

SMD Power Inductors

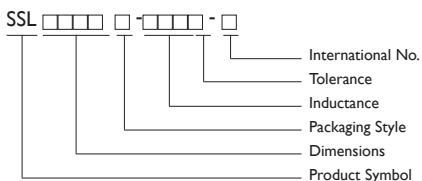
SSL0618 Series



DESCRIPTION

- 2mm max height
- Inductance range from 1 μ H to 1000 μ H
- Current range from 2.3Amps to 0.08Amps
- Very competitive cost design.

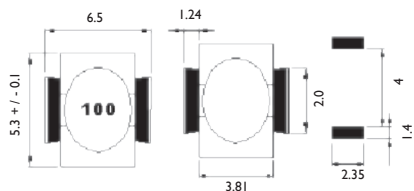
PRODUCT IDENTIFICATION



ENVIRONMENTAL DATA

Storage temperature range: -40°C to +125°C
 Operating ambient temperature range: -40°C to +85°C (range is application specific). Temperature rise is approximately 40°C at rated rms current
 Infrared reflow temperature : +240°C for 30 seconds.

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

Digital cameras, CD players, cellular phones, and PDAs

PCMCIA cards

GPS systems

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (μ H \pm 20%) *	SRF (MHz)	DC RESISTANCE (Ω°)	I _{sat} ** (A)	I _{rms} *** (A)
SSL0618T-1R0M-S	1.0	230	0.04	2.50	2.30
SSL0618T-1R5M-S	1.5	180	0.06	2.20	2.10
SSL0618T-2R2M-S	2.2	140	0.07	1.80	1.70
SSL0618T-3R3M-S	3.3	110	0.12	1.40	1.30
SSL0618T-4R7M-S	4.7	100	0.15	1.20	1.10
SSL0618T-6R8M-S	6.8	80	0.20	1.10	1.00
SSL0618T-100M-S	10	60	0.26	1.00	0.90
SSL0618T-150M-S	15	45	0.40	0.80	0.70
SSL0618T-220M-S	22	35	0.54	0.60	0.50
SSL0618T-330M-S	33	30	0.74	0.50	0.45
SSL0618T-470M-S	47	22	1.10	0.45	0.40
SSL0618T-680M-S	68	20	1.60	0.35	0.35
SSL0618T-101M-S	100	15	2.30	0.30	0.30
SSL0618T-151M-S	150	10	3.50	0.25	0.25
SSL0618T-221M-S	220	9	5.70	0.20	0.18
SSL0618T-331M-S	330	8	8.20	0.16	0.16
SSL0618T-471M-S	470	7	10.8	0.14	0.12
SSL0618T-681M-S	680	5	17.2	0.12	0.10
SSL0618T-102M-S	1000	4	22.6	0.08	0.08

* Inductance Tested at 100 KHz , 0.1 Vrms

** DC current at which the inductance drops 10% (typ) from its value without current.

*** Average current for a 40°C rise above 25°C ambient.

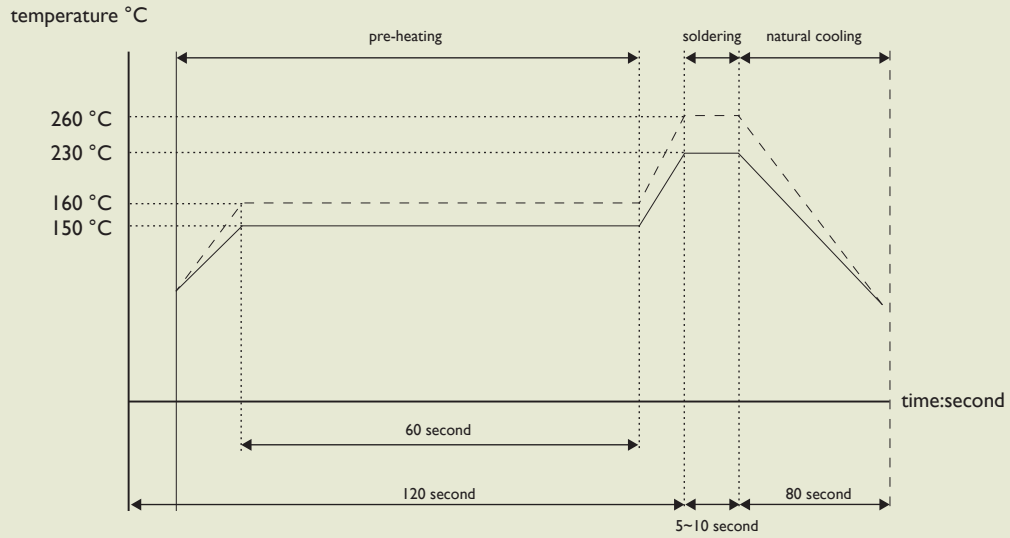
**** Operating Temperature Range -40°C to +85°C

***** Electroical specifications at 25°C



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder	—————
for: lead-free solder

SMD Power Inductors

SSL0400 Series

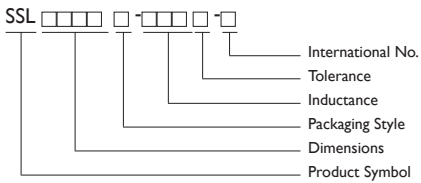


FEATURES

High energy storage and very low resistance.

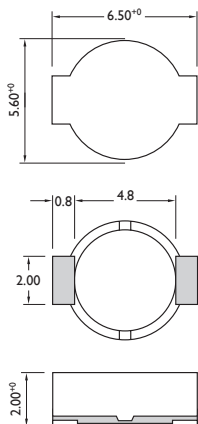
Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

This Series is designed for applications requiring high inductance, high current and an ultra-low profile.

The SSL0400T measures only 2 mm high and has a footprint of just 5.3 x 6.5mm. But despite this small size, it is available in versions that will handle up to 2.5 Amps. The series covers a wide range of inductance values from 1 μ H to 1mH.

The core is completely enclosed in a rugged ceramic case giving it a flat top that provides the optimum surface for reliable pick and place operations.

APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE * (μ H)	TOLERANCE ($\pm\%$)	DC RESISTANCE (Ω) Max.	I sat ** (A)	I rms *** (A)
SSL0400T-1R0M-S	1.0	20	0.05	2.5	2.3
SSL0400T-1R5M-S	1.5	20	0.06	2.2	2.1
SSL0400T-2R2M-S	2.2	20	0.07	1.8	1.7
SSL0400T-3R3M-S	3.3	20	0.12	1.4	1.3
SSL0400T-4R7M-S	4.7	20	0.15	1.2	1.1
SSL0400T-6R8M-S	6.8	20	0.20	1.1	1.0
SSL0400T-100M-S	10	20	0.30	1.0	0.90
SSL0400T-150M-S	15	20	0.40	0.8	0.70
SSL0400T-220M-S	22	20	0.54	0.6	0.50
SSL0400T-330M-S	33	20	0.74	0.5	0.45
SSL0400T-470M-S	47	20	1.1	0.45	0.40
SSL0400T-680M-S	68	20	1.6	0.35	0.35
SSL0400T-101M-S	100	20	2.3	0.30	0.30
SSL0400T-151M-S	150	20	3.5	0.25	0.25
SSL0400T-221M-S	220	20	5.7	0.2	0.18
SSL0400T-331M-S	330	20	8.2	0.16	0.16
SSL0400T-471M-S	470	20	10.8	0.14	0.12
SSL0400T-681M-S	680	20	17.2	0.12	0.10
SSL0400T-102M-S	1000	20	22.6	0.08	0.08

* Inductance Tested at 100 KHz, 0.1 Vrms.

