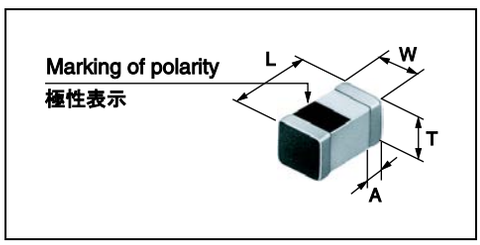
LL1005-FHL

Inductance Range: 1.0~100nH (E-24 Series)、個別対応品order production available (1.1nH, 1.3nH, 1.6nH, 2.0nH, 2.4nH, 3.0nH, 3.6nH, 4.3nH, 5.1nH, 6.2nH, 7.5nH, 9.1nH)
Temperature Coefficient of L: + 250ppm/°C (for reference only)



Inductance	Length L (mm)	Width W (mm)	Thickness T (mm)	Electrode width A (mm)
1.0 ~ 68nH	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.25 ± 0.1
82 ~ 100nH	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.1	0.25 ± 0.1

- **Marking of polarity:** Marking is on the upper Surface of the unit.
- **極性表示:** 磁束方向を示します。この表示が、常に上を向くようにテーピングされています。

FEATURES　特長

- Dual frequency standard for inductance value
- Tight tolerance physical dimensions (±0.05mm)
- Supports high temperature reflow soldering (260°C, 3 times)
- Expanding operating temperature range (−55°C~+125°C)
- Extended applicable frequency range (~10GHz)
- Surface mounting applicability (Supports reflow soldering)
- High reliability (ceramic integrated structure, and terminals plated)
- RoHS compliant

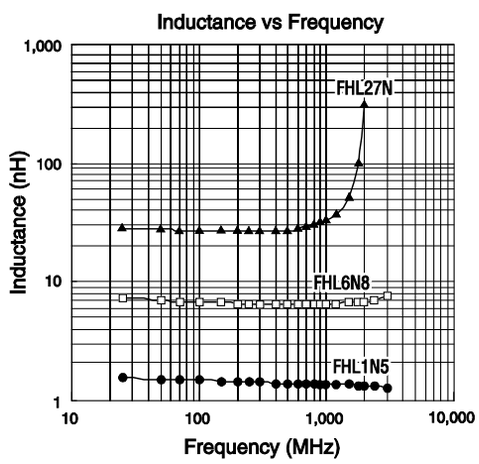
- インダクタンス値の２周波規格化
- 外形寸法の狭公差化（±0.05mm）
- 高温リフロー対応可（260°C ×３回）
- 使用温度範囲の拡大化（－55°C～＋125°C）
- 高周波適用性の拡大化（～10GHz）
- 面実装適用性（リフロー対応）
- 高信頼性（セラミック一体構造、およびめっき端子電極）
- RoHS指令対応

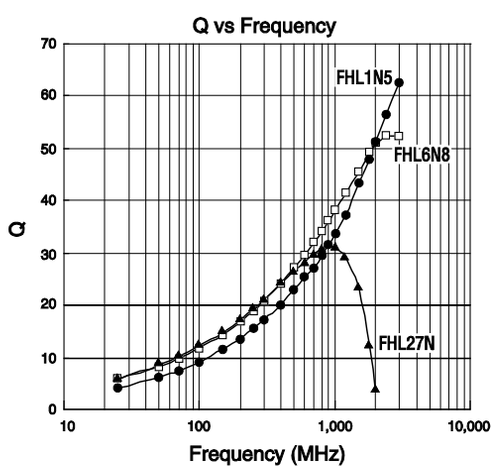
ELECTRICAL CHARACTERISTICS　電気的特性

• Inductance Range	1.0~100nH (E-24 Series)
• Inductance Tolerance	S ; ± 0.3nH (1.0~6.2nH) J ; ± 5% (6.8~100nH)
• Q (Typical)	15~35 (at 800MHz)
• Rated Current	200~500mA
• Inductance Temperature Coefficient (for reference only)	+250ppm/°C
• Operating Temperature Range	-55°C~+ 125°C
• Storage Temperature Range	-55°C~+ 125°C

• インダクタンス範囲	1.0～100nH (E-24 Series)
• インダクタンス許容差	S級; ±0.3nH (1.0～6.2nH) J級 ; ±5% (6.8～100nH)
• Q (Typical)	15 ~ 35 (at 800MHz)
• 許容電流値	200～500mA
• インダクタンス温度係数(参考値)	＋250ppm/°C
• 使用温度範囲	－55°C～＋125°C
• 保存温度範囲	－55°C～＋125°C

