

FEATURES

GMLI chip inductors are Mag.Layers line of high quality ferrite chip inductors. Using the latest innovations in multilayer technology, we have developed reliable chip inductors that have high quality characteristics.

High Performance Characteristics

GMLI chips exhibit low DC resistance and high Q at high frequency.

Wide Inductance Range

GMLI chip inductors cover a wide range of inductance values from 0.047 μ H to 33 μ H.

High Reliability

GMLI chip inductors have a monolithic inorganic material construction that effectively minimizes electromagnetic interference.

High Soldering Heat Resistance

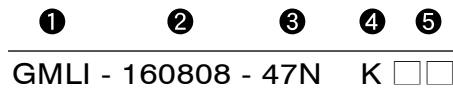
GMLI chip inductors have high quality termination allowing both flow and reflow soldering methods to be used.

APPLICATIONS

GMLI chip inductors can be used in a variety of electronics including:

- CD-ROMs ● Computers
- Hard disks ● Printers
- Modems ● Televisions

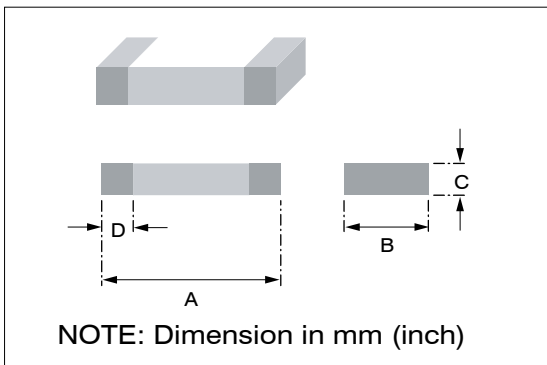
PRODUCT IDENTIFICATION



- ① Product Code
- ② Dimensions (in mm)
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

Code	Tolerance
J	$\pm 5\%$
K	$\pm 10\%$
M	$\pm 20\%$

PRODUCT DIMENSIONS



PRODUCT NO.	A	B	C	D
GMLI-321611 (1206)	3.2 \pm 0.20 (0.126 \pm 0.008)	1.6 \pm 0.20 (0.063 \pm 0.008)	1.1 \pm 0.20 (0.043 \pm 0.008)	0.5 \pm 0.30 (0.020 \pm 0.012)
GMLI-201212 (0805)	2.0 \pm 0.20 (0.079 \pm 0.008)	1.2 \pm 0.20 (0.047 \pm 0.008)	1.2 \pm 0.20 (0.047 \pm 0.008)	0.5 \pm 0.30 (0.020 \pm 0.012)
GMLI-201209 (0805)	2.0 \pm 0.20 (0.079 \pm 0.008)	1.2 \pm 0.20 (0.047 \pm 0.008)	0.9 \pm 0.20 (0.035 \pm 0.008)	0.5 \pm 0.30 (0.020 \pm 0.012)
GMLI-160808 (0603)	1.6 \pm 0.15 (0.063 \pm 0.006)	0.8 \pm 0.15 (0.031 \pm 0.006)	0.8 \pm 0.15 (0.031 \pm 0.006)	0.3 \pm 0.20 (0.012 \pm 0.008)
GMLI-100505 (0402)	1.0 \pm 0.1 (0.039 \pm 0.004)	0.5 \pm 0.1 (0.019 \pm 0.004)	0.5 \pm 0.10 (0.019 \pm 0.004)	0.25 \pm 0.10 (0.095 \pm 0.004)

■ PRODUCT SPECIFICATIONS

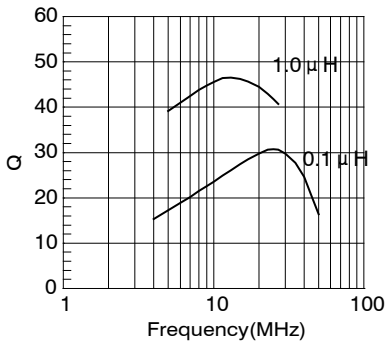
Part Number	INDUCTANCE (μ H)	Q Min.	TEST FREQ. (MHz)	S.R.F.(MHz) Min.	R _{DC} (Ω) Max.	I _{DC} (mA) Max.
GMLI-100505-R12	0.12	10	25	180	0.70	25
GMLI-100505-R15	0.15			165	0.90	
GMLI-100505-R18	0.18			150	1.10	
GMLI-100505-R22	0.22			135	1.30	
GMLI-100505-R27	0.27			120	1.50	
GMLI-100505-R33	0.33			105	1.70	
GMLI-100505-R39	0.39	20	10	85	0.60	10
GMLI-100505-R47	0.47			80	0.70	

■ PRODUCT SPECIFICATIONS

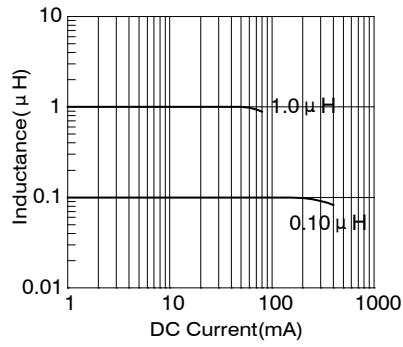
Part Number	INDUCTANCE (μ H)	Q Min.	TEST FREQ. (MHz)	S.R.F.(MHz) Min.	R _{DC} (Ω) Max.	I _{DC} (mA) Max.		
GMLI-160808-47N	0.047	10	50	260	0.30	50		
GMLI-160808-68N	0.068			250				
GMLI-160808-82N	0.082			245				
GMLI-160808-R10	0.10	15	25	240	0.50			
GMLI-160808-R12	0.12			205				
GMLI-160808-R15	0.15			180				
GMLI-160808-R18	0.18			165				
GMLI-160808-R22	0.22			150				
GMLI-160808-R27	0.27			136				
GMLI-160808-R33	0.33			125				
GMLI-160808-R39	0.39			110				
GMLI-160808-R47	0.47			105				
GMLI-160808-R56	0.56			95				
GMLI-160808-R68	0.68			90				
GMLI-160808-R82	0.82			85				
GMLI-160808-1R0	1.00			35	10	75	0.60	25
GMLI-160808-1R2	1.20					65		
GMLI-160808-1R5	1.50					55		
GMLI-160808-1R8	1.80	55						
GMLI-160808-2R2	2.20	50						
GMLI-160808-2R7	2.70	45						
GMLI-160808-3R3	3.30	40						
GMLI-160808-3R9	3.90	35						
GMLI-160808-4R7	4.70	33						
GMLI-160808-5R6	5.60	35	4			22	1.55	5
GMLI-160808-6R8	6.80					20		
GMLI-160808-8R2	8.20					18		
GMLI-160808-100	10.00	30	2			17	1.85	3
GMLI-160808-120	12.00					15		
GMLI-160808-150	15.00					14		
		20	1	14	1.70	1		

TYPICAL ELECTRICAL CHARACTERISTIC CURVES

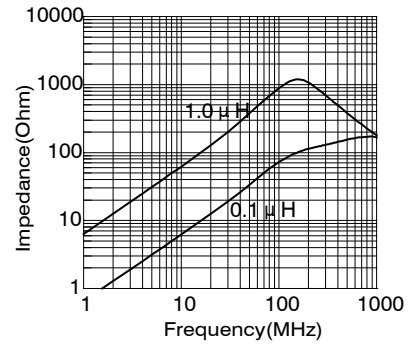
Q vs. Freq. Characteristics



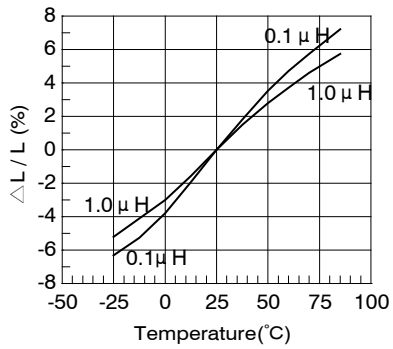
Inductance vs. Current Characteristics



Impedance vs. Freq. Characteristics



Inductance vs. Temp. Characteristics

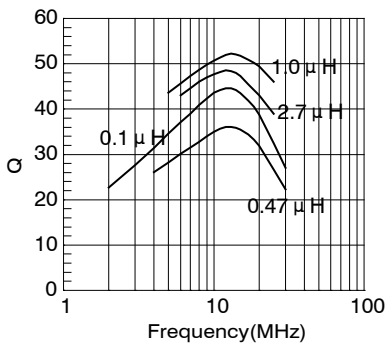


■ TYPICAL ELECTRICAL CHARACTERISTIC CURVES

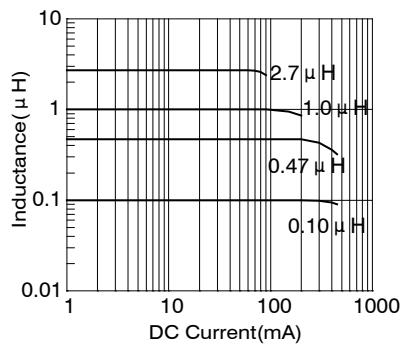
PART NUMBER	INDUCTANCE (μ H)	Q Min.	TEST FREQ. (MHz)	S.R.F.(MHz) Min.	R _{DC} (Ω) Max.	I _{DC} (mA) Max.
GMLI-201209-47N	0.047	15	50	320	0.20	300
GMLI-201209-68N	0.068			280		
GMLI-201209-82N	0.082			255		
GMLI-201209-R10	0.10	20	25	235	0.30	250
GMLI-201209-R12	0.12			220	0.40	
GMLI-201209-R15	0.15			200		
GMLI-201209-R18	0.18			185	0.50	
GMLI-201209-R22	0.22			170		
GMLI-201209-R27	0.27			150		
GMLI-201209-R33	0.33			25	25	
GMLI-201209-R39	0.39	135	0.65			
GMLI-201209-R47	0.47	125	0.65			
GMLI-201209-R56	0.56	115	0.75			
GMLI-201209-R68	0.68	45	10	105	0.80	150
GMLI-201209-R82	0.82			100	1.00	
GMLI-201209-1R0	1.00			75	0.40	
GMLI-201209-1R2	1.20	50	10	65	0.50	50
GMLI-201209-1R5	1.50			60	0.60	
GMLI-201209-1R8	1.80			55		
GMLI-201209-2R2	2.20			50	0.65	
GMLI-201209-2R7	2.70	45	10	45	0.75	30
GMLI-201209-3R3	3.30			41	0.80	
GMLI-201209-3R9	3.90			38	0.90	
GMLI-201212-4R7	4.70	50	4	35	1.00	15
GMLI-201212-5R6	5.60			32	0.90	
GMLI-201212-6R8	6.80			29	1.00	
GMLI-201212-8R2	8.20			26	1.10	
GMLI-201212-100	10.00	30	1	24	1.15	5
GMLI-201212-120	12.00			22	1.25	
GMLI-201212-150	15.00			19	0.80	
GMLI-201212-180	18.00	30	1	18	0.90	5
GMLI-201212-220	22.00			16	1.10	
GMLI-201212-270	27.00			14	1.15	
GMLI-201212-330	33.00		0.4	13	1.25	

TYPICAL ELECTRICAL CHARACTERISTIC CURVES

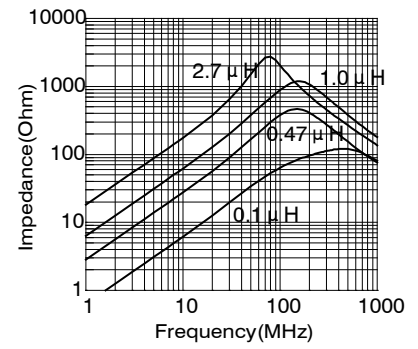
Q vs. Freq. Characteristics



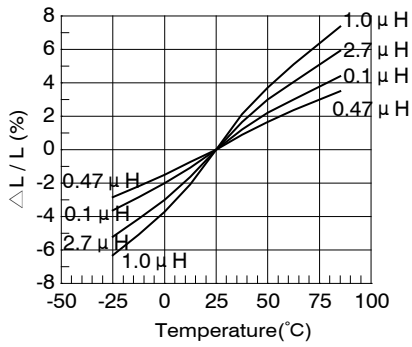
Inductance vs. Current Characteristics



Impedance vs. Freq. Characteristics



Inductance vs. Temp. Characteristics



■ PRODUCT SPECIFICATIONS

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GMLI-321611-47N	0.047	20	50	320	0.15	300			
GMLI-321611-68N	0.068			280	0.25				
GMLI-321611-R10	0.10			235	0.30				
GMLI-321611-R12	0.12			250					
GMLI-321611-R15	0.15		200	0.40					
GMLI-321611-R18	0.18		185						
GMLI-321611-R22	0.22		170		0.50				
GMLI-321611-R27	0.27		150						
GMLI-321611-R33	0.33		25	25	145	0.60	250		
GMLI-321611-R39	0.39				135	0.50			
GMLI-321611-R47	0.47				125	0.60			
GMLI-321611-R56	0.56				115	0.70			
GMLI-321611-R68	0.68				105	0.80			
GMLI-321611-R82	0.82				100	0.90			
GMLI-321611-1R0	1.00	30			10	75		0.40	100
GMLI-321611-1R2	1.20					65		0.50	
GMLI-321611-1R5	1.50					60			
GMLI-321611-1R8	1.80					55		0.60	
GMLI-321611-2R2	2.20		50						
GMLI-321611-2R7	2.70		45						
GMLI-321611-3R3	3.30		41	0.70		50			
GMLI-321611-3R9	3.90		38	0.80					
GMLI-321611-4R7	4.70		35	0.90					
GMLI-321611-5R6	5.60		35	4		32	0.70	25	
GMLI-321611-6R8	6.80	29			0.90				
GMLI-321611-8R2	8.20	26			1.00				
GMLI-321611-100	10.00	24	25						
GMLI-321611-120	12.00	30	2	22	1.05	15			
GMLI-321611-150	15.00			19	0.70	5			

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PART NUMBER	INDUCTANCE (μH)	Q Min.	TEST FREQ. (MHz)	S.R.F.(MHz) Min.	R _{DC} (Ω) Max.	I _{DC} (mA) Max.
GMLI-321611-180	18.00	30	1	18	0.70	5
GMLI-321611-220	22.00			16	0.90	
GMLI-321611-270	27.00			14		
GMLI-321611-330	33.00		0.4	13	1.05	

TYPICAL ELECTRICAL CHARACTERISTIC CURVES