** Inductance Drop = 10% Typ. at Isat

*** $\Delta T = 30^\circ\text{C}$ Rise Typ at I rms

Operating Temperature Range -40°C to $+85^\circ\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μ H)	Test Freq(KHz)	RDC(Ω)Max	Isat(A)Max	Irms(A)
SSL0400T-1R0 <input type="checkbox"/> -N	1	0.1V 100KHz	0.05	2.5	2.3
SSL0400T-1R5 <input type="checkbox"/> -N	1.5	0.1V 100KHz	0.06	2.2	2.1
SSL0400T-2R2 <input type="checkbox"/> -N	2.2	0.1V 100KHz	0.07	1.8	1.7
SSL0400T-3R3 <input type="checkbox"/> -N	3.3	0.1V 100KHz	0.12	1.4	1.3
SSL0400T-4R7 <input type="checkbox"/> -N	4.7	0.1V 100KHz	0.15	1.2	1.1
SSL0400T-6R8 <input type="checkbox"/> -N	6.8	0.1V 100KHz	0.2	1.1	1
SSL0400T-100 <input type="checkbox"/> -N	10	0.1V 100KHz	0.3	1	0.9
SSL0400T-150 <input type="checkbox"/> -N	15	0.1V 100KHz	0.4	0.8	0.7
SSL0400T-220 <input type="checkbox"/> -N	22	0.1V 100KHz	0.54	0.6	0.5
SSL0400T-330 <input type="checkbox"/> -N	33	0.1V 100KHz	0.74	0.5	0.45
SSL0400T-470 <input type="checkbox"/> -N	47	0.1V 100KHz	1.1	0.45	0.4
SSL0400T-680 <input type="checkbox"/> -N	68	0.1V 100KHz	1.6	0.35	0.35
SSL0400T-101 <input type="checkbox"/> -N	100	0.1V 100KHz	2.3	0.3	0.3
SSL0400T-151 <input type="checkbox"/> -N	150	0.1V 100KHz	3.5	0.25	0.25
SSL0400T-221 <input type="checkbox"/> -N	220	0.1V 100KHz	5.7	0.2	0.18
SSL0400T-331 <input type="checkbox"/> -N	330	0.1V 100KHz	8.2	0.16	0.16
SSL0400T-471 <input type="checkbox"/> -N	470	0.1V 100KHz	10.8	0.14	0.12
SSL0400T-681 <input type="checkbox"/> -N	680	0.1V 100KHz	17.2	0.12	0.1
SSL0400T-102 <input type="checkbox"/> -N	1000	0.1V 100KHz	22.6	0.08	0.08

NOTE : -tolerance K= \pm 10% / \pm 15% / M= \pm 20% / N= \pm 40% -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at Isat

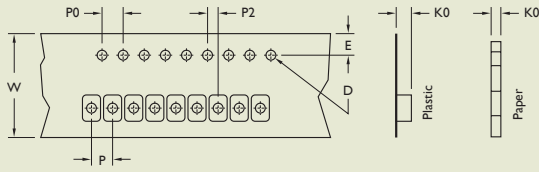
3. Δ T=40°C rise typ at Irms.

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



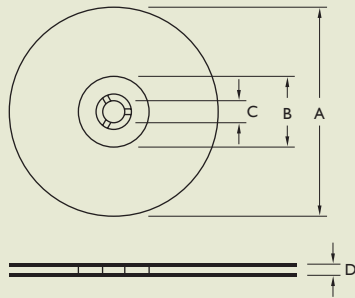
TAPE DIMENSIONS

Dimensions : mm



TYPE	TAPE DIMENSIONS						
	K0	D	E	W	P	P0	P2
SSL0400	1.85	1.5	1.75	12	8	4	2

REEL DIMENSIONS



REEL DIMENSIONS				QUANTITY (PCS/REEL)	
A	B	C	D	178MM	330MM
330	100	13	13.4	-	3500
178	60	13	13.2	1000	-

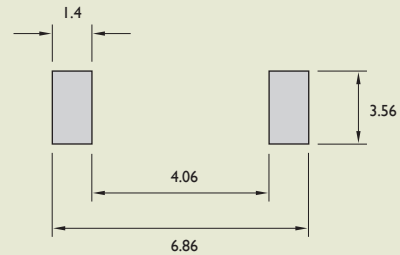
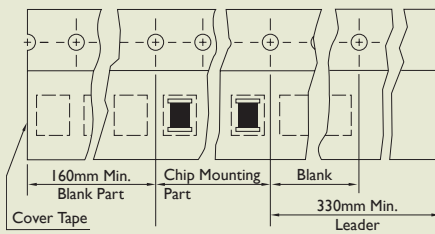
TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

RECOMMENDED PATTERN

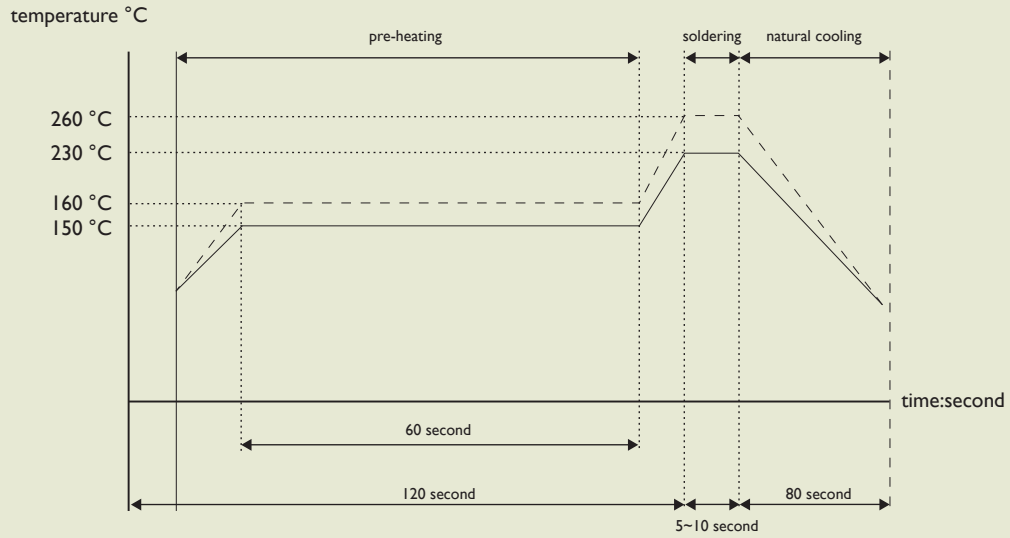
Land Pattern





RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder	—————
for: lead-free solder	-----

SMD Unshielded Power Inductors

SSL04LP Series

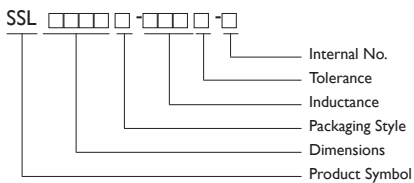
DC-DC Conversion



FEATURES

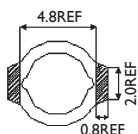
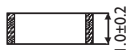
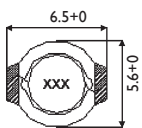
- High energy storage and very low resistance.
- Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel, B : Bulk
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