EXAMPLES OF CHARACTERISTICS　代表特性例





continued on next page　次頁へ続く

continued from previous page 前頁より続く

STANDARD PART NUMBERS 標準品一覧

LL1005-FHL Series (Quantity/reel; 10,000 PCS)

Part number	Inductance & Tolerance		Q Min.	Q Typical							S.R.F. (MHz) Min.	R_{DC} (Ω) Max.	R_{DC} (Ω) Typ.	I_{DC} (mA) Max.
	100MHz	800MHz (**500MHz)	100 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz	1800 MHz	2400 MHz				
LL1005-FHL1N0S	1.0±0.3nH	0.93±0.5nH	8.0	8.8	17.0	22.0	29.0	33.0	47.0	57.0	20000	0.10	0.07	500
*LL1005-FHL1N1S	1.1±0.3nH	1.0±0.5nH	8.0	9.0	16.0	21.0	27.0	30.0	43.0	53.0	16000	0.10	0.07	500
LL1005-FHL1N2S	1.2±0.3nH	1.1±0.5nH	8.0	9.0	17.0	22.0	28.0	32.0	46.0	55.0	16000	0.10	0.07	500
*LL1005-FHL1N3S	1.3±0.3nH	1.2±0.5nH	8.0	9.0	17.0	22.0	28.0	32.0	45.0	54.0	12000	0.11	0.07	500
LL1005-FHL1N5S	1.5±0.3nH	1.4±0.5nH	8.0	9.2	17.0	23.0	29.0	33.0	47.0	57.0	12000	0.13	0.08	500
*LL1005-FHL1N6S	1.6±0.3nH	1.5±0.5nH	8.0	10.0	17.0	23.0	29.0	33.0	46.0	55.0	12000	0.13	0.08	500
LL1005-FHL1N8S	1.8±0.3nH	1.7±0.5nH	8.0	9.1	16.0	22.0	28.0	32.0	44.0	53.0	12000	0.14	0.08	500
*LL1005-FHL2N0S	2.0±0.3nH	1.9±0.5nH	8.0	10.0	18.0	23.0	30.0	34.0	46.0	53.0	11000	0.14	0.08	500
LL1005-FHL2N2S	2.2±0.3nH	2.0±0.5nH	8.0	10.0	18.0	24.0	31.0	34.0	48.0	55.0	11000	0.15	0.09	500
*LL1005-FHL2N4S	2.4±0.3nH	2.2±0.5nH	8.0	11.0	18.0	24.0	31.0	35.0	49.0	54.0	8100	0.15	0.09	500
LL1005-FHL2N7S	2.7±0.3nH	2.5±0.5nH	8.0	10.0	18.0	24.0	31.0	35.0	50.0	58.0	8100	0.15	0.10	500
*LL1005-FHL3N0S	3.0±0.3nH	2.9±0.5nH	8.0	10.0	18.0	24.0	31.0	35.0	49.0	54.0	7700	0.15	0.10	500
LL1005-FHL3N3S	3.3±0.3nH	3.1±0.5nH	8.0	10.0	18.0	24.0	30.0	34.0	47.0	54.0	7700	0.16	0.10	500
*LL1005-FHL3N6S	3.6±0.3nH	3.4±0.5nH	8.0	10.0	18.0	24.0	30.0	34.0	46.0	52.0	6200	0.16	0.11	500
LL1005-FHL3N9S	3.9±0.3nH	3.7±0.5nH	8.0	10.0	18.0	24.0	31.0	36.0	48.0	55.0	6200	0.18	0.12	500
*LL1005-FHL4N3S	4.3±0.3nH	4.1±0.5nH	8.0	10.0	18.0	24.0	30.0	34.0	46.0	50.0	6000	0.18	0.12	400
LL1005-FHL4N7S	4.7±0.3nH	4.4±0.5nH	9.0	11.0	19.0	24.0	31.0	35.0	47.0	52.0	6000	0.20	0.13	400
*LL1005-FHL5N1S	5.1±0.3nH	4.8±0.5nH	9.0	11.0	19.0	25.0	31.0	35.0	45.0	49.0	5300	0.20	0.14	400
LL1005-FHL5N6S	5.6±0.3nH	5.3±0.5nH	9.0	12.0	21.0	27.0	35.0	39.0	50.0	53.0	5100	0.22	0.15	400
*LL1005-FHL6N2S	6.2±0.3nH	6.0±0.5nH	9.0	12.0	21.0	27.0	34.0	38.0	50.0	54.0	4700	0.22	0.15	400
LL1005-FHL6N8J	6.8nH±5%	6.5nH±10%	9.0	12.0	21.0	27.0	34.0	38.0	49.0	52.0	4700	0.23	0.16	400
*LL1005-FHL7N5J	7.5nH±5%	7.3nH±10%	9.0	12.0	21.0	27.0	34.0	38.0	46.0	46.0	4200	0.23	0.16	400
LL1005-FHL8N2J	8.2nH±5%	7.9nH±10%	9.0	12.0	21.0	27.0	33.0	37.0	46.0	46.0	4000	0.25	0.17	400
*LL1005-FHL9N1J	9.1nH±5%	8.9nH±10%	9.0	11.0	19.0	25.0	31.0	34.0	40.0	36.0	3600	0.26	0.18	400
LL1005-FHL10NJ	10nH±5%	9.7nH±10%	9.0	12.0	20.0	26.0	33.0	36.0	43.0	39.0	3600	0.30	0.19	400
LL1005-FHL12NJ	12nH±5%	12nH±10%	9.0	12.0	20.0	25.0	31.0	33.0	33.0	23.0	2800	0.40	0.21	300
LL1005-FHL15NJ	15nH±5%	15nH±10%	9.0	12.0	20.0	25.0	30.0	32.0	27.0	−	2500	0.50	0.26	300
LL1005-FHL18NJ	18nH±5%	18nH±10%	10.0	12.0	21.0	26.0	31.0	33.0	27.0	−	2300	0.60	0.44	300
LL1005-FHL22NJ	22nH±5%	23nH±10%	10.0	12.0	20.0	25.0	30.0	31.0	18.0	−	2100	0.70	0.50	300
LL1005-FHL27NJ	27nH±5%	30nH±10%	10.0	12.0	21.0	26.0	31.0	31.0	12.0	−	1700	0.85	0.52	300
LL1005-FHL33NJ	33nH±5%	36nH±10%	10.0	12.0	19.0	24.0	27.0	27.0	−	−	1700	1.00	0.70	200
LL1005-FHL39NJ	39nH±5%	44nH±10%	10.0	12.0	20.0	24.0	26.0	26.0	−	−	1600	1.10	0.80	200
LL1005-FHL47NJ	47nH±5%	**50nH±10%	10.0	11.0	18.0	21.0	21.0	18.0	−	−	1200	1.30	0.93	200
LL1005-FHL56NJ	56nH±5%	**60nH±10%	10.0	12.0	19.0	22.0	20.0	16.0	−	−	1100	1.50	1.20	200
LL1005-FHL68NJ	68nH±5%	**77nH±10%	10.0	11.0	18.0	20.0	18.0	13.0	−	−	1100	1.70	1.25	200
LL1005-FHL82NJ	82nH±5%	**95nH±10%	10.0	13.0	20.0	21.0	15.0	−	−	−	970	1.90	1.26	200
LL1005-FHLR10J	100nH±5%	**122nH±10%	10.0	13.0	19.0	19.0	−	−	−	−	870	2.20	1.45	200

