

Eaton chip inductors protect sensitive vehicle electronics from noise intrusion



The automotive grade multilayer (MCLA, top) and wire wound (WCLA, bottom) chip inductors ideal for wireless high frequency filtering applications.

Product description

Eaton's automotive grade multilayer (MCLA) and wire wound (WCLA) are low profile, low dissipation inductors for high frequency filtering, impedance matching, and RF tuned circuits in automotive transmitting and receiving within a vehicle. They come in several industry standard footprints and offer high Q and high current capability. The chip inductors are available utilizing either magnetic or non-magnetic core material structures.

The MCLA and WCLA chip inductors are ideal for wireless RF modules such as Wi-Fi, Bluetooth®, and satellite applications. The products are AEC-Q200 Grade 3 qualified for superior mechanical and electrical performance in automotive applications.

Features and benefits:

- High Q
- AEC-Q200 Grade 3 qualified
- High current withstand capability with low DCR
- Flexible footprint options
MCLA: 0402 (1005 metric), 0603 (1608 metric), 0805 (2012 metric), 1206 (3216 metric)
WCLA: 0402 (1005 metric), 0603 (1608 metric), 0805 (2012 metric), 1008 (2520), 1210 (3225)



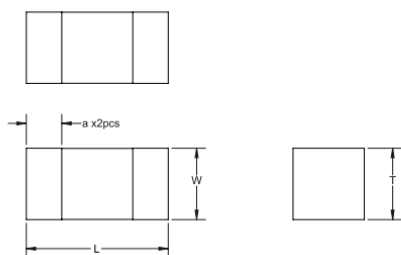
Powering Business Worldwide

Product specifications

Family name	Inductance range (uH)	I Rated current range (mA)	DCR maximum range (Ω) @ +25 °C	Typical SRF range (MHz)	Size L x W x H maximum (mm)
Multilayer					
MCLA1005V2	0.001 - 0.330	50 - 400	0.1 - 7.0	350 - 10000	1.15 x 0.65 x 0.65 [0402 (1005 metric)]
MCLA1608V1	0.047 - 3.9	15 - 50	0.2 - 1.3	35 - 260	1.8 x 1.0 x 1.0 [0603 (1608 metric)]
MCLA1608V2	0.001 - 0.470	150 - 500	0.05 - 3.6	250 - 10000	1.8 x 1.0 x 1.0 [0603 (1608 metric)]
MCLA2012V1	0.047 - 12	15 - 300	0.15 - 1.15	22 - 320	2.2 x 1.4 x 1.1 [0805 (2012 metric)]
MCLA3216V1	0.047 - 12	15 - 300	0.15 - 0.9	22 - 320	3.4 x 1.8 x 1.1 [1206 (3216 metric)]

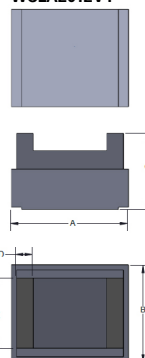
Wire wound

WCLA1005V1	0.001 - 0.120	30 - 1360	0.045 - 2.2	1100 - 10000	1.19 x 0.66 x 0.60 [0402 (1005 metric)]
WCLA1608V1	0.0016 - 0.470	75 - 700	0.04 - 7	700 - 12500	1.78 x 1.10 x 0.95 [0603 (1608 metric)]
WCLA2012V1	0.0022 - 2.2	150 - 800	0.03 - 4.2	50 - 8500	2.30 x 1.70 x 1.52 [0805 (2012 metric)]
WCLA2520V1	0.22 - 47	100 - 1100	0.5 - 8.34	18 - 450	2.90 x 2.50 x 2.10 [1008 (2520 metric)]
WCLA3225V1	0.47 - 680	76 - 800	0.5 - 22	2.3 - 350	3.60 x 2.80 x 2.40 [1210 (3225 metric)]

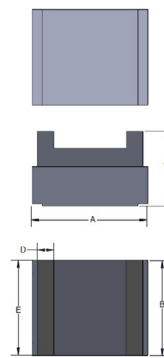


Part number	L	W	T	a
MCLA1005V2-xxx-R	1.0 ±0.15	0.50 ±0.15	0.50 ±0.15	0.25 ±0.10
MCLA1608V1-xxx-R	1.6 ±0.20	0.80 ±0.20	0.80 ±0.20	0.30 ±0.20
MCLA1608V2-xxx-R	1.6 ±0.20	0.80 ±0.20	0.80 ±0.20	0.30 ±0.20
MCLA2012V1-xxx-R	2.0 ±0.20	1.2 ±0.20	0.90 ±0.20	0.50 ±0.30
MCLA3216V1-xxx-R	3.2 ±0.20	1.6 ±0.20	0.90 ±0.20	0.50 ±0.30

WCLA1005V1, WCLA1608V1, WCLA2012V1



WCLA2520V1, WCLA3225V1



Part number	A	B	C	D	E
WCLA1005V1-xxx-R	1.19 max	0.66 max	0.60 max	0.23 ref	0.50 ref
WCLA1608V1-xxx-R	1.78 max	1.10 max	0.95 max	0.30 ref	0.76 ref
WCLA2012V1-xxx-R	2.30 max	1.70 max	1.52 max	0.50 ref	1.27 ref
WCLA2520V1-xxx-R	2.90 max	2.50 max	2.10 max	0.60 ±0.10	2.50 max
WCLA3225V1-xxx-R	3.60 max	2.80 max	2.40 max	0.65±0.10	2.80 max

Tools & resources

- [MCLA Webpage](#)
- [WCLA Webpage](#)
- [Parametric search tool](#)
- [Cross reference search tool](#)
- [Contact us form](#)

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