Notebook computers, Sep-up and step-down converters
Flash, memory programmers. etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (μH) *	TOLERANCE ($\pm\%$)	DC RESISTANCE (Ω°) _{max}	Isat ** (A)	I _{rms} *** (A)
SSL04LP-1R2M-S	1.2	20	0.08	2.10	1.70
SSL04LP-1R5M-S	1.5	20	0.10	1.90	1.50
SSL04LP-2R2M-S	2.2	20	0.12	1.60	1.40
SSL04LP-3R3M-S	3.3	20	0.16	1.30	1.20
SSL04LP-4R7M-S	4.7	20	0.20	1.10	1.10
SSL04LP-6R8M-S	6.8	20	0.32	0.90	0.85
SSL04LP-100M-S	10	20	0.41	0.80	0.75
SSL04LP-150M-S	15	20	0.55	0.65	0.60
SSL04LP-220M-S	22	20	0.85	0.50	0.52
SSL04LP-330M-S	33	20	1.30	0.40	0.42
SSL04LP-470M-S	47	20	1.80	0.35	0.36
SSL04LP-680M-S	68	20	2.50	0.30	0.30
SSL04LP-101M-S	100	20	3.50	0.25	0.26
SSL04LP-151M-S	150	20	5.00	0.18	0.21
SSL04LP-221M-S	220	20	7.00	0.16	0.18
SSL04LP-331M-S	330	20	15.0	0.13	0.13

* Inductance Tested at 100 KHz , 0.1 Vrms

** Inductance drops = 10% typ. at Isat.

*** $\Delta T = 30^{\circ}\text{C}$ rise typ at I_{rms}

**** Operating Temperature Range -40°C to $+85^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μ H)	Test Freq(KHz)	RDC(Ω)Max	Isat(A)Max	Irms(A)
SSL04LP-1R2 <input type="checkbox"/> -N	1.2	0.1V 100KHz	0.08	2.1	3.6
SSL04LP-1R5 <input type="checkbox"/> -N	1.5	0.1V 100KHz	0.1	1.9	2.8
SSL04LP-2R2 <input type="checkbox"/> -N	2.2	0.1V 100KHz	0.12	1.6	2.4
SSL04LP-3R3 <input type="checkbox"/> -N	3.3	0.1V 100KHz	0.16	1.3	2
SSL04LP-4R7 <input type="checkbox"/> -N	4.7	0.1V 100KHz	0.2	1.1	1.7
SSL04LP-6R8 <input type="checkbox"/> -N	6.8	0.1V 100KHz	0.32	0.9	1.2
SSL04LP-100 <input type="checkbox"/> -N	10	0.1V 100KHz	0.41	0.8	1.1
SSL04LP-150 <input type="checkbox"/> -N	15	0.1V 100KHz	0.55	0.65	0.9
SSL04LP-220 <input type="checkbox"/> -N	22	0.1V 100KHz	0.85	0.5	0.83
SSL04LP-330 <input type="checkbox"/> -N	33	0.1V 100KHz	1.3	0.4	0.62
SSL04LP-470 <input type="checkbox"/> -N	47	0.1V 100KHz	1.8	0.35	0.52
SSL04LP-680 <input type="checkbox"/> -N	68	0.1V 100KHz	2.5	0.3	0.35
SSL04LP-101 <input type="checkbox"/> -N	100	0.1V 100KHz	3.5	0.25	0.27
SSL04LP-151 <input type="checkbox"/> -N	150	0.1V 100KHz	5	0.18	0.24
SSL04LP-221 <input type="checkbox"/> -N	220	0.1V 100KHz	7	0.16	0.23
SSL04LP-331 <input type="checkbox"/> -N	330	0.1V 100KHz	15	0.13	0.13

NOTE : -tolerance K= \pm 10% / \pm 15% / M= \pm 20% / N= \pm 40% -20%

1.Operating temperature range -40°C~85°C

2.Inductance drop = 10% typ. at Isat

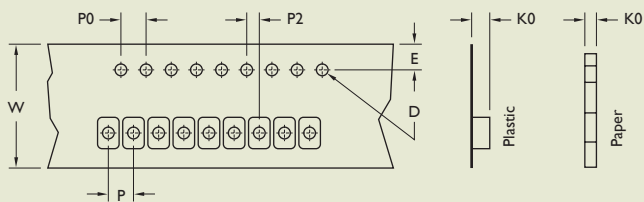
3. Δ T=40°C rise typ at I rms.

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



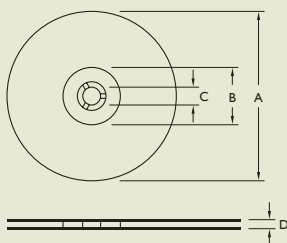
TAPE DIMENSIONS

Dimensions : mm



TYPE	TAPE DIMENSIONS						
	K0	D	E	W	P	P0	P2
SSL04LP	1.30	1.5	1.75	12	8	4	2

REEL DIMENSIONS



REEL DIMENSIONS				QUANTITY (PCS/REEL)	
A	B	C	D	178MM	330MM
330	100	13	13.4	-	3500
178	60	13	13.2	1000	-

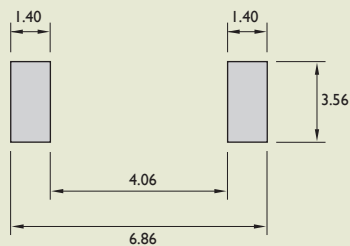
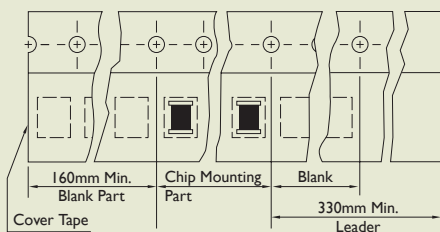
TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

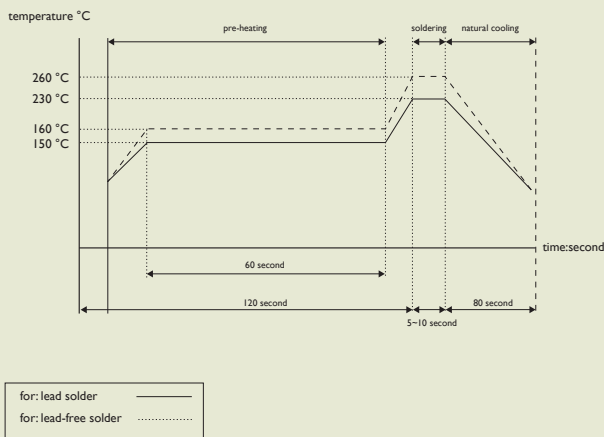
RECOMMENDED PATTERN

Land Pattern



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



SSL0402 Series

SMD Power Inductors

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$)*	SRF (MHz)	DC RESISTANCE (Ω°)	Isat** (A)	Irms*** (A)
SSL0402T-1R0M-S	1.0	130	0.05	2.90	2.9
SSL0402T-1R5M-S	1.5	115	0.05	2.60	2.8
SSL0402T-2R2M-S	2.2	90	0.07	2.30	2.4
SSL0402T-3R3M-S	3.3	70	0.08	2.00	2.0
SSL0402T-4R7M-S	4.7	50	0.09	1.50	1.5
SSL0402T-6R8M-S	6.8	45	0.13	1.20	1.4
SSL0402T-100M-S	10	35	0.16	1.10	1.1
SSL0402T-150M-S	15	30	0.23	0.90	1.2
SSL0402T-220M-S	22	20	0.37	0.70	0.8
SSL0402T-330M-S	33	15	0.51	0.58	0.6
SSL0402T-470M-S	47	14	0.64	0.50	0.5
SSL0402T-680M-S	68	11	0.86	0.40	0.4
SSL0402T-101M-S	100	9	1.27	0.31	0.3
SSL0402T-151M-S	150	6	2.00	0.27	0.25
SSL0402T-221M-S	220	5.5	3.11	0.22	0.20
SSL0402T-331M-S	330	5	3.80	0.18	0.16
SSL0402T-471M-S	470	4	5.06	0.16	0.15
SSL0402T-681M-S	680	3	9.20	0.14	0.12
SSL0401T-102M-S	1000	2	13.8	0.10	0.07

* Inductance Tested at 0.1 Vrms, 100 KHz

** Inductance Drop = 10% Typ. at Isat.

*** $\Delta T = 30^{\circ}\text{C}$ Rise Typ at Iirms.

Operating Temperature Range -40°C to $+85^{\circ}\text{C}$

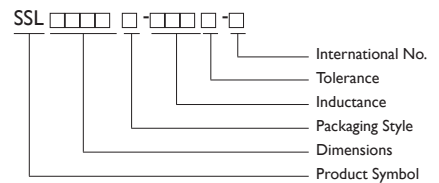


FEATURES

High energy storage and very low resistance.