Note : (1)Add tolerance to part number; B=±0.1nH, C=±0.2nH, G=±2%, T=±3%
(2)* Sign shows the order production product number. Please demand each product number because it is not a regular product number of the sample kit.
(3)Please be sure that carefully discuss your planned purchase with our sales division if you intend to use the automotive products for LL1005-FHL82NJ and LL1005-FHLR10J.

注 : (1)上表以外のインダクタンス値及び許容差(C級±0.2nH, T級±3%, B級±0.1nH, G級±2%)もご要望により用意いたします。
(2)*印の品番は個別対応品です。サンプルキット等には入っておりませんので品番毎にご要求下さい。
(3)LL1005-FHL82NJ及びLL1005-FHLR10Jの車載用途でのご使用をご検討の場合は、必ず事前に当社営業窓口までご相談ください。

●Test Equipment & note

（測定器／注意事項）

- L, Q : RF Impedance Analyzer 4291A/B (Agilent Technologies), Test Fixture 16192A (Agilent Technologies)
- Q at 2400MHz : RF Impedance Analyzer E4991A (Agilent Technologies), Test Fixture 16192A (Agilent Technologies)
- S.R.F.／自己共振周波数 : Network Analyzer 8719D (Agilent Technologies), 8720D (Agilent Technologies)
- R_{DC}／直流抵抗 : Milliohmmeter 4338A/B (Agilent Technologies)
- Inductance tolerance／インダクタンス許容差 : S=±0.3nH, J=±5%
- Operating temperature range／使用温度範囲 : -55°C ~ + 125°C
- Storage temperature range／保存温度範囲 : -55°C ~ + 125°C