

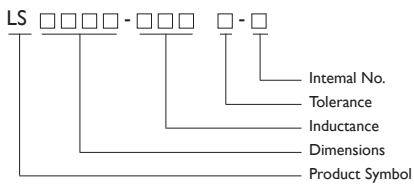
Wire Wound Ferrite Chip Inductors

LS Series

Open Type / For High Frequency & Low Loss Applications



PRODUCT IDENTIFICATION

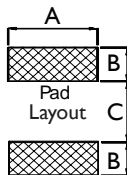


■ Tolerance : J=±5% ; K= ±10%

■ YAGEO will start to release lead-free that meet SONY SS-00259's criteria, and Internal No. will be changed to "N" as identification.

Ex. LS0603-R47 □-N

RECOMMENDED PATTERN



TYPE	A	B	C
LS0603	1.02	0.64	0.64
LS1008	2.54	1.02	1.27

APPLICATIONS

LS Series is the latest combo open type ferrite wire wound chip inductor. Thw wire wound ferrite construction provides higher SRF, lower DCR and superior Q values than other ferrite chip in duc-tors.

Telecom and datacom applications such as xDSL, Cable Modem, Set-top Box, CATV filter/ tuner, wireless LAN and so on.

FEATURES

Very strong solderability by reflow soldering and soldering iron or wave soldering.

Highly accurate dimensions can be mounted automatically.

Terminals are highly resistant to pull forces.

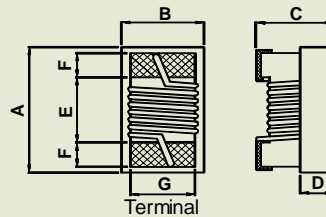
Highly resistant to mechanical shocks and pressure.

Highly reliable in environments of sudden temperature change and humidity.

Lowest DCR & better Q value in ferrite Series.

SHAPES AND DIMENSIONS

Dimensions : mm



TYPE	A	B	C	D	E	F	G
LS0603	1.8 ⁺⁰	1.25 ⁺⁰	1.02 ⁺⁰	0.38Ref	0.86	0.33	0.76
LS1008	2.92 ⁺⁰	2.79 ⁺⁰	2.20 ⁺⁰	0.70Ref	1.52	0.51	2.03



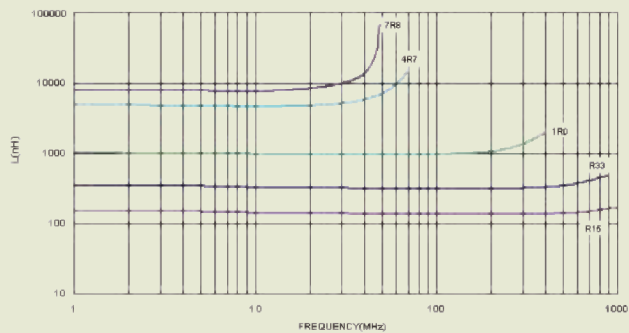
ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (nH)	TEST FREQ (MHz)	TOLERANCE (±%)	Q TYP-	SRF MIN (MHz)	RDC MAX (Ω)	IDC MAX (mA)	Color
LS0603-R47 □ -S	470	7.9	10/5	17	800	0.45	1100	Brown
LS0603-1R0 □ -S	1000	7.9	10/5	18	310	0.81	400	Blue
LS0603-2R2 □ -S	2200	7.9	10/5	19	250	1.35	500	Black
LS0603-4R7 □ -S	4700	7.9	10/5	19	95	2.80	400	Yellow
LS0603-6R8 □ -S	6800	7.9	10/5	19	55	3.30	400	Blue
LS0603-100 □ -S	10000	7.9	10/5	19	40	4.80	300	White

