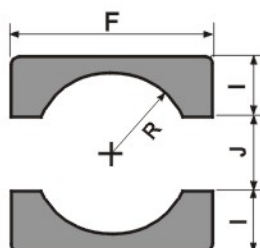
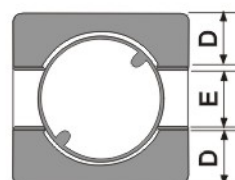
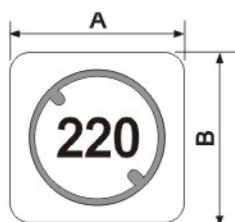




Shielded SMD Power Inductor SH20□□-L/SH3011-2 SH30□□-L/SH40□□-L/SH50□□-L/SH60□□-L Series

I. Configuration & Dimensions : (m/m)



(PCB Pattern Suggestion)

■ Features

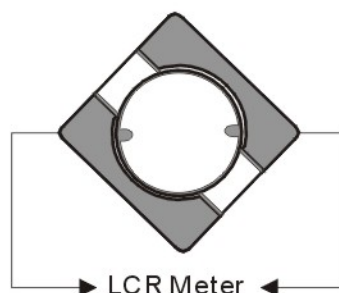
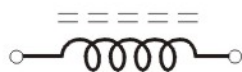
- Excellent solderability and high heat resistance
- Low cost and packed in embossed carrier tape
- Magnetic shielded surface mount inductor with high current rating

■ Applications

- Ideal use in notebook, hard disk PDA, DSC and other electronic equipment

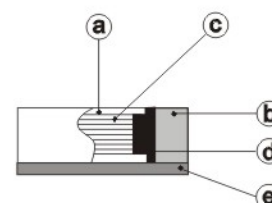
Series	A	B	C	D (typ.)	E (typ.)	F (ref.)	I (ref.)	J (ref.)	R (ref.)
SH2009-L	2.60 ±0.20	2.60 ±0.20	0.90 ±0.10	0.80	0.90	2.90	1.00	0.90	0.90
SH2011-L	2.60 ±0.20	2.60 ±0.20	1.10 ±0.10	0.80	0.90	2.90	1.00	0.90	
SH2013-L	2.60 ±0.20	2.60 ±0.20	1.35 ±0.15	0.80	0.90	2.90	1.00	0.90	
SH2016-L	2.60 ±0.20	2.60 ±0.20	1.65 ±0.15	0.80	0.90	2.90	1.00	0.90	
SH3009-L	3.80 ±0.30	3.80 ±0.30	0.90 ±0.10	1.30	1.20	4.30	1.60	1.10	1.30
SH3011-2	3.80 ±0.30	3.80 ±0.30	1.15 ±0.15	1.30	1.20	4.30	1.60	1.10	
SH3011-L	3.80 ±0.30	3.80 ±0.30	1.15 ±0.15	1.30	1.20	4.30	1.60	1.10	
SH3016-L	3.80 ±0.30	3.80 ±0.30	1.55 ±0.15	1.30	1.20	4.30	1.60	1.10	
SH3018-L	3.80 ±0.30	3.80 ±0.30	1.65 ±0.15	1.30	1.20	4.30	1.60	1.10	1.40
SH3027-L	3.80 ±0.30	3.80 ±0.30	2.80 ±0.20	1.30	1.20	4.30	1.60	1.10	
SH3028-L	3.80 ±0.30	3.80 ±0.30	2.80 ±0.20	1.30	1.20	4.30	1.60	1.10	1.50
SH4009-L	4.20 ±0.30	4.20 ±0.30	0.90 ±0.15	1.40	1.20	4.50	1.65	1.20	
SH4011-L	4.80 ±0.30	4.80 ±0.30	1.15 ±0.15	1.60	1.60	5.30	2.00	1.50	1.80
SH4018-L	4.80 ±0.20	4.80 ±0.20	1.80 ±0.20	1.60	1.60	5.30	2.00	1.50	
SH4022-L	4.80 ±0.30	4.80 ±0.30	2.20 ±0.20	1.60	1.60	5.30	2.00	1.50	
SH4028-L	4.80 ±0.20	4.80 ±0.20	2.80 ±0.20	1.60	1.60	5.30	2.00	1.50	
SH5018-L	5.80 ±0.30	5.80 ±0.30	1.80 ±0.20	1.90	2.00	6.30	2.20	1.90	2.20
SH5028-L	5.80 ±0.30	5.80 ±0.30	2.80 ±0.20	1.90	2.00	6.30	2.20	1.90	
SH6022-L	6.80 ±0.20	6.80 ±0.20	2.30 ±0.20	2.30	2.20	7.30	2.60	2.10	2.70
SH6028-L	6.80 ±0.20	6.80 ±0.20	2.80 ±0.20	2.30	2.20	7.30	2.60	2.10	
SH6038-L	6.80 ±0.20	6.80 ±0.20	3.80 ±0.20	2.30	2.20	7.30	2.60	2.10	

II. Schematic Diagram :



III. Materials :

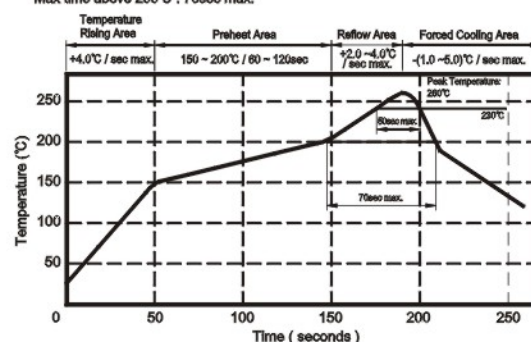
- Core : Ferrite DR core
- Core : Ferrite RI core
- Wire : Enamelled copper wire
- Adhesive : Epoxy resin
- Terminal : Ag/Ni/Sn
- Remark : Products comply with RoHS' requirements



IV. General Specification :

- Storage temp. : -40°C --- +125°C
- Operating temp. : -40°C --- +105°C
- Resistance to solder heat : 260°C, 10 secs.

Peak Temp : 260°C max.
Max time above 230°C : 50sec max.
Max time above 200°C : 70sec max.



V. Electrical Characteristics : • SH2009-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)	Marking
					typ.	max.			
SH2009 1R0YL□-□□□	1.00 $\pm$ 30%	6	7.960	210	80	105	1450	780	A
2R2YL□-□□□	2.20 $\pm$ 30%	6	7.960	135	160	205	1100	540	C
3R3YL□-□□□	3.30 $\pm$ 30%	6	7.960	110	220	290	860	430	E
4R7YL□-□□□	4.70 $\pm$ 30%	6	7.960	90	330	430	620	370	F
6R8YL□-□□□	6.80 $\pm$ 30%	6	7.960	70	445	580	540	270	G
100YL□-□□□	10.00 $\pm$ 30%	8	2.520	55	650	850	470	240	H
150YL□-□□□	15.00 $\pm$ 30%	10	2.520	50	935	1220	350	200	I
220YL□-□□□	22.00 $\pm$ 30%	10	2.520	35	1700	2210	250	150	J

- : Packaging information ...**A** : Bulk **B** : Taping reel
- "-□□□" : Reference Code
- Inductance test Freq. : 100KHz / 0.1V
- I_{rms} base on Temp. rise 40°C max.
- I_{sat} base on $\Delta L / L0A=35\%$ typ.

• SH2011-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)	Marking
					typ.	max.			
SH2011 1R0YL□-□□□	1.00 $\pm$ 30%	6	7.960	190	65	85	1200	850	A
1R5YL□-□□□	1.50 $\pm$ 30%	6	7.960	150	105	135	1100	675	C
3R3YL□-□□□	3.30 $\pm$ 30%	6	7.960	100	245	320	875	500	E
4R7YL□-□□□	4.70 $\pm$ 30%	8	7.960	85	400	520	620	410	F
6R8YL□-□□□	6.80 $\pm$ 30%	8	7.960	70	570	740	550	320	G
100YL□-□□□	10.00 $\pm$ 30%	10	2.520	60	910	1185	450	290	H
150YL□-□□□	15.00 $\pm$ 30%	10	2.520	50	1000	1300	375	240	I
220YL□-□□□	22.00 $\pm$ 30%	10	2.520	35	1420	1850	220	190	J

- : Packaging information ...**A** : Bulk **B** : Taping reel
- "-□□□" : Reference Code
- Inductance test Freq. : 100KHz / 0.1V
- I_{rms} base on Temp. rise 40°C max.
- I_{sat} base on $\Delta L / L0A=35\%$ typ.

