Inductors

For High Frequency
SMD

MLG Series MLG1608 Type

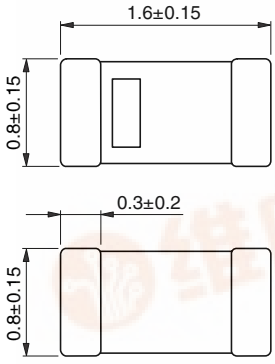
FEATURES

- Supports operating frequency bands of up to 10GHz with nominal inductance values from 1 to 100nH.
- Provides high Q characteristics.
- Advanced monolithic structure is formed using a multilayering and sintering process with ceramic and conductive materials for high-frequency.

APPLICATIONS

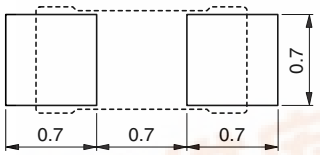
For high-frequency applications including mobile phones, portable phones, cordless phones, pagers and personal handy-phone systems (PHS).

SHAPES AND DIMENSIONS



Weight: 4mg

RECOMMENDED PC BOARD PATTERN

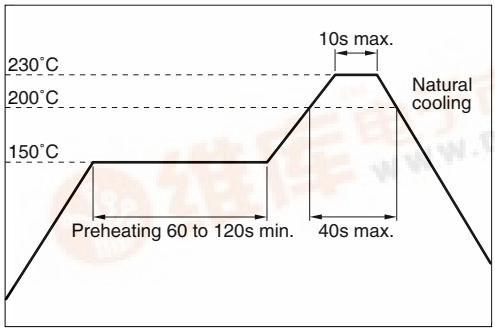


Dimensions in mm

SPECIFICATIONS

Operating temperature range	–25 to +85°C
Storage temperature range	–40 to +85°C [Unit of products]

RECOMMENDED REFLOW SOLDERING CONDITIONS



PRODUCT IDENTIFICATION

MLG	1608	B	2N2	S	T
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions L×W

1608	1.6×0.8mm

(3) Material code

(4) Inductance value

2N2	2.2nH
12N	12nH
39N	39nH

(5) Inductance tolerance

S	±0.3nH
D	±0.5nH
J	±5%

(6) Packaging style

T	Taping (reel)

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

HANDLING AND PRECAUTIONS

- Before soldering, be sure to preheat components.
  The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 260°C. Soldering time should not exceed 3 seconds.

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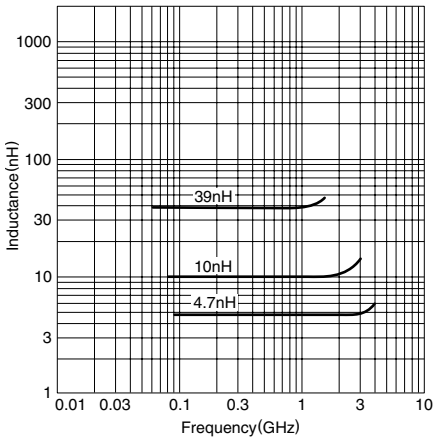
ELECTRICAL CHARACTERISTICS

Inductance (nH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (GHz)min.	DC resistance (Ω)max.	Rated current (mA)max.	Part No.
1	±0.3nH	8	100	10	0.1	300	MLG1608B1N0S
1.2	±0.3nH	8	100	10	0.1	300	MLG1608B1N2S
1.5	±0.3nH	8	100	10	0.1	300	MLG1608B1N5S
1.8	±0.3nH	8	100	9.8	0.1	300	MLG1608B1N8S
2.2	±0.3nH	10	100	7.6	0.15	300	MLG1608B2N2S
2.7	±0.3nH	10	100	7	0.15	300	MLG1608B2N7S
3.3	±0.3nH	10	100	6.2	0.2	300	MLG1608B3N3S
3.9	±0.3nH	10	100	5.6	0.2	300	MLG1608B3N9S
4.7	±0.3nH	10	100	4.8	0.2	300	MLG1608B4N7S
5.6	±0.5nH	10	100	4.6	0.2	300	MLG1608B5N6D
6.8	±0.5nH	10	100	4.2	0.2	300	MLG1608B6N8D
8.2	±0.5nH	10	100	3.6	0.25	300	MLG1608B8N2D
10	±5%	12	100	3.2	0.25	300	MLG1608B10NJ
12	±5%	12	100	2.8	0.3	300	MLG1608B12NJ
15	±5%	12	100	2.6	0.35	300	MLG1608B15NJ
18	±5%	12	100	2.4	0.4	300	MLG1608B18NJ
22	±5%	12	100	2	0.5	300	MLG1608B22NJ
27	±5%	12	100	1.9	0.55	300	MLG1608B27NJ
33	±5%	12	100	1.6	0.6	300	MLG1608B33NJ
39	±5%	12	100	1.4	0.65	300	MLG1608B39NJ
47	±5%	14	100	1.2	0.7	300	MLG1608B47NJ
56	±5%	14	100	1	0.75	300	MLG1608B56NJ
68	±5%	14	100	0.9	0.8	300	MLG1608B68NJ
82	±5%	14	100	0.8	0.9	300	MLG1608B82NJ
100	±5%	14	100	0.7	1	300	MLG1608BR10J

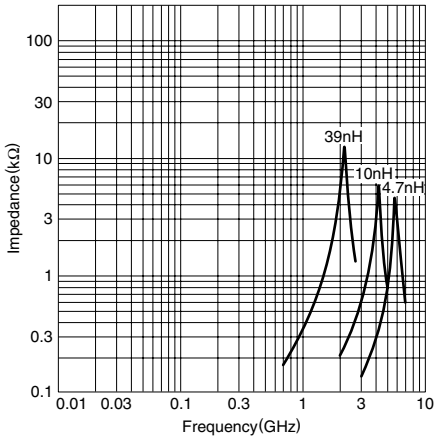
- Test equipment
  Inductance Q : HP4291A+16193A SRF: HP8720C Rdc: YOKOGAWA TYPE7561
- Rated current : Value obtained when current flows and temperature has risen to 20°C.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS