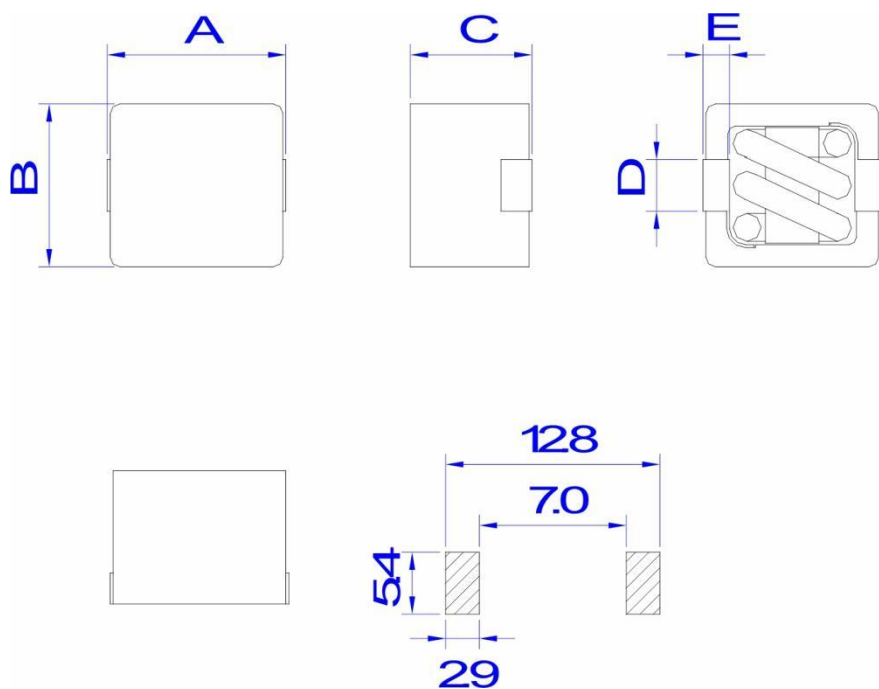


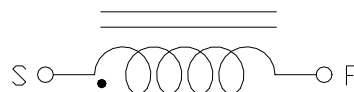
High Current SMD Power Inductor

◆ DIMENSION (: mm)



A	12.3(Max)
B	11.7(Max)
C	10.0(Max)
D	3.5 ± 0.2
E	1.9 ± 0.2

◆ EQUIVALENT CIRCUIT



◆ ELECTRICAL REQUIREMENTS

PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L0	330 ± 20% nH	100KHz/1.0V	■ CH-1062A LCR METER
DCR	1.50Max mohm	@25 ± 5°C	■ CH-16502BC IMPEDANCE METER
I-SAT	45 (Typ) Amps	≧ 80% L0	■ CH-3302 LCR METER+CH-1320 BIAS
I-DC	37 (Typ) Ampa	△T ≦ 40°C	■ DIGITATHERMOMTER DM6801A

◆ TEMPERATURE RATING

Operating: -25°C~85°C

◆ ESTING DATA

PARAMETER	L0	DCR	I-SAT	I-DC
UNIT	nH	mohm	Amps	Amps
SPECIFICATION	$330 \pm 20\%$	1.50 Max	45 (Typ)	37 (Typ)
CONDITION	100KHz/1.0V	@ $25 \pm 5^\circ\text{C}$	$\geq 80\%$ L0	$\Delta T \leq 40^\circ\text{C}$
1	325	1.21	OK	OK
2	331	1.25	OK	OK
3	342	1.21	OK	OK
4	350	1.24	OK	OK
5	328	1.23	OK	OK
6	316	1.22	OK	OK
7	335	1.24	OK	OK
8	327	1.22	OK	OK
9	346	1.21	OK	OK
10	355	1.22	OK	OK
MEAN	336	1.23		
R	39	0.04		