• SH2013-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		Irms (mA)	Isat (mA)	Marking
					typ.	max.			
SH2013 1R0YL □-□□□	1.00 $\pm$ 30%	7	7.960	230	45	60	2100	1080	A
2R2YL □-□□□	2.20 $\pm$ 30%	7	7.960	120	75	100	1600	590	C
3R3YL □-□□□	3.30 $\pm$ 30%	7	7.960	95	115	150	1250	520	E
4R7YL □-□□□	4.70 $\pm$ 30%	7	7.960	90	170	220	1100	425	F
6R8YL □-□□□	6.00 $\pm$ 30%	7	7.960	75	245	320	1000	365	G
100YL □-□□□	10.00 $\pm$ 30%	10	2.520	60	340	445	650	300	H
150YL □-□□□	15.00 $\pm$ 30%	10	2.520	50	500	650	550	250	I
220YL □-□□□	22.00 $\pm$ 30%	12	2.520	35	800	1040	370	205	J
330YL □-□□□	33.00 $\pm$ 30%	12	2.520	30	1100	1450	350	150	K
470YL □-□□□	47.00 $\pm$ 30%	12	2.520	25	1500	1950	250	135	L

1). □ : Packaging information ...**A** : Bulk **B** : Taping reel

2). "-□□□" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). Irms base on Temp. rise 40°C max.

5). Isat base on $\Delta L / L_0A=35\%$ typ.

• SH2016-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		Irms (mA)	Isat (mA)	Marking
					typ.	max.			
SH2016 1R0YL □-□□□	1.00 $\pm$ 30%	8	7.960	175	80	105	1450	2300	A
2R2YL □-□□□	2.20 $\pm$ 30%	8	7.960	110	165	215	1100	1650	C
3R0YL □-□□□	3.30 $\pm$ 30%	9	7.960	80	200	260	900	1250	E
4R7YL □-□□□	4.70 $\pm$ 30%	9	7.960	70	285	370	800	1000	F
6R0YL □-□□□	6.00 $\pm$ 30%	9	7.960	50	360	470	720	780	G
100YL □-□□□	10.00 $\pm$ 30%	9	2.520	40	640	830	550	720	H
150YL □-□□□	15.00 $\pm$ 30%	12	2.520	30	900	1170	480	610	I
220YL □-□□□	22.00 $\pm$ 30%	12	2.520	25	1320	1720	400	520	J
330YL □-□□□	33.00 $\pm$ 30%	12	2.520	20	2000	2600	325	390	K
470YL □-□□□	47.00 $\pm$ 30%	12	2.520	15	3000	3900	250	300	L
680YL □-□□□	68.00 $\pm$ 30%	15	2.520	12	4450	5800	150	270	M
101YL □-□□□	100.00 $\pm$ 30%	15	0.796	10	7000	9100	100	230	N

1). □ : Packaging information ...**A** : Bulk **B** : Taping reel

2). "-□□□" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). Irms base on Temp. rise 40°C max.

5). Isat base on $\Delta L / L_0A=35\%$ typ.

• SH3009-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
					typ.	max.		
SH3009 1R3YL □-□□□	1.30 $\pm$ 30%	8	7.960	145	82	110	1800	1600
2R2YL □-□□□	2.20 $\pm$ 30%	10	7.960	90	121	160	1300	1200
3R3YL □-□□□	3.30 $\pm$ 30%	8	7.960	80	175	230	1000	900
4R7YL □-□□□	4.70 $\pm$ 30%	8	7.960	68	257	340	760	700
6R8YL □-□□□	6.80 $\pm$ 30%	10	7.960	48	410	550	640	600
100YL □-□□□	10.00 $\pm$ 30%	12	2.520	44	666	900	600	550
150YL □-□□□	15.00 $\pm$ 30%	16	2.520	34	877	1180	420	400
220YL □-□□□	22.00 $\pm$ 30%	14	2.520	26	1230	1660	380	350

• SH3011-2 Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
					typ.	max.		
SH3011 1R5Y2 □-□□□	1.50 $\pm$ 30%	7	7.960	130	68	88	1900	1800
2R2Y2 □-□□□	2.20 $\pm$ 30%	7	7.960	120	105	135	1600	1600
3R3Y2 □-□□□	3.30 $\pm$ 30%	6	7.960	100	130	170	1400	1400
4R7Y2 □-□□□	4.70 $\pm$ 30%	7	7.960	80	185	240	1200	1150
6R8Y2 □-□□□	6.80 $\pm$ 30%	6	7.960	70	270	340	1000	970
100Y2 □-□□□	10.00 $\pm$ 30%	6	2.520	50	415	520	800	700
150Y2 □-□□□	15.00 $\pm$ 30%	6	2.520	40	720	900	650	620
220Y2 □-□□□	22.00 $\pm$ 30%	6	2.520	30	1150	1450	540	500
330Y2 □-□□□	33.00 $\pm$ 30%	6	2.520	25	1550	1900	440	380
470Y2 □-□□□	47.00 $\pm$ 30%	4	2.520	20	2400	2750	350	300

- 1). □ : Packaging information ... : Bulk  : Taping reel
- 2). "□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 40°C typ.
- 5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

• SH3011-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
					typ.	max.		
SH3011 1R5YL □-□□□	1.50 $\pm$ 30%	11	7.960	124	42	55	1600	1300
2R5YL □-□□□	2.50 $\pm$ 30%	7	7.960	112	66	85	1200	1000
3R3YL □-□□□	3.30 $\pm$ 30%	8	7.960	101	70	90	1000	850
4R7YL □-□□□	4.70 $\pm$ 30%	9	7.960	69	112	145	900	750
6R8YL □-□□□	6.80 $\pm$ 30%	10	7.960	49	160	210	720	620
100YL □-□□□	10.00 $\pm$ 30%	18	2.520	42	220	280	650	500
150YL □-□□□	15.00 $\pm$ 30%	16	2.520	37	330	420	480	380
220YL □-□□□	22.00 $\pm$ 30%	11	2.520	31	520	680	380	320
330YL □-□□□	33.00 $\pm$ 30%	14	2.520	25	670	860	320	270
470YL □-□□□	47.00 $\pm$ 30%	16	2.520	18	1450	1800	270	230
680YL □-□□□	68.00 $\pm$ 30%	14	2.520	15	1820	2250	220	180
101YL □-□□□	100.00 $\pm$ 30%	39	0.796	13	3000	3600	180	150

- 1). □ : Packaging information ... : Bulk  : Taping reel
- 2). "□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 30°C max.
- 5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

• SH3016-L Series

DWG No.	Inductance (μ H)	RDC (m Ω) max.	IDC (mA)
SH3016 1R5YL □-□□□	1.50 $\pm$ 30%	45.0	1450.0
2R5YL □-□□□	2.50 $\pm$ 30%	65.0	1150.0
3R6YL □-□□□	3.60 $\pm$ 30%	90.0	900.0
4R7YL □-□□□	4.70 $\pm$ 30%	120.0	800.0
6R8YL □-□□□	6.80 $\pm$ 30%	170.0	660.0
100YL □-□□□	10.00 $\pm$ 30%	240.0	520.0
150YL □-□□□	15.00 $\pm$ 30%	340.0	430.0
220YL □-□□□	22.00 $\pm$ 30%	510.0	360.0
330YL □-□□□	33.00 $\pm$ 30%	780.0	290.0
470YL □-□□□	47.00 $\pm$ 30%	1200.0	230.0
680YL □-□□□	68.00 $\pm$ 30%	1800.0	200.0
101YL □-□□□	100.00 $\pm$ 30%	2400.0	160.0

- 1). □ : Packaging information ...**A** : Bulk **B** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). IDC Base on Temp. rise 30°C max. & Δ L / L0A=35% typ.

• SH3018-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
			max.	typ.		
SH3018 1R5YL □-□□□	1.50 $\pm$ 30%	118	47	35	1750	1550
2R5YL □-□□□	2.50 $\pm$ 30%	79	58	45	1450	1250
3R6YL □-□□□	3.60 $\pm$ 30%	79	85	65	1380	1100
4R7YL □-□□□	4.70 $\pm$ 30%	61	105	85	1200	900
6R8YL □-□□□	6.80 $\pm$ 30%	46	156	125	850	750
100YL □-□□□	10.00 $\pm$ 30%	39	205	165	740	560
150YL □-□□□	15.00 $\pm$ 30%	31	285	230	620	450
220YL □-□□□	22.00 $\pm$ 30%	29	450	360	510	360
330YL □-□□□	33.00 $\pm$ 30%	24	660	545	420	320
470YL □-□□□	47.00 $\pm$ 30%	21	1000	800	390	250
680YL □-□□□	68.00 $\pm$ 30%	13	1450	1200	320	220
101YL □-□□□	100.00 $\pm$ 30%	10	2400	2050	250	180

- 1). □ : Packaging information ...**A** : Bulk **B** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 30°C max.
- 5). I_{sat} base on Δ L / L0A=35% typ.