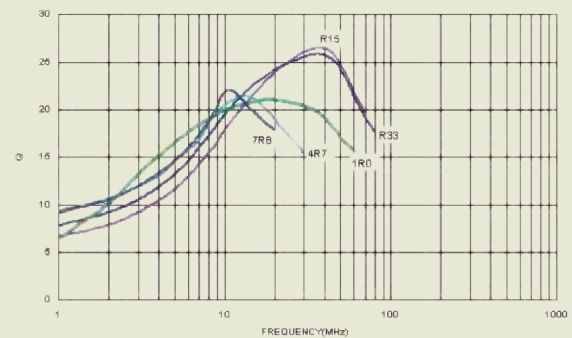
- Tolerance : J = ±5% , K = ±10%
- Packaging : Clear tape and reel (standard)
- L / Q : Agilent / HP4291A + Agilent / HP 16193A
- SRF : Agilent / HP4291A
- RDC : DIGITAL MULTIMETER SC-7401
- Idc for Inductance drop 10% from its value without current.
- Operating temperature range from -25°C to 85°C

TEST INSTRUMENTS : HP4291A Impedance / Material Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (μH)	TEST FREQ (MHz)	Q TYP-	SRF MIN (MHz)	RDC MAX (Ω)	IDC MAX (mA)	TOLERANCE (±%)	Color
LS0603-47N □ -N	0.047	7.9/7.9	17	1700	0.075	1500	5,10	BLK
LS0603-72N □ -N	0.072	7.9/7.9	17	1700	0.12	1500	5,10	BRN
LS0603-R10 □ -N	0.1	7.9/7.9	17	1650	0.13	1500	5,10	RED
LS0603-R12 □ -N	0.12	7.9/7.9	17	1400	0.15	1500	5,10	ORN
LS0603-R15 □ -N	0.15	7.9/7.9	17	1350	0.15	1450	5,10	YEL
LS0603-R18 □ -N	0.18	7.9/7.9	17	1350	0.15	1400	5,10	GRN
LS0603-R22 □ -N	0.22	7.9/7.9	17	1150	0.16	1350	5,10	BLU
LS0603-R24 □ -N	0.24	7.9/7.9	17	1050	0.19	1300	5,10	VIO
LS0603-R27 □ -N	0.27	7.9/7.9	17	1050	0.3	1050	5,10	GRY
LS0603-R33 □ -N	0.33	7.9/7.9	17	850	0.46	1200	5,10	WHT
LS0603-R39 □ -N	0.39	7.9/7.9	17	810	0.51	1200	5,10	BLK
LS0603-R47 □ -N	0.47	7.9/7.9	17	720	0.62	1050	5,10	BRN
LS0603-R56 □ -N	0.56	7.9/7.9	17	600	0.44	850	5,10	RED
LS0603-R68 □ -N	0.68	7.9/7.9	17	600	0.52	850	5,10	ORN
LS0603-R78 □ -N	0.78	7.9/7.9	17	460	0.83	850	5,10	YEL
LS0603-R82 □ -N	0.82	7.9/7.9	17	480	0.69	750	5,10	GRN
LS0603-1R0 □ -N	1	7.9/7.9	18	310	0.81	600	5,10	BLU
LS0603-1R2 □ -N	1.2	7.9/7.9	17	270	0.87	550	5,10	VIO
LS0603-1R5 □ -N	1.5	7.9/7.9	17	270	1.06	540	5,10	GRY



PART NO.	INDUCTANCE (μ H)	TEST FREQ (MHz)	Q TYP-	SRF MIN (MHz)	RDC MAX (Ω)	IDC MAX (mA)	TOLERANCE (\pm %)	Color
LS0603-1R8 □ -N	1.8	7.9/7.9	17	230	1.1	520	5,10	WHT
LS0603-2R2 □ -N	2.2	7.9/7.9	17	150	1.2	500	5,10	BLK
LS0603-2R7 □ -N	2.7	7.9/7.9	17	105	1.5	480	5,10	BRN
LS0603-3R3 □ -N	3.3	7.9/7.9	17	84	1.5	440	5,10	RED
LS0603-3R9 □ -N	3.9	7.9/7.9	17	80	1.6	430	5,10	ORN
LS0603-4R7 □ -N	4.7	7.9/7.9	18	69	2.1	420	5,10	YEL
LS0603-5R6 □ -N	5.6	7.9/7.9	18	65	2.6	400	5,10	GRN
LS0603-6R8 □ -N	6.8	7.9/7.9	19	55	3.1	400	5,10	BLU
LS0603-7R8 □ -N	7.8	7.9/7.9	17	47	3.5	400	5,10	VIO
LS0603-8R2 □ -N	8.2	7.9/7.9	17	42	3.6	400	5,10	GRY
LS0603-100 □ -N	10	7.9/7.9	19	40	4.8	300	5,10	WHT

