CHIP COIL

Thin Film Chip Coil **LQP10A/LQP11A** Series for High Frequency

Tight Inductance Tolerance Chip Coil for High Frequency Application Small Size and Tight Inductance Tolerance (±0.2nH or ±2%)

The LQP10A/LQP11A series consists of chip coils with a tight inductance tolerance (±0.2nH or ±2%) achieved even in low inductance region.

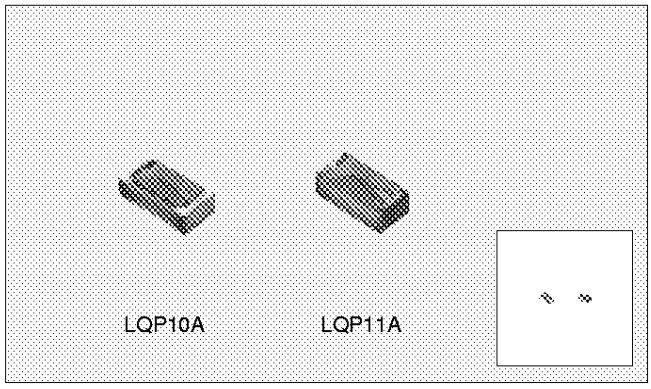
■FEATURES

1. Tight inductance tolerance (±0.2nH, ±2%) realized by thin-film technology enables assemble with no tuning.
2. High self resonant frequency due to low stray capacitance and close inductance distribution provide stable inductance in high frequency circuit such as telecommunication equipment.
3. The external electrodes with nickel barrier structure provide excellent solder heat resistance.

- LQP10A
  Ultra-Small size 0402 inductor which is low, and lightest weight (half of multilayer type) in the world enables to miniaturize mobile telephone.
- LQP11A
  Small size of 0603 (LQP11A) is suitable for small hand held equipment, especially for card size equipment.

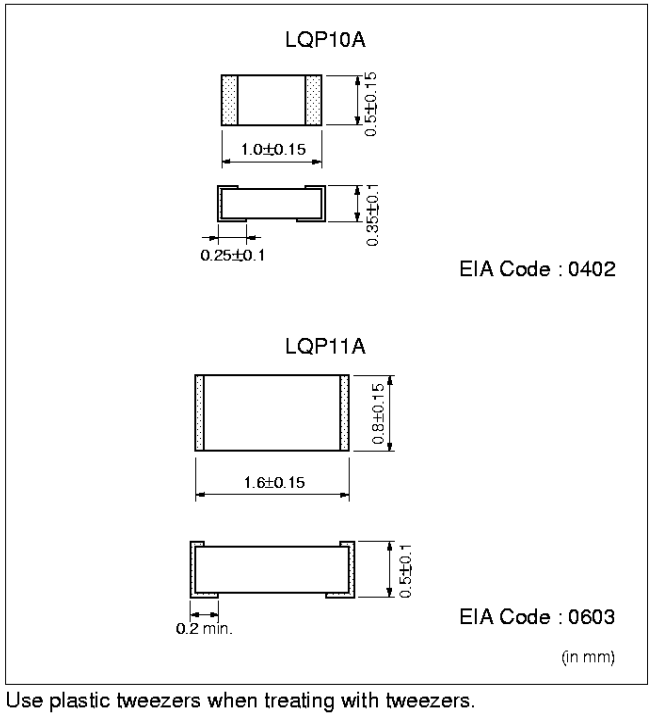
■APPLICATIONS

- High frequency circuit of telecommunication equipment, such as DECT, PHS, PCS, PCN, GSM, DCS and CDMA.
- Impedance Matching—Power-AMP Module (PA), SAW filter
- Resonance circuits—VCO



The appearance of coil pattern depends on the part number.

■DIMENSIONS



Use plastic tweezers when treating with tweezers.

■SPECIFICATIONS

LQG10A

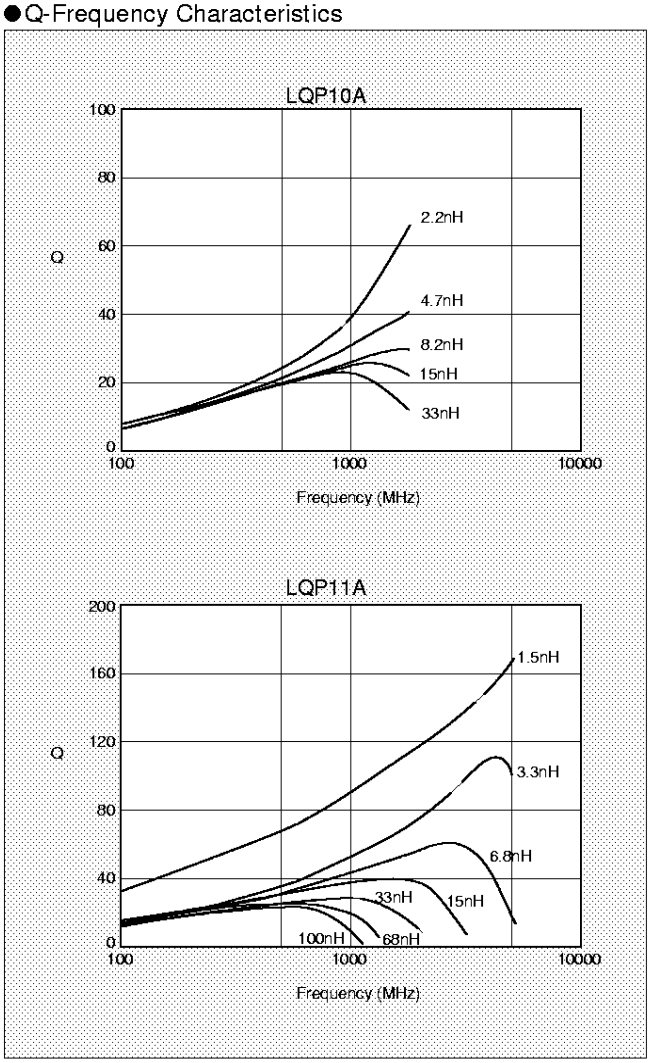
Part Number	Inductance			Q			DC Resistance (Ω max.)	Self-resonant Frequency (MHz min)	Allowable Current (mA)	Operating Temp. Range
	Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Typical @f GHz	Min. Value	Test Frequency (MHz)				
LQP10A1N0B(C)00	1.0	±0.1nH (±0.2nH)	500	50	13	500	0.1	6000	400	−40 to +85℃
LQP10A1N1B(C)00	1.1								390	
LQP10A1N2B(C)00	1.2									
LQP10A1N3B(C)00	1.3			45			0.2		280	
LQP10A1N5B(C)00	1.5									
LQP10A1N6B(C)00	1.6						0.3		220	
LQP10A1N8B(C)00	1.8			40			0.2		280	
LQP10A2N0B(C)00	2.0						0.3		220	
LQP10A2N2B(C)00	2.2									
LQP10A2N4B(C)00	2.4			35						
LQP10A2N7B(C)00	2.7									
LQP10A3N0B(C)00	3.0			30			0.4		190	
LQP10A3N3B(C)00	3.3									
LQP10A3N6B(C)00	3.6			28			0.5		170	
LQP10A3N9B(C)00	3.9									
LQP10A4N3B(C)00	4.3			29			0.6		160	
LQP10A4N7B(C)00	4.7									
LQP10A5N1B(C)00	5.1			26			0.7		140	
LQP10A5N6B(C)00	5.6									
LQP10A6N2B(C)00	6.2						0.9		130	
LQP10A6N8B(C)00	6.8									
LQP10A7N5B(C)00	7.5						1.1	5500	110	
LQP10A8N2B(C)00	8.2									
LQP10A9N1B(C)00	9.1			25			1.3	4500	100	
LQP10A10NG(J)00	10	±2% (±5%)								
LQP10A12NG(J)00	12						1.6	3700	90	
LQP10A15NG(J)00	15						1.8	3300		
LQP10A18NG(J)00	18			22			2.0	3100	80	
LQP10A22NG(J)00	22			21			2.6	2800	70	
LQP10A27NG(J)00	27						3.1	2500		
LQP10A33NG(J)00	33						3.8	2100	60	

LQG11A

Part Number	Inductance			Q			DC Resistance (Ω max.)	Self-resonant Frequency (MHz min)	Allowable Current (mA)	Operating Temp. Range
	Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Peak Value (Typ.)	Min. Value	Test Frequency (MHz)				
LQP11A1N3C00	1.3	±0.2nH	500	160	17	500	0.3	6000	300	−40 to +85℃
LQP11A1N5C00	1.5			140						
LQP11A1N8C00	1.8			120			0.4		250	
LQP11A2N2C00	2.2			100						
LQP11A2N7C00	2.7			90						
LQP11A3N3C00	3.3			85						
LQP11A3N9C00	3.9			80			0.5	5900	200	
LQP11A4N7C00	4.7			75				5200		
LQP11A5N6C00	5.6			65			0.6	4700		
LQP11A6N8C00	6.8			63			0.7	4300		
LQP11A8N2C00	8.2			57			0.8	3600	150	
LQP11A10NG00	10	±2%		55			1.0	3400		
LQP11A12NG00	12			50				3000		
LQP11A15NG00	15			43			1.3	2700		
LQP11A18NG00	18			39			1.5	2300	100	
LQP11A22NG00	22			38			1.9	2100		
LQP11A27NG00	27			32			2.4	1900		
LQP11A33NG00	33			30			2.8	1700		
LQP11A39NG00	39			28				1400		
LQP11A47NG00	47			26		300	2.2	1200		
LQP11A56NG00	56			28			3.4	1000	50	
LQP11A68NG00	68			27			3.5	900		
LQP11A82NG00	82						4.6	800		
LQP11AR10G00	100			25			6.1	700		

■TYPICAL ELECTRICAL CHARACTERISTICS

● Q-Frequency Characteristics



● Inductance - Frequency Characteristics