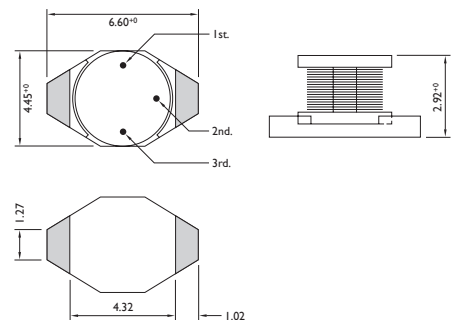
Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (nH)	TEST FREQUENCY (MHZ)	Rdc Max	Isat (A)	Irms (A)	SRF (KHz)Typ.
SSL0402T-1R0 □ -N	1	100KHz,0.1V	0.05	2.9	2.9	130
SSL0402T-1R5 □ -N	1.5	100KHz,0.1V	0.05	2.6	2.8	115
SSL0402T-2R2 □ -N	2.2	100KHz,0.1V	0.07	2.3	2.4	90
SSL0402T-3R3 □ -N	3.3	100KHz,0.1V	0.08	2	2	70
SSL0402T-4R7 □ -N	4.7	100KHz,0.1V	0.09	1.5	1.5	50
SSL0402T-5R6 □ -N	5.6	100KHz,0.1V	0.11	1.3	-	47
SSL0402T-6R8 □ -N	6.8	100KHz,0.1V	0.13	1.2	1.4	45
SSL0402T-100 □ -N	10	100KHz,0.1V	0.16	1.1	1.1	35
SSL0402T-150 □ -N	15	100KHz,0.1V	0.23	0.9	1.2	30
SSL0402T-220 □ -N	22	100KHz,0.1V	0.37	0.7	0.8	20
SSL0402T-330 □ -N	33	100KHz,0.1V	0.51	0.58	0.6	15
SSL0402T-470 □ -N	47	100KHz,0.1V	0.64	0.5	0.5	14
SSL0402T-680 □ -N	68	100KHz,0.1V	0.86	0.4	0.4	11
SSL0402T-101 □ -N	100	100KHz,0.1V	1.27	0.31	0.3	9
SSL0402T-151 □ -N	150	100KHz,0.1V	2	0.27	0.25	6
SSL0402T-221 □ -N	220	100KHz,0.1V	3.11	0.22	0.2	5.5
SSL0402T-331 □ -N	330	100KHz,0.1V	3.8	0.18	0.16	5
SSL0402T-471 □ -N	470	100KHz,0.1V	5.66	0.16	0.15	4
SSL0402T-681 □ -N	680	100KHz,0.1V	9.2	0.14	0.12	3
SSL0402T-102 □ -N	1000	100KHz,0.1V	13.8	0.1	0.07	2

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

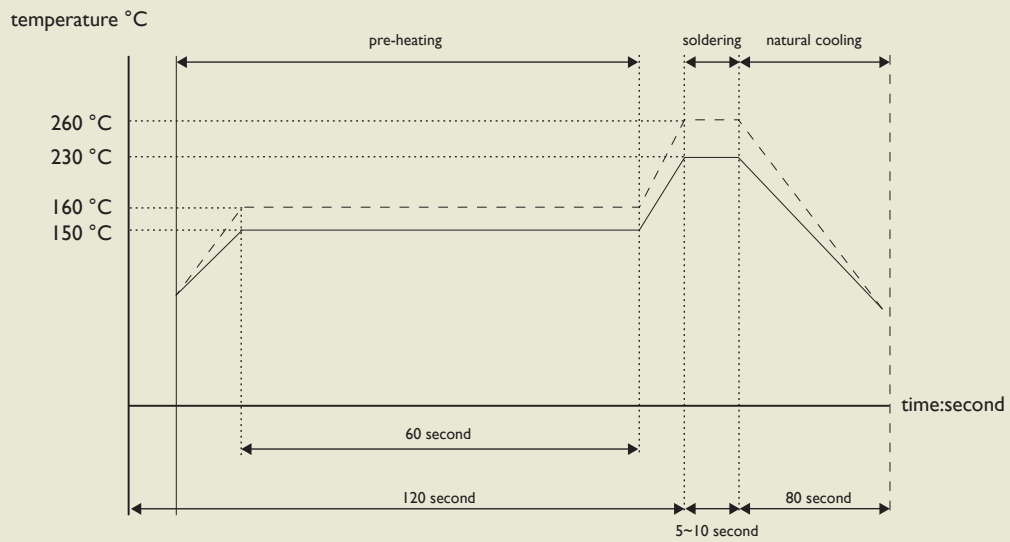
4. ΔT=30°C rise typ.at I_{rms}.

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



RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder	———
for: lead-free solder	- - - - -

SMD Power Inductors

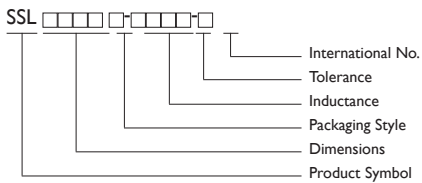
SSL0802 Series



FEATURES

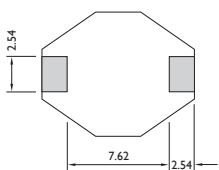
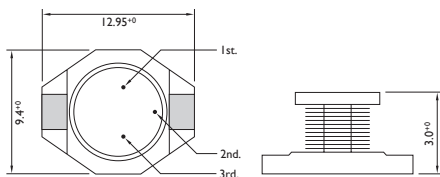
- High energy storage and very low resistance.
- Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

- Notebook computers, Sep-up and step-down converters
- Flash, memory programmers. Etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$)*	SRF (MHz)	DC RESISTANCE (Ω°)	Isat** (A)	Irms*** (A)
SSL0802T-100M-S	10	35	0.09	2.4	2.0
SSL0802T-150M-S	15	33	0.12	2.0	1.5
SSL0802T-220M-S	22	25	0.19	1.6	1.3
SSL0802T-330M-S	33	19	0.25	1.4	1.1
SSL0802T-470M-S	47	14	0.32	1.0	0.8
SSL0802T-680M-S	68	12	0.55	0.9	0.7
SSL0802T-101M-S	100	10	0.7	0.7	0.6
SSL0802T-151M-S	150	8	1.0	0.6	0.5
SSL0802T-221M-S	220	6	1.6	0.5	0.4
SSL0802T-331M-S	330	5	2.2	0.4	0.3
SSL0802T-471M-S	470	4	3.3	0.3	0.2
SSL0802T-681M-S	680	3	4.4	0.2	0.1
SSL0802T-102M-S	1000	2.5	7.0	0.1	0.05

