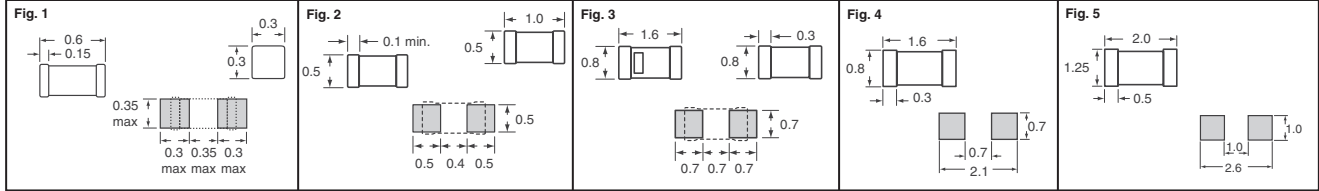


**MLK Series:** Supports operating frequency bands of up to 12GHz with nominal inductance values from 1 – 100nH. Provides high Q characteristics. Advanced monolithic structure is formed using a lamination and firing process with high-frequency ceramic and conductive materials. Because the part is non-polarized, it can be used in bulk cassette loaders. **Operating Temperature:** -25°C – 85°C **MLF Series - Magnetic Shielded Inductor:** TDK's MLF multi-layer chip inductor combines high performance with the most compact design available today. MLF inductor's multi-layer technology utilizes ferrite paste and electric conductor paste layered in a monolithic structure. Sintering of ferrite and electric conductors forms a perfect closed magnetic circuit and a magnetic shield. Magnetic shielding is ideally suited for high density circuit application in disk drives, personal computers, measuring equipment, and telephone equipment. **Operating Temperature:** -25°C – 85°C **GLF Series:** Features: • Delivers low Rdc with high Idc • Construction supports bulk mounting **Applications:** Perfect coil for step-up circuits, step-down circuits and decoupling circuits for each set power supply circuit • Portable audio visual devices • Mobile communication devices • Information devices (GLF1608) • Amusement devices (GLF1608) **Operating**

**Temperature:** -40°C – 105°C **GLCR and GLFR Series:** Features: • Delivers low Rdc with high Idc • Able to withstand high temperature reflows (260°C during peak) used in lead free soldering **Applications:** • Portable audio visual devices • Mobile communication devices • Information devices **Operating Temperature:** -40°C – 105°C **MLG Series:** Supports operating frequency bands of up to 10GHz with nominal inductance values from 0.6 – 390nH. Provides high Q characteristics. Advanced monolithic structure is formed using a lamination and firing process with high-frequency ceramic and conductive materials. **Operating Temperature:** (MLG1005S, MLG0603S and MLG0603D) -55°C – 125°C; (MLG1608) -25°C – 85°C **MLZ Series:** This is a multi-layered inductor primarily designed for choking power lines. With one of the best resistance performance in the industry, this product delivers a significantly lower DC resistance value compared to our previous products. This reduces the loss at the power supply and contributes to power conservation. **Applications:** Choke coil to use for DVC, DSC, MD, power supply circuit such as various module. **Operating Temperature:** -55°C – 125°C

Dimensions in mm



Inductance (nH)	Inductance Tolerance	Test Freq. (MHz)	DC Res. Max. (Ω)	Rated Current Max. (mA)	SRF Min. (GHz)	Digi-Key Part No.	Cut Tape Pricing			Tape and Reelf Pricing 15,000	TDK Part No.
							1	10	100		
<b>Fig. 1 — MLK0603 (0201)</b>											
1.0	±0.3nH	100	0.20	300	12.0	445-1570-1-ND	.18	1.47	11.76	51.00/M	MLK0603L1N0S
1.2	±0.3nH	100	0.22	300	11.0	445-1571-1-ND	.18	1.47	11.76	51.00/M	MLK0603L1N2S
1.5	±0.3nH	100	0.24	300	10.0	445-1572-1-ND	.18	1.47	11.76	51.00/M	MLK0603L1N5S
1.8	±0.3nH	100	0.27	300	10.0	445-1573-1-ND	.18	1.47	11.76	51.00/M	MLK0603L1N8S
2.2	±0.3nH	100	0.30	300	9.0	445-1574-1-ND	.18	1.47	11.76	51.00/M	MLK0603L2N2S
2.7	±0.3nH	100	0.35	300	8.5	445-1575-1-ND	.18	1.47	11.76	51.00/M	MLK0603L2N7S
3.3	±0.3nH	100	0.40	200	8.0	445-1576-1-ND	.18	1.47	11.76	51.00/M	MLK0603L3N3S
3.9	±0.3nH	100	0.45	200	8.0	445-1577-1-ND	.18	1.47	11.76	51.00/M	MLK0603L3N9S
4.7	±0.3nH	100	0.50	200	7.5	445-1578-1-ND	.18	1.47	11.76	51.00/M	MLK0603L4N7S
5.6	±0.3nH	100	0.60	200	6.5	445-1579-1-ND	.18	1.47	11.76	51.00/M	MLK0603L5N6S
6.8	±5%	100	0.65	200	6.0	445-1580-1-ND	.18	1.47	11.76	51.00/M	MLK0603L6N8J
8.2	±5%	100	0.70	200	6.0	445-1581-1-ND	.18	1.47	11.76	51.00/M	MLK0603L8N2J
10	±5%	100	0.80	200	5.5	445-1582-1-ND	.18	1.47	11.76	51.00/M	MLK0603L10NJ
12	±5%	100	1.00	150	5.0	445-1583-1-ND	.18	1.47	11.76	51.00/M	MLK0603L12NJ
15	±5%	100	1.10	150	4.5	445-1584-1-ND	.18	1.47	11.76	51.00/M	MLK0603L15NJ
18	±5%	100	1.30	100	4.0	445-1585-1-ND	.18	1.47	11.76	51.00/M	MLK0603L18NJ
22	±5%	100	1.60	100	3.5	445-1586-1-ND	.18	1.47	11.76	51.00/M	MLK0603L22NJ

Inductance (nH)	Inductance Tolerance	Test Freq. (MHz)	DC Res. Max. (Ω)	Rated Current Max. (mA)	SRF Min. (GHz)	Digi-Key Part No.	Cut Tape Pricing			Tape and Reelf Pricing 10,000	TDK Part No.
							1	10	100		
<b>Fig. 2 — MLK1005 (0402)</b>											
1.2	±0.3nH	100	0.12	500	11	445-1456-1-ND	.15	1.22	9.72	42.53/M	MLK1005S1N2S
1.5	±0.3nH	100	0.15	500	9.5	445-1457-1-ND	.15	1.22	9.72	42.53/M	MLK1005S1N5S
1.8	±0.3nH	100	0.17	500	8.5	445-1458-1-ND	.15	1.22	9.72	42.53/M	MLK1005S1N8S
2.2	±0.3nH	100	0.18	500	8	445-1459-1-ND	.15	1.22	9.72	42.53/M	MLK1005S2N2S
2.7	±0.3nH	100	0.20	500	7.5	445-1460-1-ND	.15	1.22	9.72	42.53/M	MLK1005S2N7S
3.3	±0.3nH	100	0.22	500	7	445-1461-1-ND	.15	1.22	9.72	42.53/M	MLK1005S3N3S
3.9	±0.3nH	100	0.25	400	6.5	445-1462-1-ND	.15	1.22	9.72	42.53/M	MLK1005S3N9S
4.7	±0.3nH	100	0.28	400	6	445-1463-1-ND	.15	1.22	9.72	42.53/M	MLK1005S4N7S
5.6	±0.5nH	100	0.30	400	5.7	445-1464-1-ND	.15	1.22	9.72	42.53/M	MLK1005S5N6D
6.8	±0.5nH	100	0.35	400	5.5	445-1465-1-ND	.15	1.22	9.72	42.53/M	MLK1005S6N8D
8.2	±0.5nH	100	0.38	350	5	445-1466-1-ND	.15	1.22	9.72	42.53/M	MLK1005S8N2D
10	±5%	100	0.42	350	4.7	445-1467-1-ND	.15	1.22	9.72	42.53/M	MLK1005S10NJ
12	±5%	100	0.47	350	4.3	445-1468-1-ND	.15	1.22	9.72	42.53/M	MLK1005S12NJ
15	±5%	100	0.50	300	4	445-1469-1-ND	.15	1.22	9.72	42.53/M	MLK1005S15NJ
18	±5%	100	0.60	250	3.7	445-1470-1-ND	.15	1.22	9.72	42.53/M	MLK1005S18NJ
22	±5%	100	0.70	200	3.5	445-1471-1-ND	.15	1.22	9.72	42.53/M	MLK1005S22NJ
27	±5%	100	0.80	200	3	445-1472-1-ND	.15	1.22	9.72	42.53/M	MLK1005S27NJ
33	±5%	100	0.90	200	2.5	445-1473-1-ND	.15	1.22	9.72	42.53/M	MLK1005S33NJ
37	±5%	100	1.20	200	1.8	445-1475-1-ND	.15	1.22	9.72	42.53/M	MLK1005S47NJ
56	±5%	100	1.30	200	1.5	445-1476-1-ND	.15	1.22	9.72	42.53/M	MLK1005S56NJ
68	±5%	100	1.50	150	1.4	445-1477-1-ND	.15	1.22	9.72	42.53/M	MLK1005S68NJ
82	±5%	100	1.80	150	1.3	445-1478-1-ND	.15	1.22	9.72	42.53/M	MLK1005S82NJ
100	±5%	100	2.20	100	1.1	445-1479-1-ND	.15	1.22	9.72	42.53/M	MLK1005S10J

