

## SMD Multilayer Ferrite Chip Inductors – GMLI-160808 Series

### Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC ( $\Omega$ ) Max	IDC (mA) Max
GMLI-160808-10N□-CL	0.010	20	15	50	300	0.2	50
GMLI-160808-33N□-CL	0.033	20	15	50	270	0.2	50
GMLI-160808-47N□-CL	0.047	20	15	50	260	0.3	50
GMLI-160808-56N□-CL	0.056	20	15	50	255	0.3	50
GMLI-160808-68N□-CL	0.068	20	15	50	250	0.3	50
GMLI-160808-82N□-CL	0.082	20	15	50	245	0.3	50
GMLI-160808-R10□-CL	0.10	20 / 15 / 10	25	25	240	0.5	50
GMLI-160808-R12□-CL	0.12	20 / 15 / 10	25	25	205	0.5	50
GMLI-160808-R15□-CL	0.15	20 / 15 / 10	25	25	180	0.6	50
GMLI-160808-R18□-CL	0.18	20 / 15 / 10	25	25	165	0.6	50
GMLI-160808-R22□-CL	0.22	20 / 15 / 10	25	25	150	0.8	50
GMLI-160808-R27□-CL	0.27	20 / 15 / 10	25	25	136	0.8	50
GMLI-160808-R33□-CL	0.33	20 / 15 / 10	25	25	125	0.85	35
GMLI-160808-R39□-CL	0.39	20 / 15 / 10	25	25	110	1.00	35
GMLI-160808-R47□-CL	0.47	20 / 15 / 10	25	25	105	1.35	35
GMLI-160808-R56□-CL	0.56	20 / 15 / 10	25	25	95	1.50	35
GMLI-160808-R68□-CL	0.68	20 / 15 / 10	25	25	85	1.70	35
GMLI-160808-R82□-CL	0.82	20 / 15 / 10	25	25	75	2.10	35
GMLI-160808-1R0□-CL	1.0	20 / 15 / 10	35	10	65	0.60	25
GMLI-160808-1R2□-CL	1.2	20 / 15 / 10	35	10	60	0.80	25
GMLI-160808-1R5□-CL	1.5	20 / 15 / 10	35	10	55	0.80	25
GMLI-160808-1R8□-CL	1.8	20 / 15 / 10	35	10	50	0.95	25
GMLI-160808-2R2□-CL	2.2	20 / 15 / 10	35	10	45	1.00	15
GMLI-160808-2R7□-CL	2.7	20 / 15 / 10	35	10	40	1.15	15
GMLI-160808-3R3□-CL	3.3	20 / 15 / 10	35	10	38	1.30	15
GMLI-160808-3R9□-CL	3.9	20 / 15 / 10	35	10	36	1.50	15
GMLI-160808-4R7□-CL	4.7	20 / 15 / 10	35	10	33	1.60	15
GMLI-160808-5R6□-CL	5.6	20 / 15 / 10	35	4	22	1.10	5
GMLI-160808-6R8□-CL	6.8	20 / 15 / 10	35	4	20	1.30	5
GMLI-160808-8R2□-CL	8.2	20 / 15 / 10	30	4	18	1.50	5
GMLI-160808-100□-CL	10	20 / 15 / 10	30	2	17	1.70	5
GMLI-160808-120□-CL	12	20 / 15 / 10	30	2	15	1.80	3
GMLI-160808-150□-CL	15	20 / 15 / 10	20	1	14	1.50	1
GMLI-160808-220□-CL	22	20 / 15 / 10	20	1	11	1.70	1

**Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment :
  - L & Q : HP4291A
  - SRF : Agilent HP8753D/Agilent E4991A
  - RDC : HP4338B or CHEN HWA 502

