50	7.960	55	0.70	380
LCM1812R-2R7K	2.70	10	50	7.960	50	0.75	370
LCM1812R-3R3K	3.30	10	50	7.960	45	0.80	355
LCM1812R-3R9K	3.90	10	50	7.960	40	0.90	330
LCM1812R-4R7K	4.70	10	50	7.960	35	1.00	315
LCM1812R-5R6K	5.60	10	50	7.960	33	1.10	300
LCM1812R-6R8K	6.80	10	50	7.960	27	1.20	285
LCM1812R-8R2K	8.20	10	50	7.960	25	1.40	270
LCM1812R-100K	10	10	50	2.520	20	1.60	250
LCM1812R-120K	12	10	50	2.520	18	2.00	225
LCM1812R-150K	15	10	50	2.520	17	2.50	200
LCM1812R-180K	18	10	50	2.520	15	2.80	190
LCM1812R-220K	22	10	50	2.520	13	3.20	180
LCM1812R-270K	27	10	50	2.520	12	3.60	170
LCM1812R-330K	33	10	50	2.520	11	4.00	160
LCM1812R-390K	39	10	50	2.520	10	4.50	150
LCM1812R-470K	47	10	50	2.520	10	5.00	140
LCM1812R-560K	56	10	50	2.520	9	5.50	135
LCM1812R-680K	68	10	50	2.520	9	6.00	130
LCM1812R-820K	82	10	50	2.520	8	7.00	120
LCM1812R-101K	100	10	40	0.796	8	8.00	110
LCM1812R-121K	120	10	40	0.796	6	8.00	110
LCM1812R-151K	150	10	40	0.796	5	9.00	105
LCM1812R-181K	180	10	40	0.796	5	9.50	10
LCM1812R-221K	220	10	40	0.796	4	12.00	100
LCM1812R-271K	270	10	30	0.796	4	18.00	92
LCM1812R-331K	330	10	30	0.796	3.5	20.00	85
LCM1812R-391K	390	10	30	0.796	3	23.00	80
LCM1812R-471K	470	10	30	0.796	3	26.00	62
LCM1812R-561K	560	10	30	0.796	3	30.00	50
LCM1812R-681K	680	10	30	0.796	3	40.00	50
LCM1812R-821K	820	10	30	0.796	2.5	45.00	30
LCM1812R-102K	1000	10	30	0.796	2.5	50.00	30

TEST INSTRUMENTS: HP4291A IMPEDANCE / MATERIAL ANALYZER

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