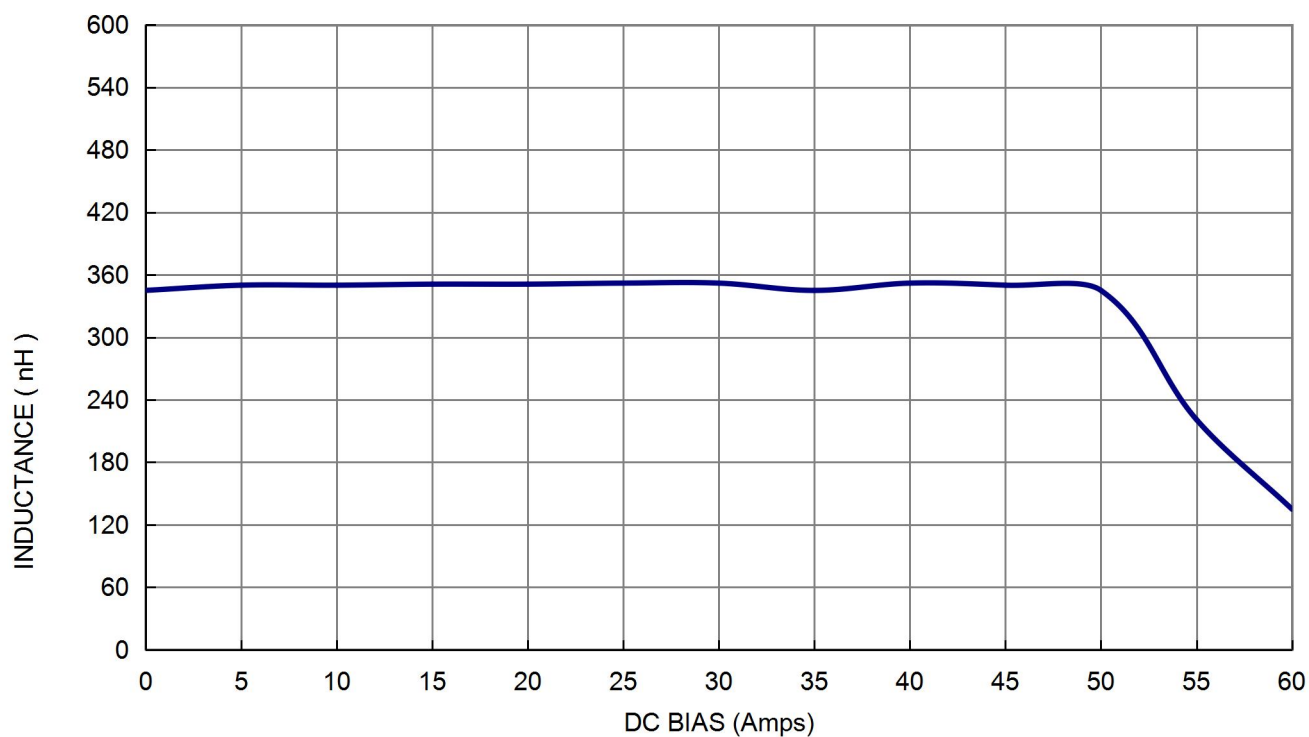
◆ AMBIENT CONDITION

TEMPERATURE	@ $25 \pm 5^\circ\text{C}$	HUMIDITY	70% RH Max
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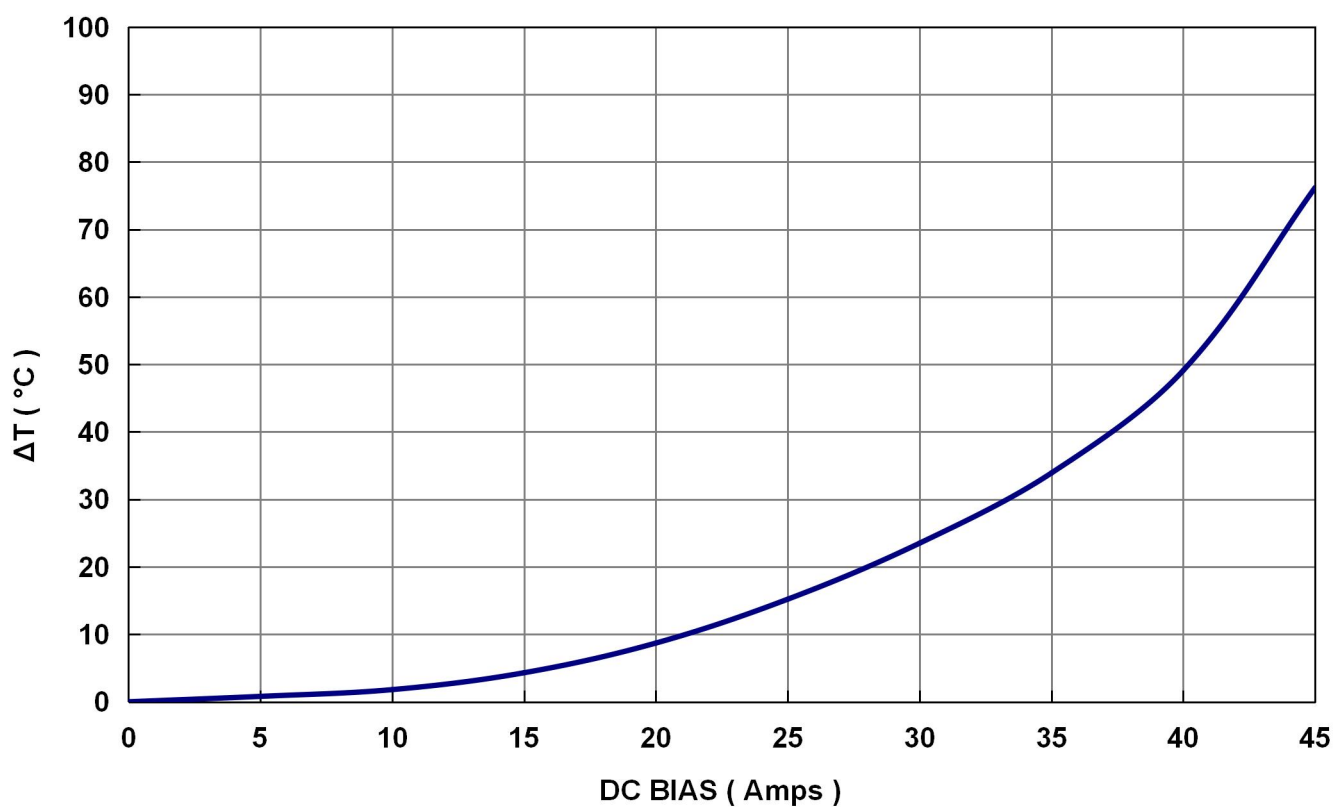
◆ TEST DATA