• SH3027-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		Irms (mA)	Isat (mA)
					typ.	max.		
SH3027 4R7YL □-□□□	4.70 $\pm$ 30%	5	7.960	50	30	40	2000	750
100YL □-□□□	10.00 $\pm$ 30%	8	2.520	30	60	78	1600	530
150YL □-□□□	15.00 $\pm$ 30%	7	2.520	25	88	115	1300	400
220YL □-□□□	22.00 $\pm$ 30%	6	2.520	22	120	156	1100	320
330YL □-□□□	33.00 $\pm$ 30%	7	2.520	18	165	215	920	270
470YL □-□□□	47.00 $\pm$ 30%	7	2.520	16	225	280	820	230
680YL □-□□□	68.00 $\pm$ 30%	6	2.520	11	335	420	660	190
101YL □-□□□	100.00 $\pm$ 30%	8	0.796	9	465	580	600	160
121YL □-□□□	120.00 $\pm$ 30%	8	0.796	8	600	750	520	140
151YL □-□□□	150.00 $\pm$ 30%	10	0.796	7	690	860	480	125
221YL □-□□□	220.00 $\pm$ 30%	8	0.796	6	1050	1320	380	100

- 1). □ : Packaging information ...**A** : Bulk **B** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). Irms base on Temp. rise 20°C typ.
- 5). Isat base on $\Delta L / L0A=35\%$ typ.

• SH3028-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		Irms (mA)	Isat (mA)
					typ.	max.		
SH3028 3R3YL □-□□□	3.30 $\pm$ 30%	7	7.960	55	40	52	1950	1700
4R7YL □-□□□	4.70 $\pm$ 30%	6	7.960	50	43	56	1900	1400
6R8YL □-□□□	6.80 $\pm$ 30%	7	7.960	45	82	108	1300	1150
100YL □-□□□	10.00 $\pm$ 30%	8	2.520	30	96	125	1100	900
150YL □-□□□	15.00 $\pm$ 30%	7	2.520	20	160	200	920	700
220YL □-□□□	22.00 $\pm$ 30%	8	2.520	14	255	320	820	600
330YL □-□□□	33.00 $\pm$ 30%	7	2.520	12	350	440	660	500
470YL □-□□□	47.00 $\pm$ 30%	8	2.520	10	430	535	600	450
680YL □-□□□	68.00 $\pm$ 30%	6	2.520	8	620	780	520	360
101YL □-□□□	100.00 $\pm$ 30%	10	0.796	7	925	1150	480	300

- 1). □ : Packaging information ...**A** : Bulk **B** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). Isat base on $\Delta L / L0A=35\%$ typ.
- 5). Irms base on Temp. rise 20°C typ.

• SH4009-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
					typ.	max.		
SH4009 1R1YL □-□□□	1.10 $\pm$ 30%	10	7.960	150	55	76	2100	2000
1R5YL □-□□□	1.50 $\pm$ 30%	10	7.960	120	72	98	1700	1650
2R5YL □-□□□	2.50 $\pm$ 30%	8	7.960	100	125	170	1350	1300
3R3YL □-□□□	3.30 $\pm$ 30%	8	7.960	85	173	234	1200	1150
4R7YL □-□□□	4.70 $\pm$ 30%	10	7.960	65	219	300	920	900
6R8YL □-□□□	6.80 $\pm$ 30%	8	7.960	55	367	495	750	750
8R0YL □-□□□	8.00 $\pm$ 30%	8	7.960	50	424	572	680	680
100YL □-□□□	10.00 $\pm$ 30%	16	2.520	42	545	700	600	650
150YL □-□□□	15.00 $\pm$ 30%	16	2.520	34	857	1150	450	480
220YL □-□□□	22.00 $\pm$ 30%	12	2.520	26	1130	1470	400	420
330YL □-□□□	33.00 $\pm$ 30%	14	2.520	20	1640	2130	320	340

1). □ : Packaging information ---[A] : Bulk [B] : Taping reel

2). "-□□□" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). I_{rms} base on Temp. rise 40°C typ.

5). I_{sat} base on Δ L / L0A=35% typ.

• SH4011-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
					typ.	max.		
SH4011 R47YL □-□□□	0.47 $\pm$ 30%	7	25.200	221	22	30	3200	3800
1R2YL □-□□□	1.20 $\pm$ 30%	10	7.960	133	35	48	2700	2500
1R5YL □-□□□	1.50 $\pm$ 30%	11	7.960	121	42	56	2300	2100
2R2YL □-□□□	2.20 $\pm$ 30%	11	7.960	92	55	75	2000	1800
3R3YL □-□□□	3.30 $\pm$ 30%	10	7.960	67	82	110	1600	1400
4R7YL □-□□□	4.70 $\pm$ 30%	13	7.960	61	124	165	1350	1200
6R2YL □-□□□	6.20 $\pm$ 30%	7	7.960	51	144	195	1200	1000
8R2YL □-□□□	8.20 $\pm$ 30%	8	7.960	39	162	215	1100	920
100YL □-□□□	10.00 $\pm$ 30%	14	2.520	41	185	240	1000	830
150YL □-□□□	15.00 $\pm$ 30%	11	2.520	33	300	400	900	700
220YL □-□□□	22.00 $\pm$ 30%	13	2.520	23	460	580	600	570
330YL □-□□□	33.00 $\pm$ 30%	15	2.520	20	680	860	550	470
470YL □-□□□	47.00 $\pm$ 30%	10	2.520	18	980	1250	480	400
680YL □-□□□	68.00 $\pm$ 30%	12	2.520	14	1450	1800	350	320
820YL □-□□□	82.00 $\pm$ 30%	13	2.520	11	1700	2200	330	300
101YL □-□□□	100.00 $\pm$ 30%	18	0.796	11	1950	2400	310	270
151YL □-□□□	150.00 $\pm$ 30%	39	0.796	8	3100	3800	250	220

1). □ : Packaging information ---[A] : Bulk [B] : Taping reel

2). "-□□□" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). I_{rms} base on Temp. rise 40°C typ.

5). I_{sat} base on Δ L / L0A=30% typ.

• SH4018-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC($m\Omega$)		Irms (mA)	Isat (mA)
			typ.	max.		
SH4018 1R0YL □-□□□	1.00 $\pm$ 30%	219	25	35	2700	2600
1R8YL □-□□□	1.80 $\pm$ 30%	105	43	58	2350	2200
2R7YL □-□□□	2.70 $\pm$ 30%	78	45	60	2030	1950
3R3YL □-□□□	3.30 $\pm$ 30%	61	49	65	1950	1800
3R9YL □-□□□	3.90 $\pm$ 30%	60	55	75	1820	1650
4R7YL □-□□□	4.70 $\pm$ 30%	55	62	82	1720	1500
5R6YL □-□□□	5.60 $\pm$ 30%	57	70	90	1640	1250
6R8YL □-□□□	6.80 $\pm$ 30%	49	78	100	1500	1150
8R2YL □-□□□	8.20 $\pm$ 30%	40	102	135	1400	1100
100YL □-□□□	10.00 $\pm$ 30%	38	114	150	1300	1000
120YL □-□□□	12.00 $\pm$ 30%	32	130	170	1150	900
150YL □-□□□	15.00 $\pm$ 30%	30	174	220	1030	820
180YL □-□□□	18.00 $\pm$ 30%	30	224	280	920	750
220YL □-□□□	22.00 $\pm$ 30%	29	240	300	880	650
270YL □-□□□	27.00 $\pm$ 30%	23	286	370	770	600
330YL □-□□□	33.00 $\pm$ 30%	21	324	420	730	500
390YL □-□□□	39.00 $\pm$ 30%	19	420	540	640	480
470YL □-□□□	47.00 $\pm$ 30%	20	450	600	620	450
560YL □-□□□	56.00 $\pm$ 30%	15	643	820	520	400
680YL □-□□□	68.00 $\pm$ 30%	13	670	860	500	380
820YL □-□□□	82.00 $\pm$ 30%	13	935	1200	430	320
101YL □-□□□	100.00 $\pm$ 30%	12	1050	1350	400	300

- 1). □ : Packaging information ---**▣** : Bulk **▤** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). Irms base on Temp. rise 30°C max.
- 5). Isat base on $\Delta L / L0A=35\%$ typ.

