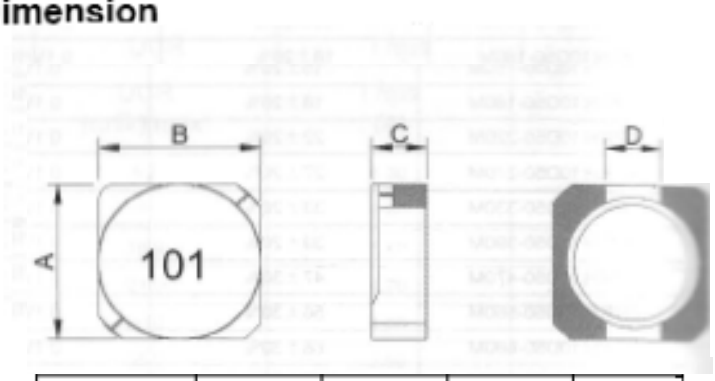
SMD Type Power Inductor

SSL6D38-SERIES

1. Features

1.Low profile very effective in space-conscious applications.
2.Low resistance and high energy storage.

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)
SSL6D38	7.0MAX	7.0MAX	4.0MAX	2.0REF

Units: mm

3. Part Numbering

SSL	6D38	-	101	Y
A	B		C	D

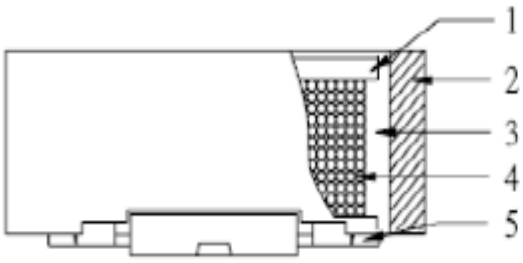
A:Series
B:Dimension A xC
C:Inductance 101=100uH
D:Inductance Tolerance M=±20%,Y=±30%

4.Specification

Part Number	luductance (uH)	Test Frequency (Hz)	DCR (Ω)MAX	Rated Current (A)MAX
SSL6D38-3R3Y	3.3±30%	0.1V/100K	0.020	3.5
SSL6D38-5R0Y	5.0±30%	0.1V/100K	0.024	2.9
SSL6D38-6R2Y	6.2±30%	0.1V/100K	0.027	2.5
SSL6D38-7R4Y	7.4±30%	0.1V/100K	0.031	2.3
SSL6D38-8R7Y	8.7±30%	0.1V/100K	0.034	2.2
SSL6D38-100Y	10 ±30%	0.1V/100K	0.038	2.0
SSL6D38-120Y	12±30%	0.1V/100K	0.053	1.7
SSL6D38-150Y	15±30%	0.1V/100K	0.057	1.6
SSL6D38-180Y	18±30%	0.1V/100K	0.092	1.5

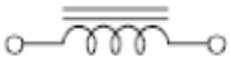
Part Nunber	luductance (uH)	Test Frequency (Hz)	DCR (Ω)MAX	Rated Current (A)MAX
SSL6D38-220Y	22±30%	0.1V/100K	0.095	1.3
SSL6D28-270Y	27±30%	0.1V/100K	0.109	1.2
SSL6D38-330Y	33±30%	0.1V/100K	0.124	1.1
SSL6D38-390Y	39±30%	0.1V/100K	0.138	1.0
SSL6D38-470Y	47±30%	0.1V/100K	0.155	0.95
SSL6D38-560Y	56±30%	0.1V/100K	0.202	0.85
SSL6D38-680Y	68±30%	0.1V/100K	0.234	0.75
SSL6D38-820Y	82±30%	0.1V/100K	0.324	0.70
SSL6D28-101Y	100±30%	0.1V/100K	0.358	0.65
SSL6D28-121Y	120±30%	0.1V/100K	0.470	0.59
SSL6D28-151Y	150±30%	0.1V/100K	0.580	0.54
SSL6D28-181Y	180±30%	0.1V/100K	0.690	0.49
SSL6D28-221Y	220±30%	0.1V/100K	0.890	0.43
SSL6D28-270Y	270±30%	0.1V/100K	1.290	0.40
SSL6D28-331Y	330±30%	0.1V/100K	1.700	0.37
SSL6D28-391Y	390±30%	0.1V/100K	1.750	0.34
SSL6D28-471Y	470±30%	0.1V/100K	2.200	0.32
SSL6D28-561Y	560±30%	0.1V/100K	2.850	0.29
SSL6D28-681Y	681±30%	0.1V/100K	3.200	0.25
SSL6D28-821Y	821±30%	0.1V/100K	4.050	0.22
SSL6D28-102Y	1000±30%	0.1V/100K	5.700	0.20

5.Material List

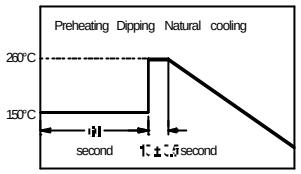
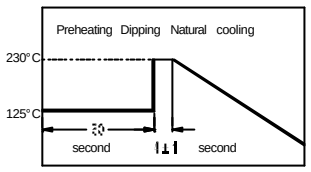