* Inductance Tested at 0.1 Vrms, 100 KHz

** Inductance Drop = 10% Typ. at Isat.

*** $\Delta T = 30^{\circ}\text{C}$ Rise Typ at I rms.Operating Temperature Range -40°C to $+85^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (nH)	TEST FREQUENCY (MHZ)	Rdc Max	Isat (A)	Irms (A)	SRF (KHz)Typ.
SSL0802T-100 □ -N	10	100KHz,0.1V	0.09	2.4	2	35
SSL0802T-150 □ -N	15	100KHz,0.1V	0.12	2	1.5	33
SSL0802T-220 □ -N	22	100KHz,0.1V	0.19	1.6	1.3	25
SSL0802T-330 □ -N	33	100KHz,0.1V	0.25	1.4	1.1	19
SSL0802T-470 □ -N	47	100KHz,0.1V	0.32	1	0.8	14
SSL0802T-680 □ -N	68	100KHz,0.1V	0.55	0.9	0.7	12
SSL0802T-101 □ -N	100	100KHz,0.1V	0.7	0.7	0.6	10
SSL0802T-151 □ -N	150	100KHz,0.1V	1	0.6	0.5	8
SSL0802T-221 □ -N	220	100KHz,0.1V	1.6	0.5	0.4	6
SSL0802T-331 □ -N	330	100KHz,0.1V	2.2	0.4	0.3	5
SSL0802T-471 □ -N	470	100KHz,0.1V	3.3	0.3	0.2	4
SSL0802T-681 □ -N	680	100KHz,0.1V	4.4	0.2	0.1	3
SSL0802T-102 □ -N	1000	100KHz,0.1V	7	0.1	0.05	2.5

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

4. ΔT=30°C rise typ.at Irms.

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

SMD Power Inductors

SSL0804 Series

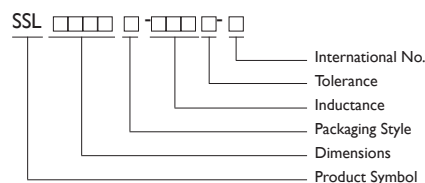


FEATURES

High energy storage and very low resistance.

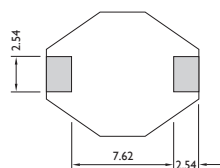
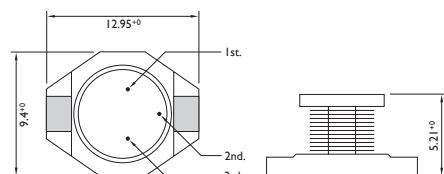
Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$) *	SRF (MHz)	DC RESISTANCE ($\Omega \pm 0$) $\pm 15\%$	Isat ** (A)	Irms *** (A)
SSL0804T-1R0M-S	1.0	100	0.009	9.0	6.8
SSL0804T-1R5M-S	1.5	90	0.010	8.0	6.4
SSL0804T-2R2M-S	2.2	80	0.012	7.0	6.1
SSL0804T-3R3M-S	3.3	65	0.015	6.4	5.4
SSL0804T-4R7M-S	4.7	45	0.018	5.4	4.8
SSL0804T-6R8M-S	6.8	38	0.027	4.6	4.4
SSL0804T-100M-S	10	30	0.038	3.8	3.9
SSL0804T-150M-S	15	27	0.046	3.0	3.1
SSL0804T-220M-S	22	19	0.085	2.6	2.7
SSL0804T-330M-S	33	15	0.10	2.0	2.1
SSL0804T-470M-S	47	12	0.14	1.6	1.8
SSL0804T-680M-S	68	10	0.20	1.4	1.5
SSL0804T-101M-S	100	9	0.28	1.2	1.3
SSL0804T-151M-S	150	6	0.40	1.0	1.0
SSL0804T-221M-S	220	5	0.61	0.8	0.8
SSL0804T-331M-S	330	4.5	1.02	0.6	0.6
SSL0804T-471M-S	470	3.5	1.27	0.5	0.5
SSL0804T-681M-S	680	2.5	2.02	0.4	0.4
SSL0804T-102M-S	1000	2.0	3.0	0.3	0.3

* Inductance Tested at 0.1 Vrms, 100 KHz

** Inductance Drop = 10% Typ. at Isat.

*** $\Delta T = 15^\circ\text{C}$ Rise Typ at I rms.

Operating Temperature Range -40°C to $+85^\circ\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (nH)	TEST FREQUENCY (MHZ)	Rdc Max	Isat (A)	Irms (A)	SRF (KHz)Typ.	COLOR CODE		
							1st	2nd	3rd
SSL0804T-1R0 □ -N	1	100KHz,0.1V	0.009+0	9	6.8	100	BRN	BLK	RED
SSL0804T-1R5 □ -N	1.5	100KHz,0.1V	0.010+0	8	6.4	90	BRN	GRN	RED
SSL0804T-2R2 □ -N	2.2	100KHz,0.1V	0.012+0	7	6.1	80	RED	RED	RED
SSL0804T-3R3 □ -N	3.3	100KHz,0.1V	0.015+0	6.4	5.4	65	ORN	ORN	RED
SSL0804T-4R7 □ -N	4.7	100KHz,0.1V	0.018+0	5.4	4.8	45	YEL	VIO	RED
SSL0804T-6R8 □ -N	6.8	100KHz,0.1V	0.027+0	4.6	4.4	38	BLU	GRY	RED
SSL0804T-100 □ -N	10	100KHz,0.1V	0.038+0	3.8	3.9	30	BRN	BLK	ORN
SSL0804T-120 □ -N	12	100KHz,0.1V	0.0432+0	3.6	3.5	27	BRN	RED	ORN
SSL0804T-150 □ -N	15	100KHz,0.1V	0.046+0	3	3.1	27	BRN	GRN	ORN
SSL0804T-220 □ -N	22	100KHz,0.1V	0.085+0	2.6	2.7	19	RED	RED	ORN
SSL0804T-330 □ -N	33	100KHz,0.1V	0.100+0	2	2.1	15	ORN	ORN	ORN
SSL0804T-470 □ -N	47	100KHz,0.1V	0.140+0	1.6	1.8	12	YEL	VIO	ORN
SSL0804T-680 □ -N	68	100KHz,0.1V	0.200+0	1.4	1.5	10	BLU	GRY	ORN
SSL0804T-101 □ -N	100	100KHz,0.1V	0.280+0	1.2	1.3	9	BRN	BLK	YEL
SSL0804T-151 □ -N	150	100KHz,0.1V	0.400+0	1	1	6	BRN	GRN	YEL
SSL0804T-221 □ -N	220	100KHz,0.1V	0.610+0	0.8	0.8	5	RED	RED	YEL
SSL0804T-331 □ -N	330	100KHz,0.1V	1.020+0	0.6	0.6	4.5	ORN	ORN	YEL
SSL0804T-471 □ -N	470	100KHz,0.1V	1.270+0	0.5	0.5	3.5	YEL	VIO	YEL
SSL0804T-681 □ -N	680	100KHz,0.1V	2.020+0	0.4	0.4	2.5	BLU	GRY	YEL
SSL0804T-102 □ -N	1000	100KHz,0.1V	3.000+0	0.3	0.3	2	BRN	BLK	GRN

NOTE : □ -tolerance M=±20%

1. Operating temperature range -40°C~85°C

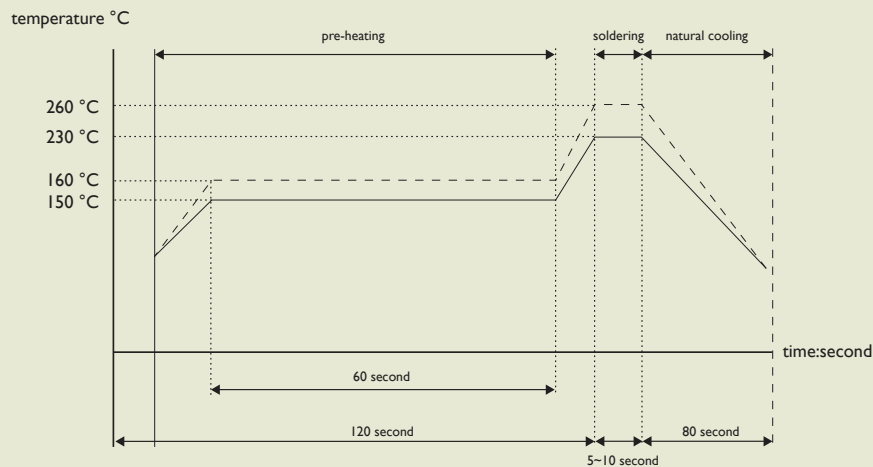
2. Inductance drop 20% typ. at last

4. ΔT=15°C rise typ. at Irms.