• SH4022-L Series

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC($m\Omega$)		Irms (mA)	Isat (mA)
					typ.	max.		
SH4022 1R5YL □-□□□	1.50 $\pm$ 30%	8.0	7.960	100.0	13.5	20.0	3500	1800
2R2YL □-□□□	2.20 $\pm$ 30%	8.0	7.960	70.0	16.5	25.0	3300	1600
3R3YL □-□□□	3.30 $\pm$ 30%	8.0	7.960	60.0	24.0	36.0	3000	1400
4R7YL □-□□□	4.70 $\pm$ 30%	8.0	7.960	50.0	37.0	55.0	2200	1100
6R8YL □-□□□	6.80 $\pm$ 30%	9.0	7.960	35.0	50.0	70.0	2000	950
100YL □-□□□	10.00 $\pm$ 30%	9.0	2.520	30.0	65.0	85.0	1700	800
150YL □-□□□	15.00 $\pm$ 30%	22.0	2.520	20.0	98.0	130.0	1300	680
220YL □-□□□	22.00 $\pm$ 30%	15.0	2.520	18.0	138.0	180.0	1100	530
330YL □-□□□	33.00 $\pm$ 30%	15.0	2.520	15.0	217.0	280.0	800	420
470YL □-□□□	47.00 $\pm$ 30%	13.0	2.520	12.0	269.0	350.0	700	350
680YL □-□□□	68.00 $\pm$ 30%	13.0	2.520	11.0	409.0	520.0	600	300
101YL □-□□□	100.00 $\pm$ 30%	20.0	0.796	9.0	513.0	650.0	550	240
121YL □-□□□	120.00 $\pm$ 30%	30.0	0.796	9.0	585.0	730.0	520	210
151YL □-□□□	150.00 $\pm$ 30%	40.0	0.796	8.0	738.0	930.0	450	180

- 1). □ : Packaging information ---**▣** : Bulk **▤** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). Irms base on Temp. rise 20°C typ.
- 5). Isat base on $\Delta L / L0A=35\%$ typ.

• SH4028-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (mA)	I _{sat} (mA)
			typ.	max.		
SH4028 1R2YL □-□□□	1.20 $\pm$ 30%	143.00	13	20	3100	2560
1R8YL □-□□□	1.80 $\pm$ 30%	117.00	16	25	2700	2200
2R2YL □-□□□	2.20 $\pm$ 30%	90.00	20	28	2500	2050
2R7YL □-□□□	2.70 $\pm$ 30%	88.00	22	30	2350	1800
3R3YL □-□□□	3.30 $\pm$ 30%	77.00	26	35	2150	1650
3R9YL □-□□□	3.90 $\pm$ 30%	79.00	42	60	1720	1500
4R7YL □-□□□	4.70 $\pm$ 30%	42.00	47	70	1550	1300
5R6YL □-□□□	5.60 $\pm$ 30%	68.00	65	85	1380	1200
6R8YL □-□□□	6.80 $\pm$ 30%	58.00	70	90	1300	1150
8R2YL □-□□□	8.20 $\pm$ 30%	45.00	76	100	1250	1050
100YL □-□□□	10.00 $\pm$ 30%	30.00	86	110	1190	1000
120YL □-□□□	12.00 $\pm$ 30%	29.00	95	125	1120	850
150YL □-□□□	15.00 $\pm$ 30%	30.00	115	150	1030	780
180YL □-□□□	18.00 $\pm$ 30%	27.00	128	160	980	750
220YL □-□□□	22.00 $\pm$ 30%	23.00	144	185	925	720
270YL □-□□□	27.00 $\pm$ 30%	18.00	156	200	890	600
330YL □-□□□	33.00 $\pm$ 30%	16.00	183	230	820	580
390YL □-□□□	39.00 $\pm$ 30%	20.00	196	250	795	500
470YL □-□□□	47.00 $\pm$ 30%	10.00	218	280	750	480
560YL □-□□□	56.00 $\pm$ 30%	11.00	250	320	700	410
680YL □-□□□	68.00 $\pm$ 30%	13.00	310	400	630	360
820YL □-□□□	82.00 $\pm$ 30%	9.80	395	520	560	320
101YL □-□□□	100.00 $\pm$ 30%	10.00	476	600	510	300
121YL □-□□□	120.00 $\pm$ 30%	8.80	555	700	470	280
151YL □-□□□	150.00 $\pm$ 30%	6.80	685	860	420	260
181YL □-□□□	180.00 $\pm$ 30%	6.70	778	1000	390	230
221YL □-□□□	220.00 $\pm$ 30%	6.10	1008	1250	340	200
271YL □-□□□	270.00 $\pm$ 30%	4.30	1192	1500	320	180
331YL □-□□□	330.00 $\pm$ 30%	4.30	1338	1700	300	170
391YL □-□□□	390.00 $\pm$ 30%	3.90	1798	2200	260	160
471YL □-□□□	470.00 $\pm$ 30%	2.90	2128	2600	240	155
561YL □-□□□	560.00 $\pm$ 30%	3.00	2478	3000	220	150

1). □ : Packaging information ...**A** : Bulk **B** : Taping reel

2). "□□□" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). I_{rms} base on Temp. rise 30°C max.

5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

• SH5018-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC(Ω)		I _{rms} (A)	I _{sat} (A)
			typ.	max.		
SH5018 1R2YL □-□□□	1.20±30%	100	0.019	0.030	3.000	3.500
1R8YL □-□□□	1.80±30%	90	0.024	0.035	2.600	3.000
2R5YL □-□□□	2.50±30%	80	0.027	0.040	2.400	2.700
3R0YL □-□□□	3.00±30%	70	0.033	0.045	2.200	2.400
3R9YL □-□□□	3.90±30%	60	0.041	0.055	2.000	2.100
5R0YL □-□□□	5.00±30%	58	0.047	0.060	1.650	1.800
6R2YL □-□□□	6.20±30%	55	0.060	0.080	1.450	1.600
7R5YL □-□□□	7.50±30%	50	0.068	0.090	1.350	1.500
9R0YL □-□□□	9.00±30%	40	0.082	0.110	1.250	1.350
100YL □-□□□	10.00±30%	40	0.112	0.130	1.100	1.250
120YL □-□□□	12.00±30%	38	0.133	0.160	1.000	1.150
150YL □-□□□	15.00±30%	36	0.158	0.190	0.950	1.100
180YL □-□□□	18.00±30%	32	0.167	0.210	0.900	1.000
220YL □-□□□	22.00±30%	28	0.217	0.280	0.800	0.900
270YL □-□□□	27.00±30%	26	0.244	0.320	0.750	0.800
330YL □-□□□	33.00±30%	22	0.279	0.350	0.650	0.700
390YL □-□□□	39.00±30%	18	0.365	0.500	0.550	0.650
470YL □-□□□	47.00±30%	18	0.430	0.550	0.520	0.600
560YL □-□□□	56.00±30%	16	0.473	0.600	0.480	0.550
680YL □-□□□	68.00±30%	14	0.698	0.850	0.400	0.500
820YL □-□□□	82.00±30%	13	0.787	0.950	0.380	0.450
101YL □-□□□	100.00±30%	12	0.885	1.100	0.350	0.420
121YL □-□□□	120.00±30%	10	1.180	1.420	0.300	0.400
151YL □-□□□	150.00±30%	9	1.330	1.650	0.280	0.350
181YL □-□□□	180.00±30%	8	1.780	2.300	0.250	0.320
221YL □-□□□	220.00±30%	7	1.980	2.500	0.230	0.300

- 1). □ : Packaging information ...**A** : Bulk **B** : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 40°C typ.
- 5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