NOTE: □ -tolerance J= \pm 5% / K= \pm 10% / L= \pm 15% / M= \pm 20%

1. Operating temperature range -25°C~85°C

2. L/Q Test OSC @200mV

3. IDC for Inductance drop 10% from its value without current

"N" FOR Completely lead free type (Including Ferrite Body & Solder)

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (μ H)	TOLERANCE (\pm %)	Q TYP			SRF (MHz) Min.	RDC (Ω) Max.	IDC MAX (mA)	Color Code		
			7.9MHz	25MHz	50MHz				1ST	2ND	3RD
LS1008-1R2 □ -S	1.2@7.9MHz	10/5	35	47	55	350	0.50	1200	Brown	Red	Red
LS1008-1R5 □ -S	1.5@7.9MHz	10/5	38	53	58	300	0.65	1200	Brown	Green	Red
LS1008-1R8 □ -S	1.8@7.9MHz	10/5	34	47	54	280	0.75	1050	Brown	Gray	Red
LS1008-2R2 □ -S	2.2@7.9MHz	10/5	34	43	48	250	0.90	950	Red	Red	Red
LS1008-2R7 □ -S	2.7@7.9MHz	10/5	38	49	51	200	1.00	950	Red	Violet	Red
LS1008-3R3 □ -S	3.3@7.9MHz	10/5	42	57	58	200	1.15	900	Orange	Orange	Red
LS1008-3R9 □ -S	3.9@7.9MHz	10/5	37	46	47	170	1.25	850	Orange	White	Red
LS1008-4R7 □ -S	4.7@7.9MHz	10/5	37	43	38	130	1.35	700	Yellow	Violet	Red
LS1008-5R6 □ -S	5.6@7.9MHz	10/5	36	40	29	110	1.45	700	Green	Blue	Red
LS1008-6R8 □ -S	6.8@7.9MHz	10/5	33	39	33	105	1.60	600	Blue	Gray	Red
LS1008-8R2 □ -S	8.2@7.9MHz	10/5	40	43	28	90	1.80	550	Gray	Red	Red
LS1008-100 □ -S	10.0@7.9MHz	10/5	40	41	25	85	2.40	500	Brown	Black	Orange

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (μ H)	TEST FREQ (MHz)	Q TYP.	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.	TOLERANCE (\pm %)	Color Code		
								1ST	2ND	3RD
LS1008-1R2 □ -N	1.2	7.9/50	55	350	0.5	1200	5,10	BRN	RED	RED
LS1008-1R5 □ -N	1.5	7.9/50	58	300	0.65	1200	5,10	BRN	GRN	RED
LS1008-1R8 □ -N	1.8	7.9/50	54	280	0.75	1050	5,10	BRN	GRY	RED
LS1008-2R2 □ -N	2.2	7.9/50	48	250	0.9	950	5,10	RED	RED	RED
LS1008-2R7 □ -N	2.7	7.9/50	51	200	1	950	5,10	RED	VIO	RED
LS1008-3R3 □ -N	3.3	7.9/50	58	200	1.15	900	5,10	ORN	ORN	RED
LS1008-3R9 □ -N	3.9	7.9/50	37	170	1.25	850	5,10	ORN	WHT	RED
LS1008-4R7 □ -N	4.7	7.9/7.9	37	130	1.35	700	5,10	YEL	VIO	RED
LS1008-5R6 □ -N	5.6	7.9/7.9	36	110	1.45	700	5,10	GRN	BLU	RED
LS1008-6R8 □ -N	6.8	7.9/7.9	33	105	1.6	600	5,10	BLU	GRY	RED
LS1008-8R2 □ -N	8.2	7.9/7.9	40	90	1.8	550	5,10	GRY	RED	RED
LS1008-100 □ -N	10	7.9/7.9	40	85	2.4	500	5,10	BRN	BLK	ORN
LS1008-150 □ -N	15	7.9/7.9	35	40	2.4	450	5,10	BRN	GRN	ORN