Inductance (nH)	Inductance Tolerance	Test Freq. (MHz)	DC Res. Max. (Ω)	Rated Current Max. (mA)	SRF Min. (GHz)	Digi-Key Part No.	Cut Tape Pricing			Tape and Reelf Pricing 2,000	TDK Part No.
							1	10	100		
<b>Fig. 2 — MLF1005 (0402)</b>											
0.1	±10%	25	0.60	25	0.45	445-3502-1-ND	60	5.00	40.00	175.00/M	MLF1005DR10KT
0.12	±10%	25	0.70	25	0.40	445-3503-1-ND	60	5.00	40.00	175.00/M	MLF1005DR12KT
0.15	±10%	25	0.80	25	0.35	445-3504-1-ND	60	5.00	40.00	175.00/M	MLF1005DR15KT
0.18	±10%	25	0.90	25	0.32	445-3505-1-ND	60	5.00	40.00	175.00/M	MLF1005DR18KT
0.22	±10%	25	1.10	25	0.29	445-3506-1-ND	60	5.00	40.00	175.00/M	MLF1005DR22KT
0.27	±10%	25	1.30	25	0.26	445-3507-1-ND	60	5.00	40.00	175.00/M	MLF1005DR27KT
0.33	±10%	25	1.50	25	0.23	445-3508-1-ND	60	5.00	40.00	175.00/M	MLF1005DR33KT
0.39	±10%	10	0.60	10	0.21	445-3509-1-ND	60	5.00	40.00	175.00/M	MLF1005AR39KT
0.47	±10%	10	0.65	10	0.19	445-3510-1-ND	60	5.00	40.00	175.00/M	MLF1005AR47KT
0.56	±10%	10	0.70	10	0.17	445-3511-1-ND	60	5.00	40.00	175.00/M	MLF1005AR56KT
0.68	±10%	10	0.80	10	0.15	445-3512-1-ND	60	5.00	40.00	175.00/M	MLF1005AR68KT
0.82	±10%	10	0.90	10	0.13	445-3513-1-ND	60	5.00	40.00	175.00/M	MLF1005AR82KT
1.0	±10%	10	1.00	10	0.12	445-3514-1-ND	60	5.00	40.00	175.00/M	MLF1005A1R0KT
1.2	±10%	10	1.10	10	0.11	445-3515-1-ND	60	5.00	40.00	175.00/M	MLF1005A1R2KT
1.5	±10%	10	1.30	10	0.10	445-3516-1-ND	60	5.00	40.00	175.00/M	MLF1005A1R5KT
1.8	±10%	10	1.55	10	0.09	445-3517-1-ND	60	5.00	40.00	175.00/M	MLF1005A1R8KT
2.2	±10%	10	1.80	10	0.08	445-3518-1-ND	60	5.00	40.00	175.00/M	MLF1005A2R2KT

Inductance (µH)	Inductance Tolerance	Test Freq. (MHz)	DC Res. Max. (Ω)	Rated Current Max. (mA)	SRF Min. (MHz)	Digi-Key Part No.	Cut Tape Pricing			Tape and Reelf Pricing 4,000	TDK Part No.
							1	10	100		
<b>Fig. 4 — MLF1608 (0603)</b>											
0.047	±20%	50	0.20	200	600	445-1000-1-ND	.41	3.40	27.20	119.00/M	MLF1608D47NM
0.068	±20%	50	0.30	200	550	445-1001-1-ND	.41	3.40	27.20	119.00/M	MLF1608D68NM
0.082	±20%	50	0.30	200	500	445-1002-1-ND	.41	3.40	27.20	119.00/M	MLF1608D82NM
0.1	±10%	25	0.35	200	450	445-1003-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR10K
0.12	±10%	25	0.40	200	400	445-1004-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR12K
0.15	±10%	25	0.45	200	350	445-1005-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR15K
0.18	±10%	25	0.50	150	320	445-1006-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR18K
0.22	±10%	25	0.55	150	290	445-1007-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR22K
0.27	±10%	25	0.60	150	260	445-1008-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR27K
0.33	±10%	25	0.75	100	230	445-1009-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR33K
0.39	±10%	25	0.85	100	210	445-1010-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR39K
0.47	±10%	25	0.95	100	190	445-1011-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR47K
0.56	±10%	25	1.05	100	170	445-1012-1-ND	.41	3.40	27.20	119.00/M	MLF1608DR56K
0.68	±10%	25	1.25	70	150	445-1013-1-ND	.41	3.45	27.56	120.58/M	MLF1608DR68K
1.2	±10%	10	0.65	50	110	445-1014-1-ND	.41	3.40	27.20	119.00/M	MLF1608A1R2K
1.5	±10%	10	0.70	50	100	445-1015-1-ND	.41	3.40	27.20	119.00/M	MLF1608A1R5K
1.8	±10%	10	0.85	50	90	445-1016-1-ND	.41	3.40	27.20	119.00/M	MLF16