• SH5028-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC(Ω)		I _{rms} (A)	I _{sat} (A)
			typ.	max.		
SH5028 2R6YL □-□□□	2.60 $\pm$ 30%	55.00	0.020	0.030	3.000	2.700
3R0YL □-□□□	3.00 $\pm$ 30%	45.00	0.023	0.030	2.800	2.500
4R2YL □-□□□	4.20 $\pm$ 30%	40.00	0.026	0.035	2.500	2.200
5R3YL □-□□□	5.30 $\pm$ 30%	45.00	0.033	0.040	2.300	1.900
6R2YL □-□□□	6.20 $\pm$ 30%	40.00	0.036	0.045	2.200	1.800
8R2YL □-□□□	8.20 $\pm$ 30%	28.00	0.043	0.055	2.100	1.600
100YL □-□□□	10.00 $\pm$ 30%	25.00	0.056	0.070	1.500	1.400
120YL □-□□□	12.00 $\pm$ 30%	20.00	0.065	0.080	1.460	1.250
150YL □-□□□	15.00 $\pm$ 30%	20.00	0.074	0.100	1.380	1.150
180YL □-□□□	18.00 $\pm$ 30%	20.00	0.088	0.110	1.250	1.100
220YL □-□□□	22.00 $\pm$ 30%	18.00	0.098	0.120	1.150	1.000
270YL □-□□□	27.00 $\pm$ 30%	16.00	0.124	0.160	1.050	0.900
330YL □-□□□	33.00 $\pm$ 30%	15.00	0.164	0.190	0.900	0.780
390YL □-□□□	39.00 $\pm$ 30%	14.00	0.176	0.210	0.860	0.720
470YL □-□□□	47.00 $\pm$ 30%	13.00	0.199	0.250	0.820	0.650
560YL □-□□□	56.00 $\pm$ 30%	11.00	0.264	0.300	0.720	0.600
680YL □-□□□	68.00 $\pm$ 30%	10.00	0.287	0.350	0.620	0.560
820YL □-□□□	82.00 $\pm$ 30%	9.00	0.338	0.430	0.520	0.500
101YL □-□□□	100.00 $\pm$ 30%	8.50	0.378	0.480	0.450	0.450
151YL □-□□□	150.00 $\pm$ 30%	6.50	0.715	0.900	0.330	0.350
221YL □-□□□	220.00 $\pm$ 30%	6.00	0.969	1.250	0.300	0.300
331YL □-□□□	330.00 $\pm$ 30%	4.50	1.660	2.000	0.200	0.200
681YL □-□□□	680.00 $\pm$ 30%	2.80	3.630	4.300	0.130	0.140

- 1). □ : Packaging information ---[A] : Bulk [B] : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 30°C max.
- 5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

• SH6022-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC($m\Omega$)		I _{rms} (mA)	I _{sat} (mA)
			typ.	max.		
SH6022 R90YL □-□□□	0.90±30%	108.00	10	14	4800	4400
1R5YL □-□□□	1.50±30%	79.00	13	18	4300	3500
2R2YL □-□□□	2.20±30%	68.00	16	24	3400	2600
3R3YL □-□□□	3.30±30%	52.00	19	32	2800	2200
5R0YL □-□□□	5.00±30%	48.00	36	46	2150	2000
6R2YL □-□□□	6.20±30%	45.00	41	54	1900	1700
7R5YL □-□□□	7.50±30%	38.00	46	60	1700	1500
100YL □-□□□	10.00±30%	30.00	52	70	1600	1300
120YL □-□□□	12.00±30%	32.00	62	80	1430	1150
150YL □-□□□	15.00±30%	30.00	73	95	1310	1050
180YL □-□□□	18.00±30%	29.00	78	100	1280	1000
220YL □-□□□	22.00±30%	23.00	85	120	1220	950
270YL □-□□□	27.00±30%	19.00	118	150	1040	850
330YL □-□□□	33.00±30%	19.00	137	200	930	780
390YL □-□□□	39.00±30%	20.00	202	250	760	700
470YL □-□□□	47.00±30%	18.00	223	280	730	620
560YL □-□□□	56.00±30%	15.00	257	320	680	560
680YL □-□□□	68.00±30%	14.00	292	360	640	500
820YL □-□□□	82.00±30%	11.00	328	420	600	450
101YL □-□□□	100.00±30%	9.80	358	480	550	400
121YL □-□□□	120.00±30%	9.80	455	600	480	360
151YL □-□□□	150.00±30%	9.30	583	720	430	320
181YL □-□□□	180.00±30%	8.60	664	860	400	280
221YL □-□□□	220.00±30%	6.90	820	1100	360	250
271YL □-□□□	270.00±30%	6.40	948	1300	340	220
331YL □-□□□	330.00±30%	6.00	1192	1500	290	200
391YL □-□□□	390.00±30%	5.50	1311	1800	275	180
471YL □-□□□	470.00±30%	5.00	1713	2200	240	170
561YL □-□□□	560.00±30%	4.90	1909	2700	225	160
681YL □-□□□	680.00±30%	4.00	2497	3500	190	150
821YL □-□□□	820.00±30%	3.40	3315	4000	172	140
102YL □-□□□	1000.00±30%	3.30	3827	5000	160	130

- 1). □ : Packaging information ... : Bulk  : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 30°C max.
- 5). I_{sat} base on $\Delta L / L_0 = 35\%$ typ.

• SH6028-L Series

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC(m Ω)		I _{rms} (A)	I _{sat} (A)
			typ.	max.		
SH6028 2R5YL □-□□□	2.50±30%	50	19	25	2.800	3.000
3R3YL □-□□□	3.30±30%	45	21	28	2.500	2.600
3R9YL □-□□□	3.90±30%	40	24	32	2.450	2.300
5R0YL □-□□□	5.00±30%	38	27	36	2.400	2.100
6R0YL □-□□□	6.00±30%	35	30	40	2.300	2.000
7R3YL □-□□□	7.30±30%	30	38	52	2.200	1.850
8R6YL □-□□□	8.60±30%	28	42	56	2.100	1.820
100YL □-□□□	10.00±30%	25	47	65	2.000	1.700
150YL □-□□□	15.00±30%	22	58	78	1.700	1.300
220YL □-□□□	22.00±30%	20	88	115	1.400	1.080
330YL □-□□□	33.00±30%	18	120	155	1.150	0.920
470YL □-□□□	47.00±30%	16	185	235	0.920	0.720
680YL □-□□□	68.00±30%	15	245	300	0.800	0.600
101YL □-□□□	100.00±30%	14	385	500	0.580	0.550
151YL □-□□□	150.00±30%	13	540	680	0.500	0.420
221YL □-□□□	220.00±30%	12	660	820	0.450	0.360
331YL □-□□□	330.00±30%	10	1100	1400	0.370	0.270
471YL □-□□□	470.00±30%	9	1650	2100	0.270	0.220
681YL □-□□□	680.00±30%	8	2450	3100	0.220	0.200
102YL □-□□□	1000.0±30%	7	3600	4500	0.150	0.170

- 1). □ : Packaging information ---[A] : Bulk [B] : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 100KHz / 0.1V
- 4). I_{rms} base on Temp. rise 30°C max.
- 5). I_{sat} base on $\Delta L / L_0 A = 35\%$ typ.

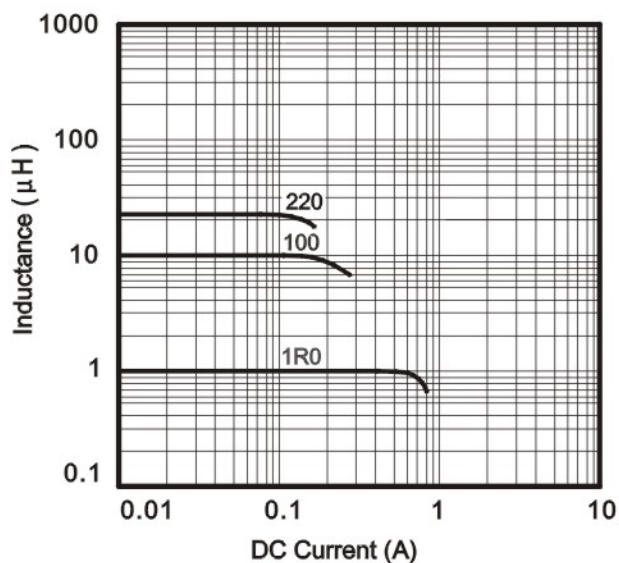
• SH6038-L Series

DWG No.	Inductance (μ H)	RDC (Ω) max.	IDC (A)
SH6038 3R3YL □-□□□	3.30±30%	0.020	3.50
5R0YL □-□□□	5.00±30%	0.024	2.90
6R2YL □-□□□	6.20±30%	0.027	2.50
7R4YL □-□□□	7.40±30%	0.031	2.30
8R7YL □-□□□	8.70±30%	0.034	2.20
100YL □-□□□	10.00±30%	0.038	2.00
120YL □-□□□	12.00±30%	0.053	1.70
150YL □-□□□	15.00±30%	0.057	1.60
180YL □-□□□	18.00±30%	0.092	1.50
220YL □-□□□	22.00±30%	0.096	1.30
270YL □-□□□	27.00±30%	0.109	1.20
330YL □-□□□	33.00±30%	0.124	1.10
390YL □-□□□	39.00±30%	0.138	1.00
470YL □-□□□	47.00±30%	0.155	0.95
560YL □-□□□	56.00±30%	0.202	0.85
680YL □-□□□	68.00±30%	0.234	0.75
820YL □-□□□	82.00±30%	0.324	0.70
101YL □-□□□	100.00±30%	0.358	0.65