NOTE: □ -tolerance J= \pm 5% / K= \pm 10% / M= \pm 20%

1. Operating temperature range -25°C~85°C

2. L/Q Test OSC@200mV.

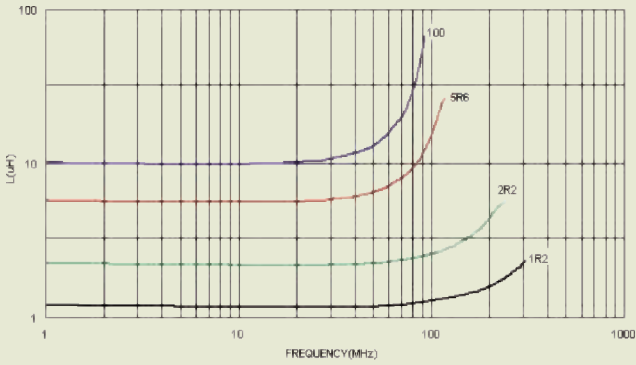
3. IDC for Inductance drop 10% from its value without current

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

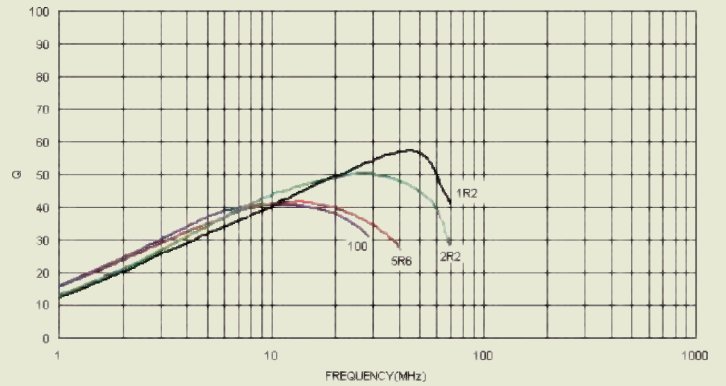


TEST INSTRUMENTS : HP4291A IMPEDANCE / MATERIAL ANALYZER

Typical L vs. Frequency

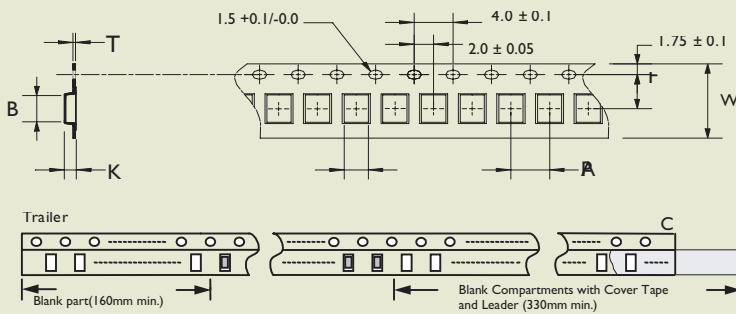


Typical Q vs. Frequency

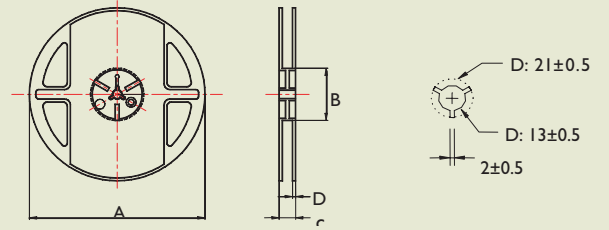


PACKAGING SPECIFICATIONS

Tape Dimensions



Reel Dimensions



Dimensions : mm

TYPE	TAPE DIMENSIONS						
	A	B	T	W	P	F	K
LS0603	1.15	1.83	0.23	8	4	3.5	1.00
LS1008	2.70	2.95	0.23	8	4	3.5	2.25

REEL DIMENSIONS				Q'TY/REEL
A	B	C	D	
178	60	12	1.5	4,000
178	60	12	1.5	2,000



RECOMMEND SOLDERING CONDITIONS

for:CS/ CT/ LCN/ HC/ HQ/ CMM/ NL (open type)/ NLC (open type)/ LS