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

RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder

for: lead-free solder

SMD Power Inductors

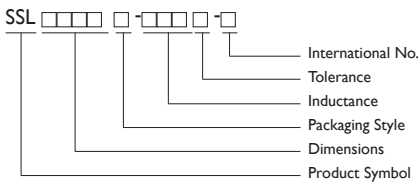
SSL0810 Series



FEATURES

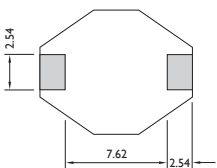
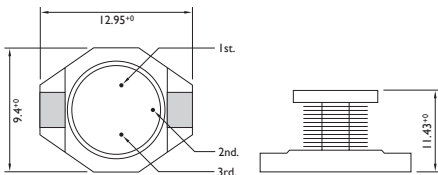
- High energy storage and very low resistance.
- Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

- Notebook computers, Sep-up and step-down converters
- Flash, memory programmers. Etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$)*	SRF (MHz)	DC RESISTANCE (Ω°)	Isat** (A)	Irms*** (A)
SSL0810T-100M-S	10	22	0.033	8.0	3.5
SSL0810T-150M-S	15	18	0.042	7.0	3.0
SSL0810T-220M-S	22	11	0.054	5.5	2.5
SSL0810T-330M-S	33	9	0.08	4.0	2.0
SSL0810T-470M-S	47	8	0.10	3.8	1.6
SSL0810T-680M-S	68	7	0.17	3.0	1.2
SSL0810T-101M-S	100	5	0.22	2.5	1.2
SSL0810T-151M-S	150	4	0.34	2.0	0.9
SSL0810T-221M-S	220	3.5	0.44	1.6	0.7
SSL0810T-331M-S	330	2.5	0.70	1.2	0.6
SSL0810T-471M-S	470	2	0.95	1.0	0.3
SSL0810T-681M-S	680	2	1.2	1.0	0.2
SSL0810T-102M-S	1000	1.5	2.0	0.8	0.1

* Inductance Tested at 0.1 Vrms, 100 KHz

** Inductance Drop = 10% Typ. at Isat.

*** $\Delta T = 40^{\circ}\text{C}$ Rise Typ at I rms.Operating Temperature Range -40°C to $+85^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (nH)	TEST FREQUENCY (MHZ)	R _{dc} Max	I _{sat} (A)	I _{rms} (A)	SRF (KHz)Typ.
SSL0810T-4R7 □ -N	4.7	100KHz,0.1V	0.033	8	3.5	25
SSL0810T-100 □ -N	10	100KHz,0.1V	0.033	8	3.5	22
SSL0810T-150 □ -N	15	100KHz,0.1V	0.042	7	3	18
SSL0810T-220 □ -N	22	100KHz,0.1V	0.054	5.5	2.5	11
SSL0810T-330 □ -N	33	100KHz,0.1V	0.08	4	2	9
SSL0810T-470 □ -N	47	100KHz,0.1V	0.1	3.8	1.6	8
SSL0810T-680 □ -N	68	100KHz,0.1V	0.17	3	1.2	7
SSL0810T-101 □ -N	100	100KHz,0.1V	0.22	2.5	1.2	5
SSL0810T-151 □ -N	150	100KHz,0.1V	0.34	2	0.9	4
SSL0810T-221 □ -N	220	100KHz,0.1V	0.44	1.6	0.7	3.5
SSL0810T-331 □ -N	330	100KHz,0.1V	0.7	1.2	0.6	2.5
SSL0810T-471 □ -N	470	100KHz,0.1V	0.95	1	0.3	2
SSL0810T-681 □ -N	680	100KHz,0.1V	1.2	1	0.2	2
SSL0810T-102 □ -N	1000	100KHz,0.1V	2	0.8	0.1	1.5

NOTE : □ -tolerance M=±20%

1. Operating temperature range -40°C~85°C

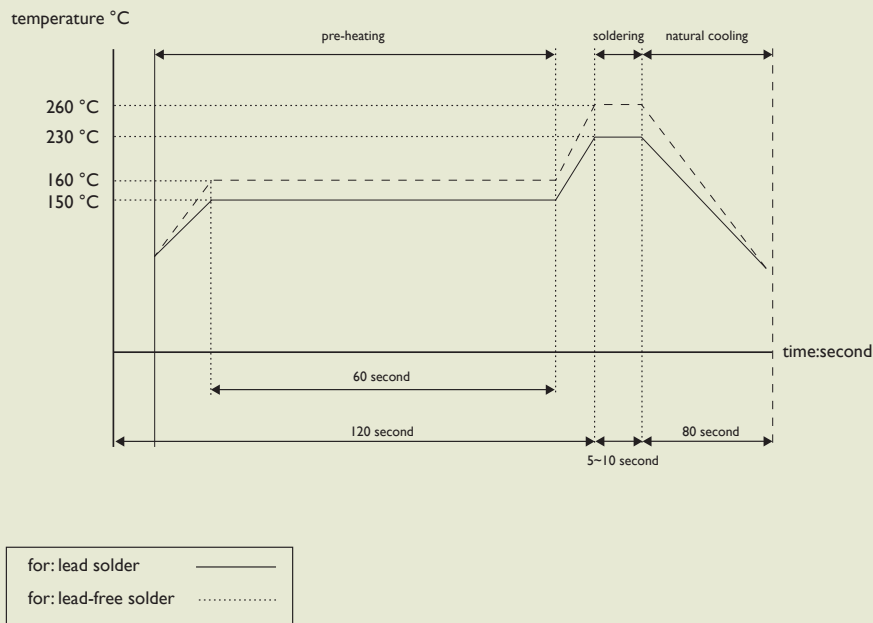
2. Inductance drop 20% typ. at last

4. ΔT=40°C rise typ. at I_{rms}.

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

RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



SMD Power Inductors

SSL I 306 Series

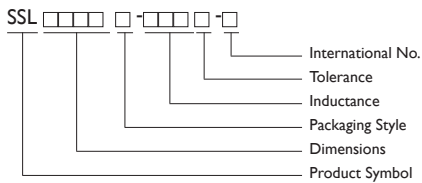


FEATURES

High energy storage and very low resistance.