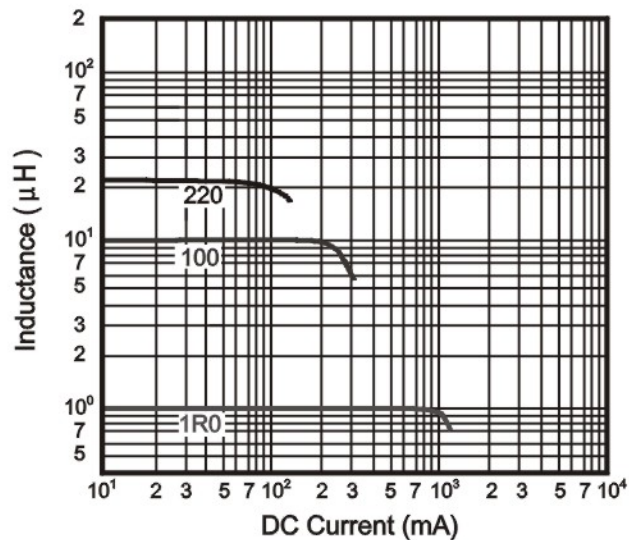
- 1). □ : Packaging information ---[A] : Bulk [B] : Taping reel
- 2). "-□□□" : Reference Code
- 3). Inductance test Freq. : 10KHz / 0.1V
- 4). IDC base on Temp. rise 30°C max. & $\Delta L / L_0 A = 35\%$ max.