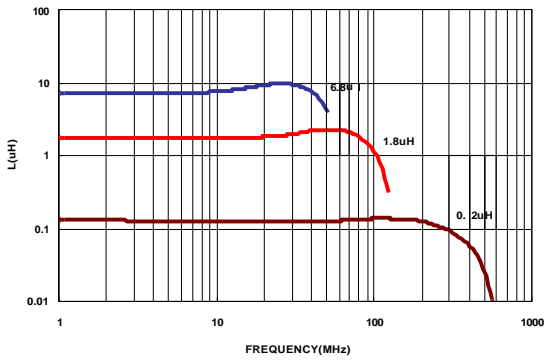


# SMD Multilayer Ferrite Chip Inductors – GMLI Series

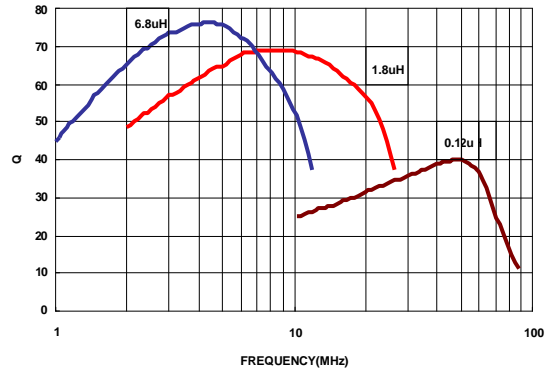
Test Instruments : Agilent E4991A Impedance / Material Analyzer

**GMLI-160808**

INDUCTANCE v s. FREQUENCY CHARACTERISTICS

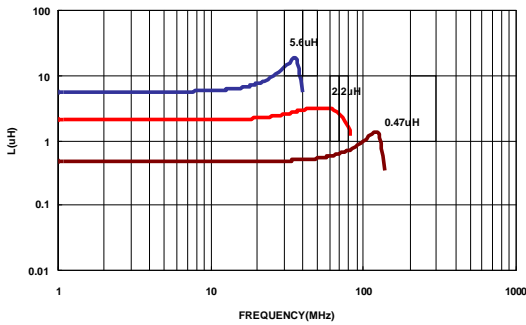


Q vs. FREQUENCY CHARACTERISTICS

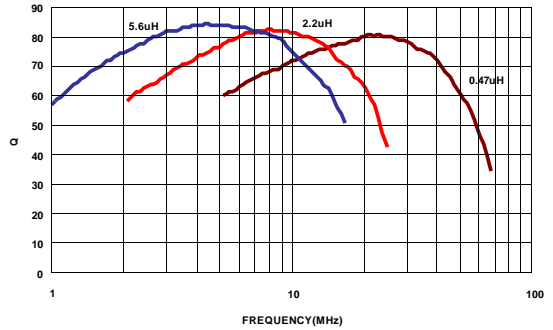


**GMLI-201209/201212**

INDUCTANCE v s. FREQUENCY CHARACTERISTICS

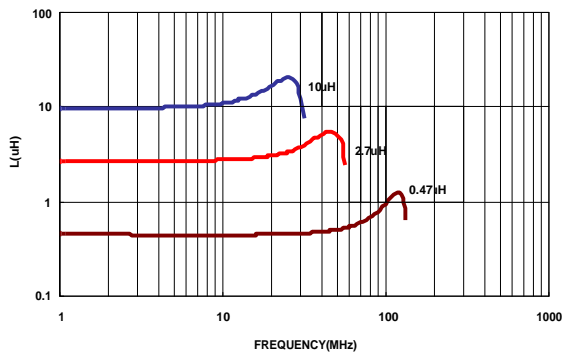


Q vs. FREQUENCY CHARACTERISTICS

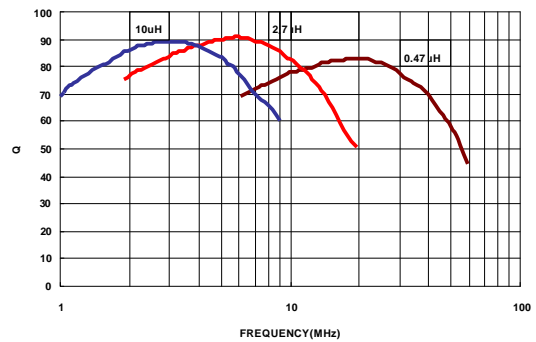


**GMLI-321611**

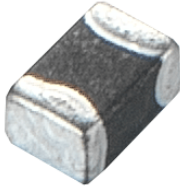
INDUCTANCE v s. FREQUENCY CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS



## GMLI Series



The SMD multi-layered ferrite chip inductors provide a cost-effective solution for densely packed PC board designs. GMLI series comes in 4 sizes and is suitable for low frequency applications.

