

**MOLDED CHIP INDUCTOR  
SERIES IC1812**

**FEATURES**

- Highly reliable in environments of sudden temperature changes and humidity
- Large electrodes and strong terminals allow more secure bonding to solder pads
- Good for flow, reflow soldering, or soldering irons

**ELECTRICAL CHARACTERISTICS**

- Inductance range      0.10μH to 1000μH
- Tolerance                ± 20% for values under 1.0μH  
                                  ± 10% for values at or above 1.0μH  
                                  Special tolerances are available on special order.
- Rated current            Based on current flow and temperature rise of 20°C max.
- Test procedure            L & Q are measured with HP-4191A & HP-4192A
- \*Suffix E                 Identifies parts that will be passed through a second soldering reflow process at 215°C

**PHYSICAL CHARACTERISTICS**

- Operating temp.        -55°C to +105°C
- Construction            Wire wound, epoxy molding
- Soldering heat          240°C for 10 seconds resistance
- Solderability            Preheat: 120°C for 4 minutes  
                                  Solder temperature 215°C  
                                  Dwelling time: 3 seconds  
                                  95% of terminals are covered with solder
- Terminal                 Lead frame
- Terminal strength      3 lbs pull test
- Resistance to solvents Conforms to MIL-STD-202E
- Marking                 On part: Inductance  
                                  On reel: Part number, Quantity, Production date
- Packaging                500 pieces per reel
- Reel specifications     178 mm paper or plastic reel with embossed carrier tape 12 mm width, 4 mm pitch

**DIMENSIONS IN MILLIMETERS**

- Body length A            4.5 mm ± 0.2 mm
- Body width B             3.2 mm ± 0.2 mm
- Body height C            3.2 mm ± 0.2 mm
- Terminal length D        0.7 mm to 1.3 mm
- Terminal width E        1.1 mm to 1.8 mm

**SPECIFICATIONS**

Part Number	L (μH)	Tol (%)	Q Min	Test Freq (MHz)	SRF Min (MHz)	DCR Max (Ω)	Rated Current (mA)	
IC1812-R10M	0.10	±20	28	25.2	700	0.44	450	
IC1812-R12M	0.12		30		500	0.22	450	
IC1812-R15M	0.15		30		450	0.25	450	
IC1812-R18M	0.18		30		400	0.28	450	
IC1812-R22M	0.22		30		350	0.32	450	
IC1812-R27M	0.27		30		320	0.36	450	
IC1812-R33M	0.33		30		300	0.40	450	
IC1812-R39M	0.39		30		350	0.45	450	
IC1812-R47M	0.47		30		220	0.50	450	
IC1812-R56M	0.56		30		180	0.55	450	
IC1812-R68M	0.68		30		160	0.60	450	
IC1812-R82M	0.82		30		140	0.67	450	
IC1812-1R0K	1.0	±10	50	7.96	100	0.50	450	
IC1812-1R2K	1.2		50		80	0.55	430	
IC1812-1R5K	1.5		50		70	0.60	410	
IC1812-1R8K	1.8		50		60	0.65	390	
IC1812-2R2K	2.2		50		55	0.70	380	
IC1812-2R7K	2.7		50		50	0.75	370	
IC1812-3R3K	3.3		50		45	0.80	355	
IC1812-3R9K	3.9		50		40	0.90	330	
IC1812-4R7K	4.7		50		35	1.0	315	
IC1812-5R6K	5.6		50		33	1.1	300	
IC1812-6R8K	6.8		50		27	1.2	285	
IC1812-8R2K	8.2		50		25	1.4	270	
IC1812-100K	10		50		2.52	20	1.6	250
IC1812-120K	12		50			18	2.0	225
IC1812-150K	15		50			17	2.5	200
IC1812-180K	18		50			15	2.8	190
IC1812-220K	22		50			13	3.2	180
IC1812-270K	27		50			12	3.6	170
IC1812-330K	33	50	11	4.0		160		
IC1812-390K	39	50	10	4.5		150		
IC1812-470K	47	50	10	5.0		140		
IC1812-560K	56	50	9	5.5		135		
IC1812-680K	68	50	9	6.0		130		
IC1812-820K	82	50	8	7.0		120		
IC1812-101K	100	40	0.796	7	8.0	110		
IC1812-121K	120	40		6	8.0	110		
IC1812-151K	150	40		5	9.0	105		
IC1812-181K	180	40		5	9.5	102		
IC1812-221K	220	40		4	10.0	100		
IC1812-271K	270	30		3	18.0	92		
IC1812-271K-E*	270	30		3	18.0	92		
IC1812-331K	330	30		3	20.0	85		
IC1812-391K	390	30		3	23.0	80		
IC1812-471K	470	30		3	26.0	62		
IC1812-561K	560	30	2	30.0	50			
IC1812-681K	680	30	2	40.0	50			
IC1812-821K	820	30	2	45.0	30			
IC1812-102K	1000	30	2	50.0	30			