VI. Inductance VS. DC Current Curve :

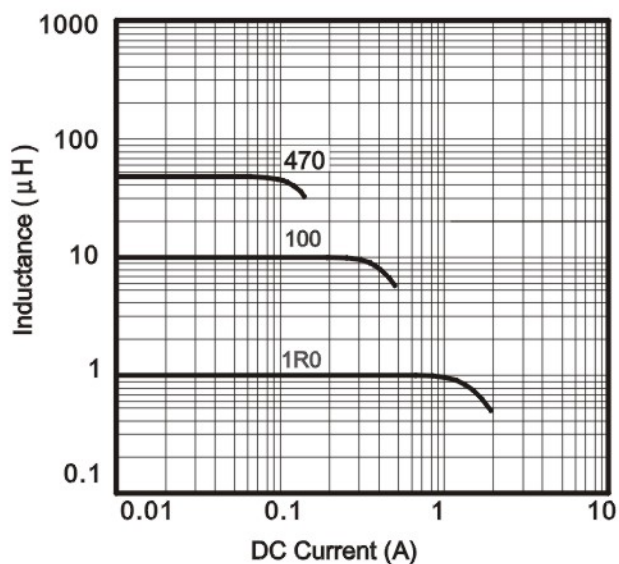
▪ SH2009-L Series



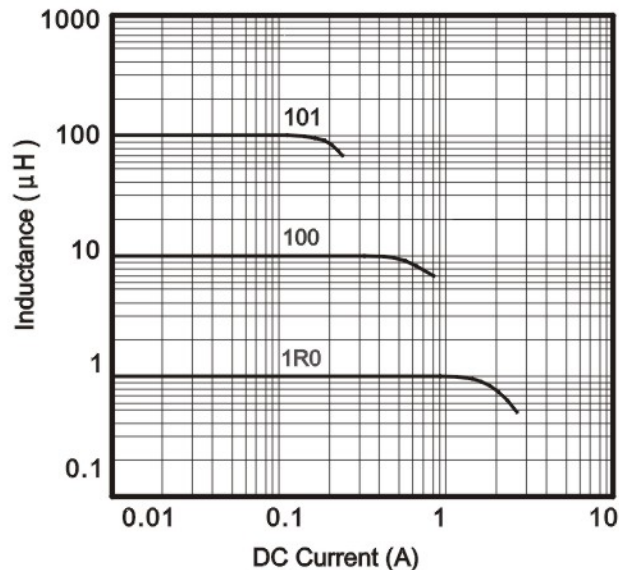
▪ SH2011-L Series



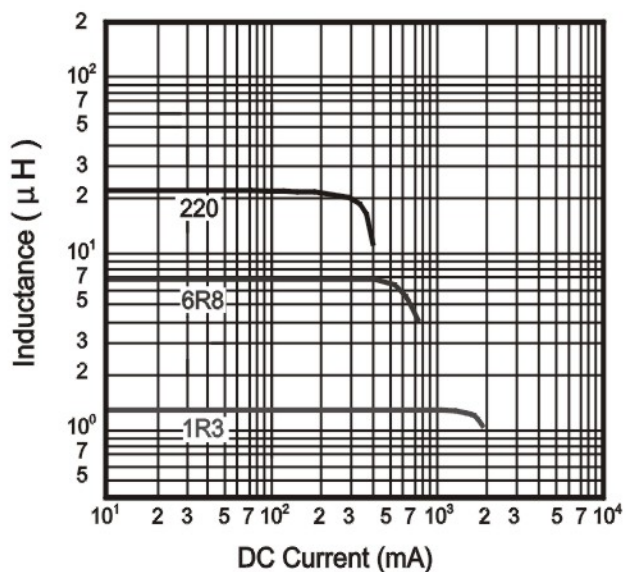
▪ SH2013-L Series



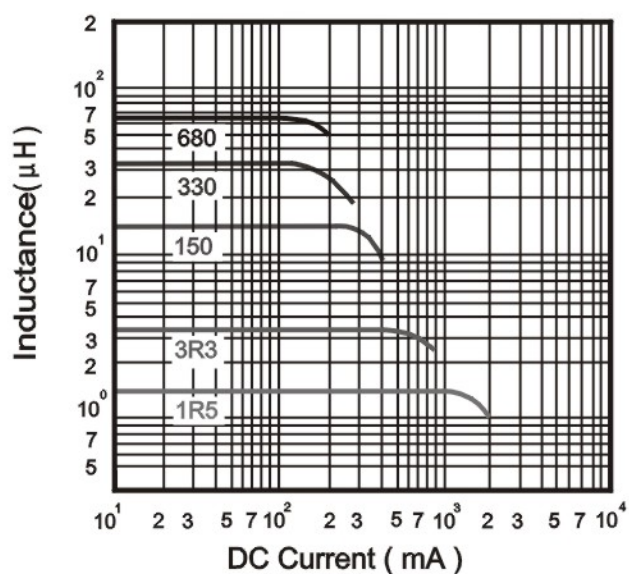
▪ SH2016-L Series



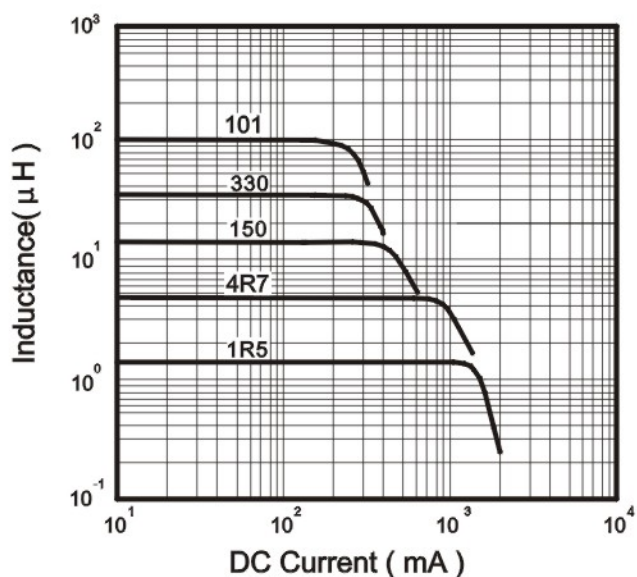
▪ SH3009-L Series



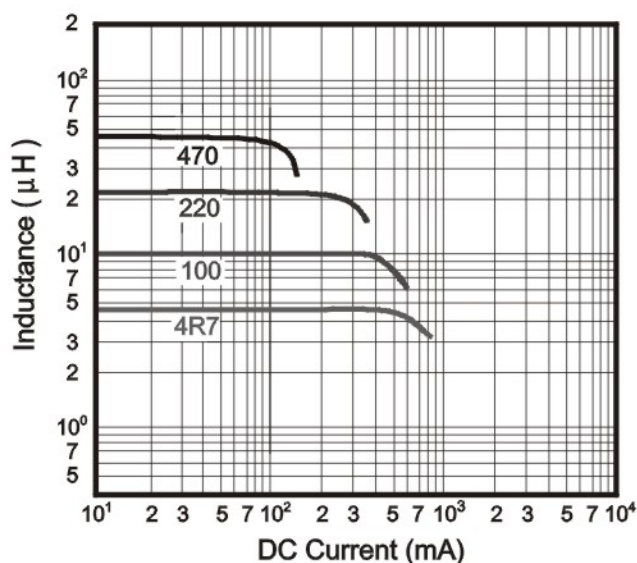
▪ SH3011-L Series



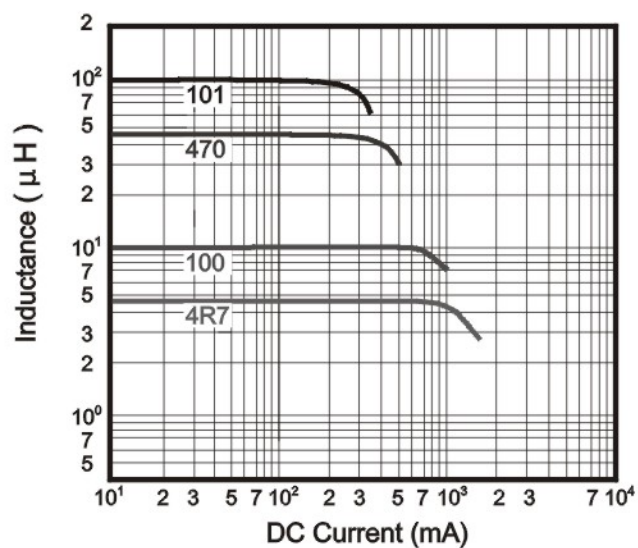
• SH3018-L Series



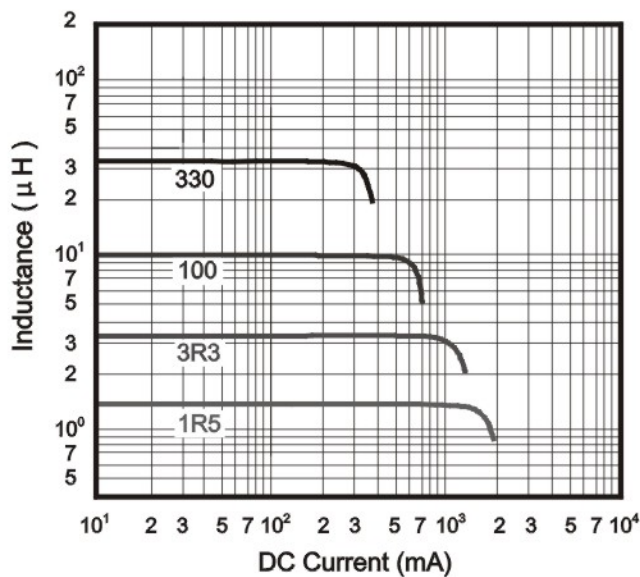
• SH3027-L Series



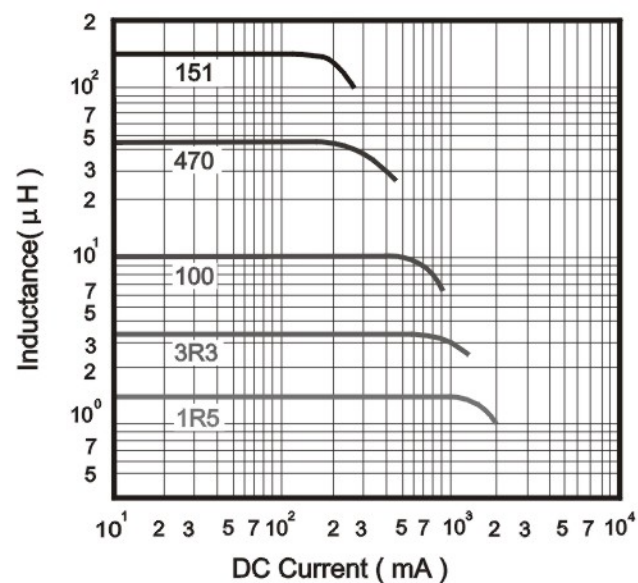
• SH3028-L Series



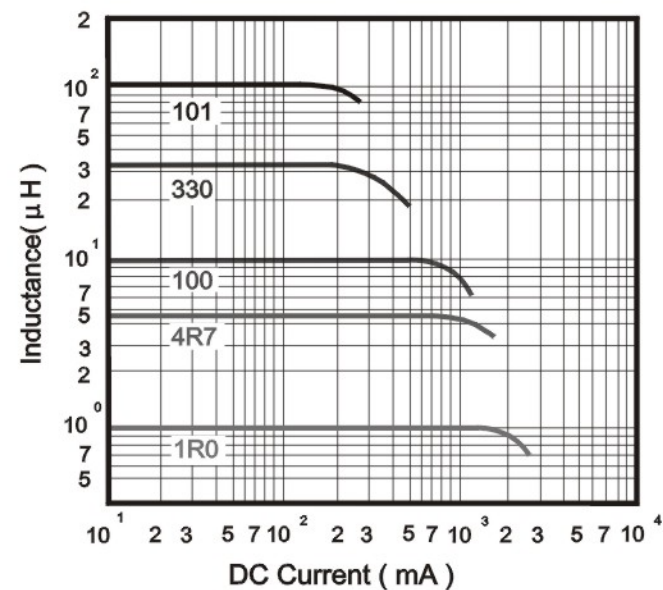
• SH4009-L Series



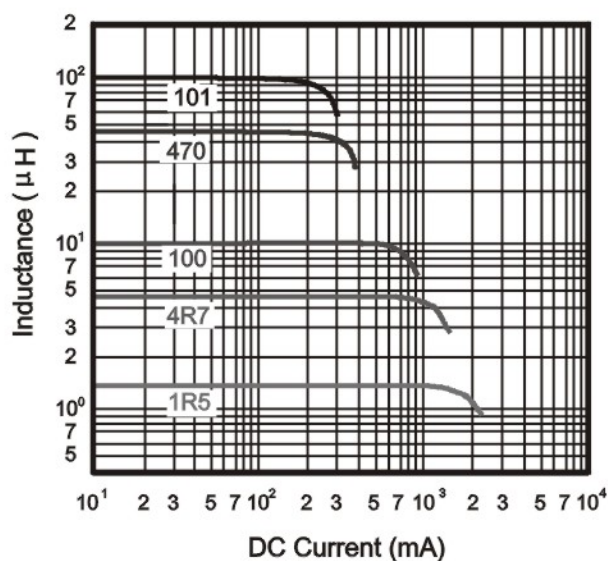
• SH4011-L Series



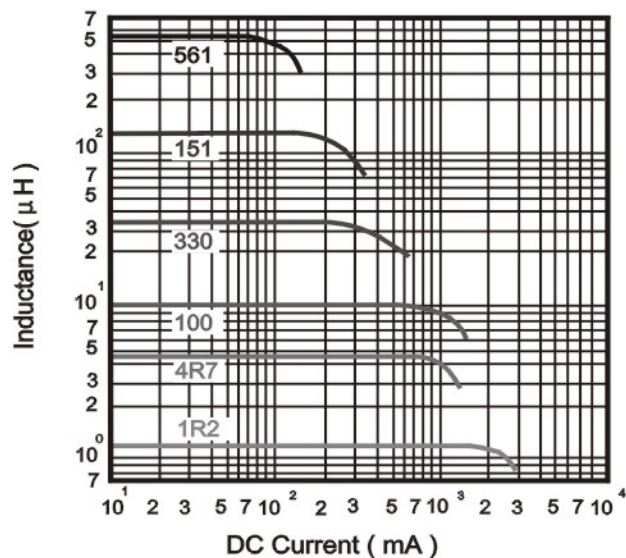
• SH4018-L Series



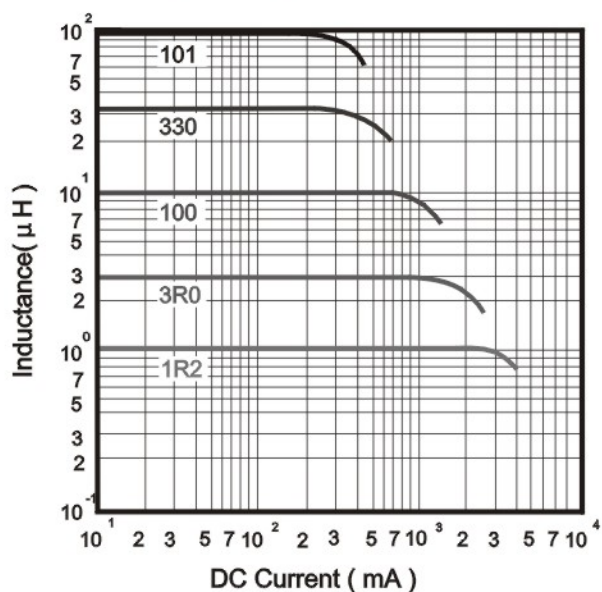
▪ SH4022-L Series



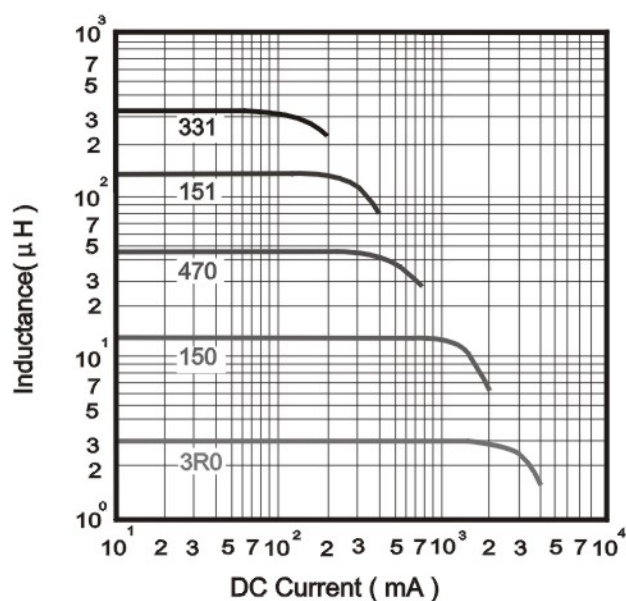
▪ SH4028-L Series



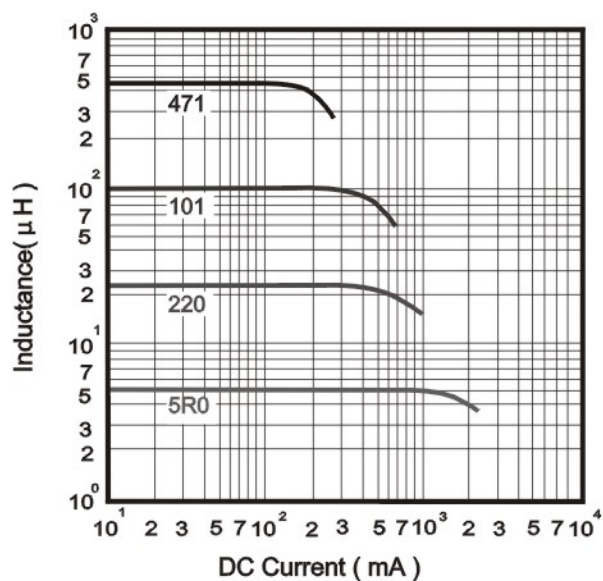
▪ SH5018-L Series



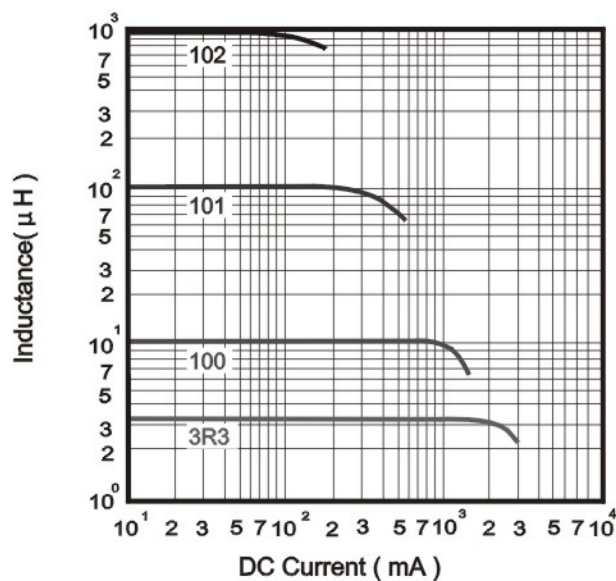
▪ SH5028-L Series



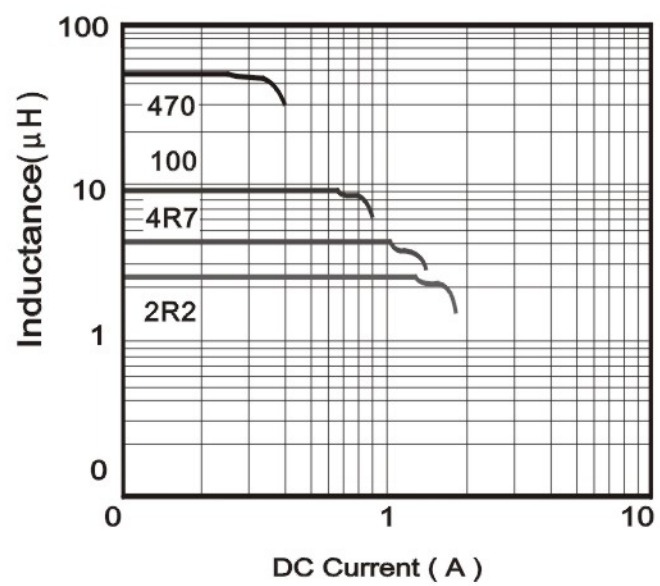
▪ SH6022-L Series



▪ SH6028-L Series



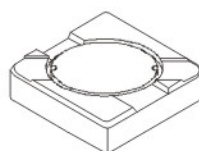
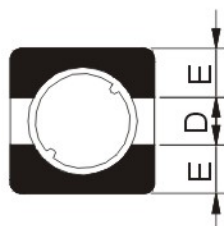
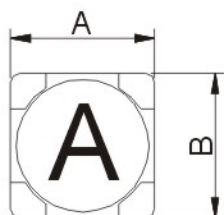
▪ SH3011-2 Series



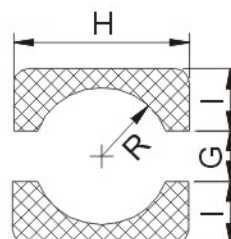


Shielded SMD Power Inductor SH3220-L Series