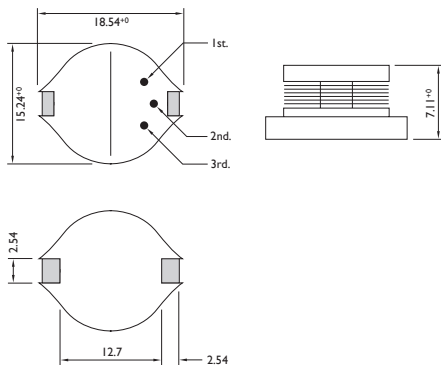
Smallest size and high performance

PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M: $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$)*	SRF (MHz)	DC RESISTANCE (Ω^{th})	Isat** (A)	Irms*** (A)
SSLI306T-1R0M-S	1.0	80	0.011	20	8.6
SSLI306T-2R2M-S	2.2	80	0.014	16	7.1
SSLI306T-3R3M-S	3.3	60	0.016	14	6.2
SSLI306T-5R6M-S	5.6	40	0.022	12	5.3
SSLI306T-100M-S	10	30	0.032	10	4.3
SSLI306T-150M-S	15	22	0.036	8.0	4.0
SSLI306T-220M-S	22	20	0.047	7.0	3.5
SSLI306T-330M-S	33	15	0.066	5.5	3.0
SSLI306T-470M-S	47	9	0.087	4.5	2.6
SSLI306T-680M-S	68	8	0.13	3.5	2.3
SSLI306T-101M-S	100	7	0.19	3.0	1.8
SSLI306T-151M-S	150	6	0.25	2.6	1.5
SSLI306T-221M-S	220	5	0.38	2.4	1.2
SSLI306T-331M-S	330	4	0.56	1.9	1.0
SSLI306T-471M-S	470	3	0.85	1.4	0.82
SSLI306T-681M-S	680	2.5	1.2	1.2	0.72
SSLI306T-102M-S	1000	2	1.8	1.0	0.56

* Inductance Tested at 0.1 Vrms, 100 KHz

** Inductance Drop = 10% Typ. at Isat.

*** $\Delta T = 40^\circ\text{C}$ Rise Typ at I rms.

Operating Temperature Range -40°C to $+85^\circ\text{C}$



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (nH)	TEST FREQUENCY (MHZ)	R _{dc} (Ω)	I _{sat} (A)	I _{rms} (A)	SRF (KHz)Typ.
SSLI306T-1R0 □ -N	1	100KHz,0.1V	0.011+15%	20	8.6	80
SSLI306T-2R2 □ -N	2.2	100KHz,0.1V	0.014+15%	16	7.1	80
SSLI306T-3R3 □ -N	3.3	100KHz,0.1V	0.016+15%	14	6.2	60
SSLI306T-5R6 □ -N	5.6	100KHz,0.1V	0.022+15%	12	5.3	40
SSLI306T-100 □ -N	10	100KHz,0.1V	0.032+15%	10	4.3	30
SSLI306T-150 □ -N	15	100KHz,0.1V	0.036+15%	8	4	22
SSLI306T-220 □ -N	22	100KHz,0.1V	0.047+15%	7	3.5	20
SSLI306T-330 □ -N	33	100KHz,0.1V	0.066+15%	5.5	3	15
SSLI306T-470 □ -N	47	100KHz,0.1V	0.087+15%	4.5	2.6	9
SSLI306T-680 □ -N	68	100KHz,0.1V	0.13+15%	3.5	2.3	8
SSLI306T-101 □ -N	100	100KHz,0.1V	0.19+15%	3	1.8	7
SSLI306T-151 □ -N	150	100KHz,0.1V	0.25+15%	2.6	1.5	6
SSLI306T-221 □ -N	220	100KHz,0.1V	0.38+15%	2.4	1.2	5
SSLI306T-331 □ -N	330	100KHz,0.1V	0.56+15%	1.9	1	4
SSLI306T-471 □ -N	470	100KHz,0.1V	0.85+15%	1.4	0.82	3
SSLI306T-681 □ -N	680	100KHz,0.1V	1.2+15%	1.2	0.72	2.5
SSLI306T-102 □ -N	1000	100KHz,0.1V	1.8+15%	1	0.56	2

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

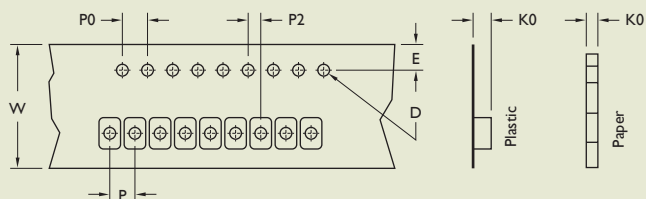
4. ΔT=40°C rise typ.at I_{rms}.

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



TAPE DIMENSIONS

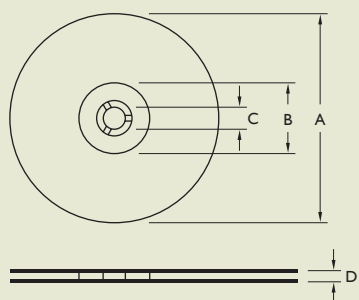
Dimensions : mm



TYPE	TAPE DIMENSIONS						
	K0	D	E	W	P	P0	P2
SSL0402	3.2	1.55	1.75	12	8	4	2
SSL0802	3.75	1.55	1.75	24	16	4	2
SSL0804	5.4	1.55	1.75	24	16	4	2
SSL0810	11.5	1.55	1.75	24	20	4	2
SSL1306	7.5	1.55	1.75	32	20	4	2

REEL DIMENSIONS

Dimensions : mm

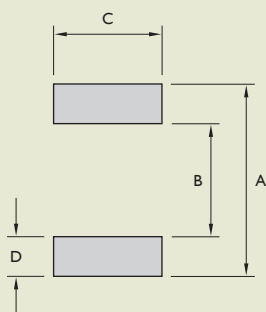


TYPE	REEL DIMENSIONS				QUANTITY /REEL	
	A	B	C	D	178	330
SSL0402	330	100	13	13.4	-	2500
	178	60		13.2	750	-
SSL0802	330	100	13	24.4	-	1000
SSL0804	330	100	13	24.4	-	750
SSL0810	330	100	13	24.4	-	225
SSL1306	330	100	13	33.4	-	250

RECOMMENDED PATTERN

Dimensions : mm

Land Pattern



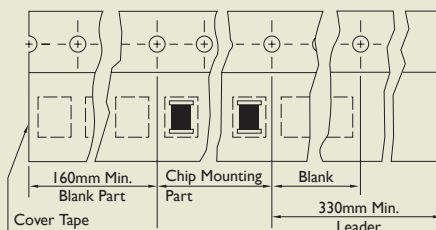
RECOMMENDED PATTERN

	A	B	C	D
SSL0402	6.86	4.06	3.58	1.40
SSL0802	13.21	7.37	2.79	2.92
SSL0804	13.21	7.37	2.79	2.92
SSL0810	13.21	7.37	2.79	2.92
SSL1306	18.29	12.45	2.79	2.92

TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene





SSL SERIES RELIABILITY TEST

I-1 MECHANICAL PERFORMANCE

NO.	ITEM	SPECIFICATION	TEST CONDITIONS
I-1-1	Vibration	Appearance : No Damage L Change : within $\pm 10\%$ Q Change : within $\pm 30\%$ RDC : within Specification	Test device shall be soldered on the substrate. Oscillation Frequency : 10 to 55 to 10Hz for 1Min. Amplitude : 1.5mm Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs.
I-1-2	Resistance to Soldering Heat	Appearance : No Damage	Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : 260 \pm 5°C Immersion Time : 10 \pm 1Sec.
I-1-3	Solderability	The electrodes shall be at least 90% covered with new solder coating.	Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : 230 \pm 5°C Immersion Time : 4 \pm 1Sec.