NO	ITEM	MATERIAL
1	CORE	FERRITE CORE (DR TYPE)
2	CORE	FERRITE CORE (RI TYPE)
3	GLUE	G500
4	WIRE	ENAMELLED COPPER WIRE
5	CLIP	SM212-032ET2N

6. Schematic Diagram

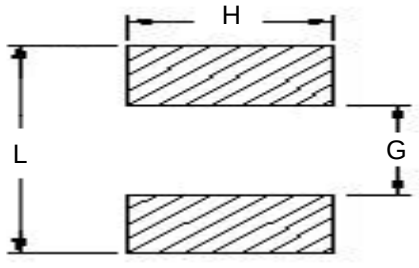


7. Reliability and Test Condition

Item	Performance	Test Condition
Operating Temperature	-20~+105℃	
Storage temperature	-40~+85℃	
Rated Current	Base on temp. rise & △L/LOA=25% typ.	
Temperature Rise Test	40℃ max. (Δt)	
Solder heat Resistance	Appearance: No significant abnormality Inductance change: Within ±20%. 	Preheat:150℃,60sec. Solder : H63A Solder tamperature:260±5℃ Flux: rosin Dip time:10±0.5sec.
Solderability	More than 90% of the terminal electrode should be covered with solder. 	Preheat:125±25℃,60sec. Solder : H63A Solder tamperature:230±5℃ Flux: rosin Dip time:4±1sec.
Thermal shock	Appearance: no damage. Inductance: within±20%of initial value. Measured:50 times	For SSL Condition for 1 cycle Step1:-25±2℃ 30±3 min. Step2:Room temperature 15 min. Step3:+85±5℃ 30±3 min. Step4: Room temperature 15 min. Number of cycles:50
Humidity Resistance Test	Appearance: no damage. Inductance: within±20%of initial value.	Temperature:40±2℃. Applied current:rated current. Duration:500 hrs. Humidity:90~95%
High Temperature Resistance Test	Appearance: no damage. Inductance: within±20%of initial value.	Temperature:85±2℃. Applied current:rated current. Duration:500 hrs.

Phase	Temperature(℃)	Time(min)
1	-25±2℃	30±3
2	Room Temp.	15
3	+85±2℃	30±3
4	Room Temp.	15

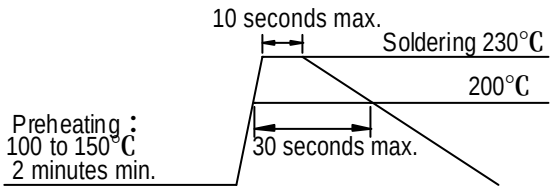
8. Recommended PC Board Pattern



L	G	H
7.3	2.0	7.3

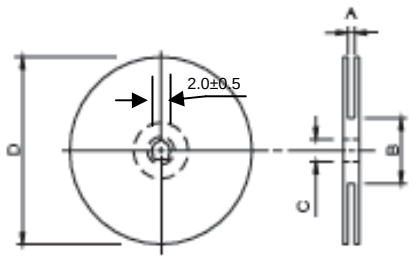
Units: mm

RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

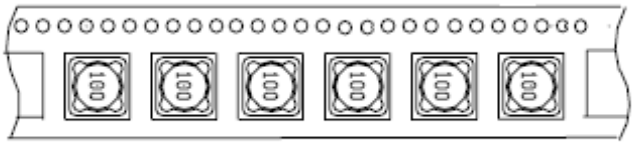


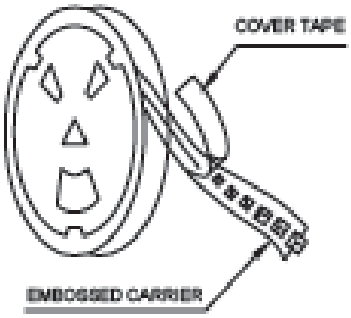
9. Packaging Information

9-1. Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	D (mm)
13x16m	16.0±0.5	100±1	13±0.2	330

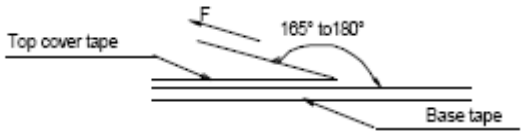




9-2. Packaging Quantity

SSL	6D28
Chip / Reel	1000
Carton	8000
Reel Style	13"x16m

9-3. Tearing Off Force



The force for tearing off cover tape is 15 to 60 grams in the arrow direction under the following conditions.

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions
  To maintain the solderability of terminal electrodes:
  1. Temperature and humidity conditions: Less than 40℃ and 70% RH.
  2. Recommended products should be used within 6 months form the time of delivery.
  3. The packaging material should be kept where no chlorine or sulfur exists in the air.

- Transportation
  1.Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.