I. Configuration & Dimensions : (m/m)

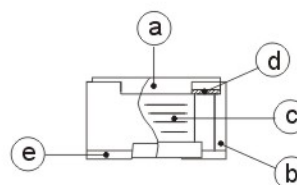
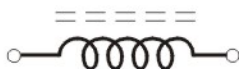


A	: 3.20 max.	m/m
B	: 3.20 max.	m/m
C	: 2.00 max.	m/m
D	: 1.00 typ.	m/m
E	: 1.00 typ.	m/m
G	: 0.90 ref.	m/m
H	: 3.50 ref.	m/m
I	: 1.30 ref.	m/m
R	: 1.10 ref.	m/m



(PCB Pattern Suggestion)

II. Schematic Diagram :

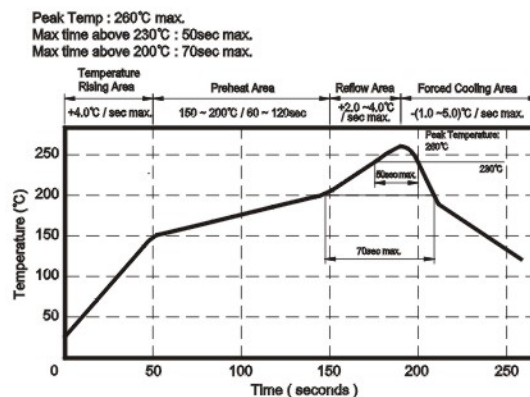


III. Materials :

- a. Core : Ferrite DR core
- b. Core : Ferrite RI core
- c. Wire : Enamelled copper wire
- d. Adhesive : Epoxy resin
- e. Terminal : Ag/Ni/Sn
- f. Remark : Products comply with RoHS' requirements

IV. General Specification :

- a. Storage temp. : -40°C --- +125°C
- b. Operating temp. : -40°C --- +105°C
- c. Resistance to solder heat : 260°C, 10 secs.



V. Electrical Characteristics : • SH3220-L Series

DWG No.	Inductance (μ H)	RDC (m Ω) max.	I _{rms} (mA)	I _{sat} (mA)	Marking
SH3220 3R3YL  -   	3.30 $\pm$ 30%	108	1200	1500	A
6R8YL  -   	6.80 $\pm$ 30%	208	980	980	B
100YL  -   	10.00 $\pm$ 30%	280	870	830	C
220YL  -   	22.00 $\pm$ 30%	730	540	540	D
470YL  -   	47.00 $\pm$ 30%	1300	390	390	E
101YL  -   	100.00 $\pm$ 30%	2600	280	260	F

1).  : Packaging information ... : Bulk  : Taping reel

2). "-" : Reference Code

3). Inductance test Freq. : 100KHz / 0.1V

4). I_{rms} base on Temp. rise 45°C max.

5). I_{sat} base on Δ L / L_{0A}=35% max.