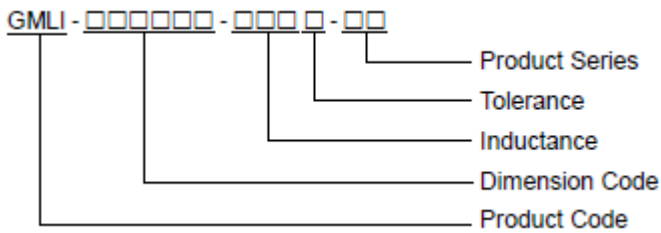
### Features

- RoHS compliant
- High mounting density of compact circuit due to crosstalk elimination that results from a closed magnetic flux in a ferrite material
- Suitable for flow and re-flow soldering
- Available in 4 sizes

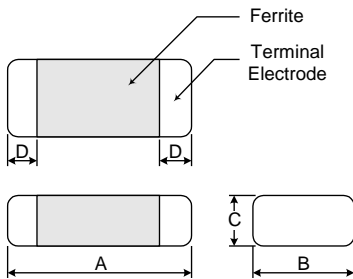
### Applications

- Personal computers, HDDs, other various electronic devices
- Any portable device where compact size and high mounting densities are required

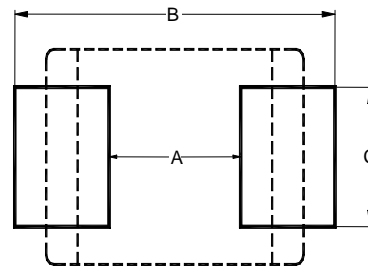
### Product Identification



### Shape and Dimensions



### Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
160808	1.6±0.20	0.80±0.20	0.80±0.20	0.3±0.20
201209	2.0±0.20	1.25±0.20	0.90±0.20	0.5±0.30
201212	2.0±0.20	1.25±0.20	1.25±0.20	0.5±0.30
321611	3.2±0.20	1.60±0.20	1.10±0.20	0.5±0.30

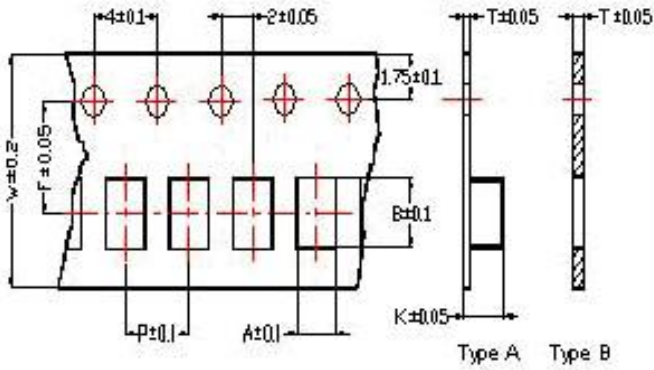
Dimensions in mm

TYPE	A	B	C
160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
321611	2.0	4.2 ~ 5.2	1.2

# SMD Multilayer Ferrite Chip Inductors - GMLI Series

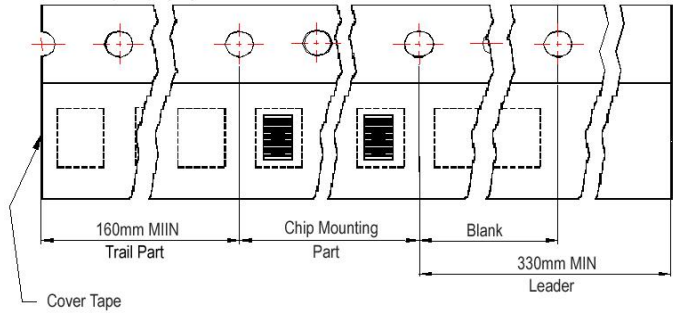
## Packaging Specifications

### Tape Dimensions

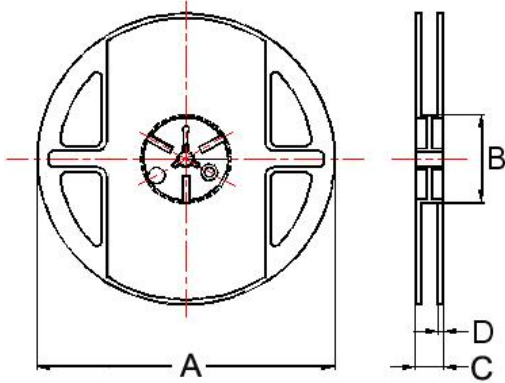


### Tape Material

Carrier Tape: Polycarbonate (Tape A)  
 Carrier Tape: Paper (Tape B)  
 Cover Tape: Polystyrene



### Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	Tape	A	B	C	D	
160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	1.5	3000