I-2 ENVIRONMENTAL PERFORMANCE

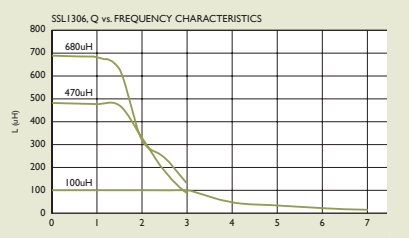
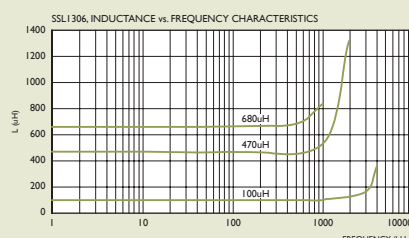
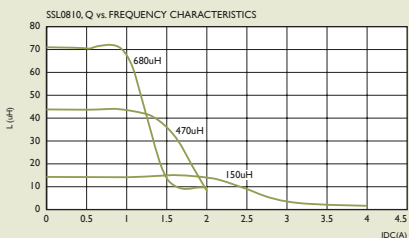
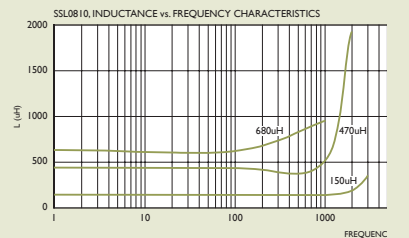
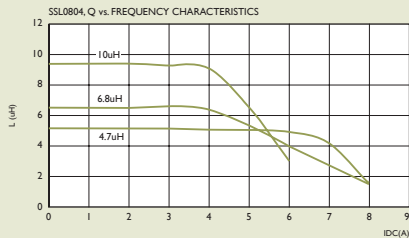
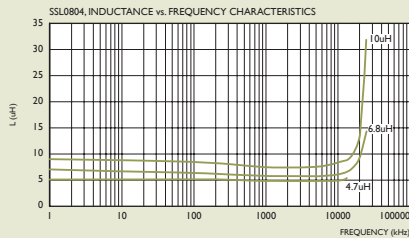
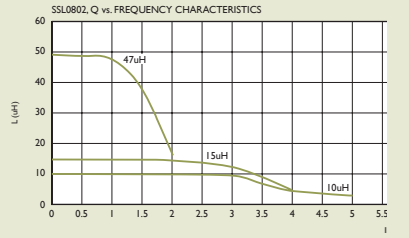
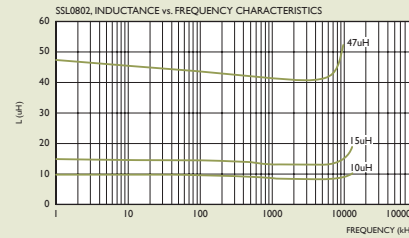
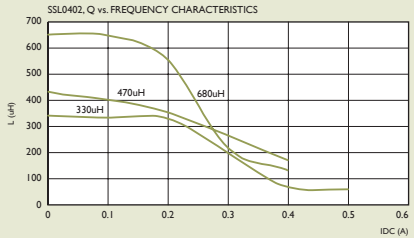
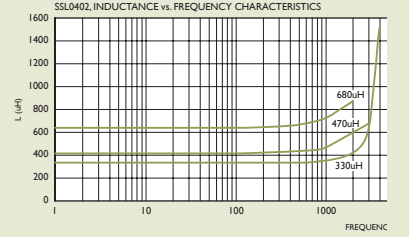
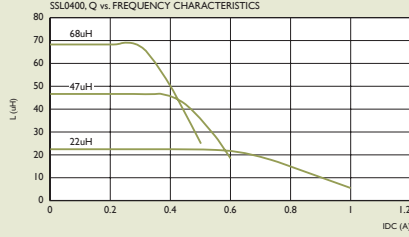
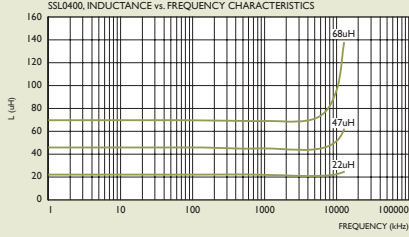
NO.	ITEM	SPECIFICATION	TEST CONDITIONS															
I-2-1	Temperature Shock	Appearance : No Damage L Change : within $\pm 10\%$ L Change : within $\pm 30\%$ RDC : within Specification	10 Cycles (Air to Air) Cycles shall Consist of : 30Min. Exposure to -55°C 30Min. Exposure to 125 \pm C 15Sec. Max. Transition between Temperatures Measured after Exposure in the Room Condition for 24Hrs.															
I-2-2	Temperature Cycle		One Cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (Min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 \pm 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 \pm 2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85 \pm 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 \pm 2</td> <td>3</td> </tr> </tbody> </table> Total : 100 Cycles Measured after Exposure in the Room Condition for 24Hrs.	Step	Temperature (°C)	Time (Min.)	1	-25 \pm 3	30	2	25 \pm 2	3	3	85 \pm 3	30	4	25 \pm 2	3
Step	Temperature (°C)	Time (Min.)																
1	-25 \pm 3	30																
2	25 \pm 2	3																
3	85 \pm 3	30																
4	25 \pm 2	3																
I-2-3	Humidity Resistance		Temperature : 40 \pm 2°C Relative Humidity : 90 ~ 95% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															
I-2-4	High Temperature Resistance		Temperature : 85 \pm 3°C Relative Humidity : 20% Applied Current : Rated Current Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															
I-2-5	Low Temperature Resistance		Temperature : -25 \pm 3°C Relative Humidity : 0% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															



TYPICAL ELECTRICAL CHARACTERISTICS

Curves of SSL Series

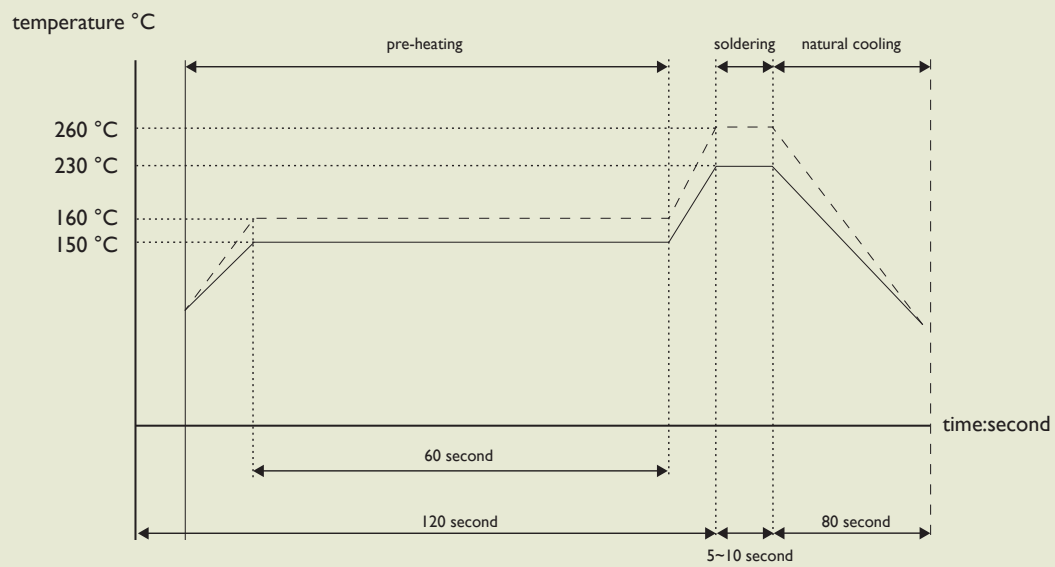
Test Instruments :





RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder	———
for: lead-free solder