NO	A	B	C	D	E
	12.3(Max)	11.7(Max)	10.0(Max)	3.5 ± 0.2	1.9 ± 0.2
1	12.14	11.33	9.56	3.55	2.01
2	12.02	11.34	9.58	3.52	2.10
3	12.02	11.38	9.62	3.51	2.01
4	12.00	11.33	9.77	3.55	2.02
5	12.01	11.35	9.75	3.55	2.00
6	12.06	11.36	9.82	3.52	2.01
7	12.05	11.33	9.77	3.55	2.01
8	12.02	11.35	9.76	3.52	2.02
9	12.01	11.34	9.77	3.53	2.00
10	12.05	11.34	9.77	3.51	2.01
MEAN	12.04	11.35	9.61	3.53	2.02
R	0.14	0.05	0.26	0.04	0.10

INDUCTANCE (nH) VS DC BIAS (Amps)		
PART NO	SLA1210HR33MTT	
0 A	345	% L0
5 A	350	101.45%
10 A	350	101.45%
15 A	351	101.74%
20 A	351	101.74%
25 A	352	102.03%
30 A	352	102.03%
35 A	345	100.00%
40 A	352	102.03%
45 A	350	101.45%
50 A	345	100.00%
55 A	221	64.06%
60 A	135	39.13%
CONDITION: 100KHz 1.0Vrms		



TEMPERATURE RISE ΔT (°C) VS DC BIAS (Amps)		
PART NO	SLA1210HR33MTT	
0 A	0	0 Minutes
5 A	0.8	5 Minutes
10 A	1.8	10 Minutes
15 A	4.3	15 Minutes
20 A	8.7	20 Minutes
25 A	15.2	25 Minutes
30 A	23.5	30 Minutes
35 A	33.9	35 Minutes
40 A	49.1	40 Minutes
45 A	78.2	45 Minutes
CONDITION: 100KHz 1.0Vrms		



◆ SOLDERING CONDITIONS

Figure 1. Wave Soldering

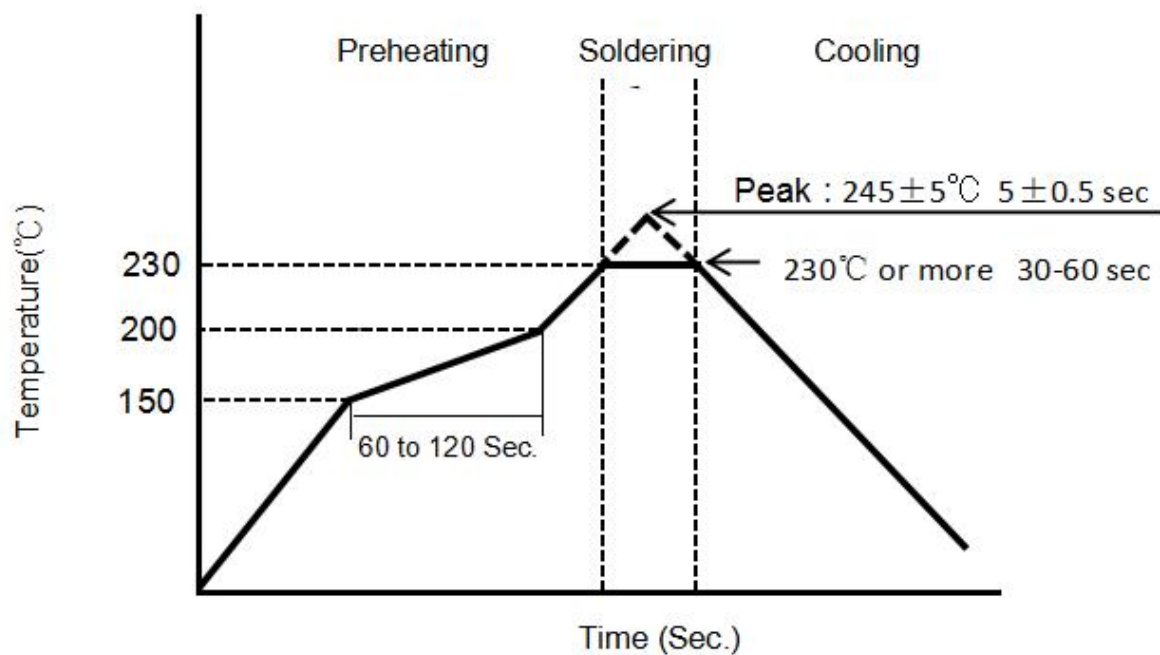
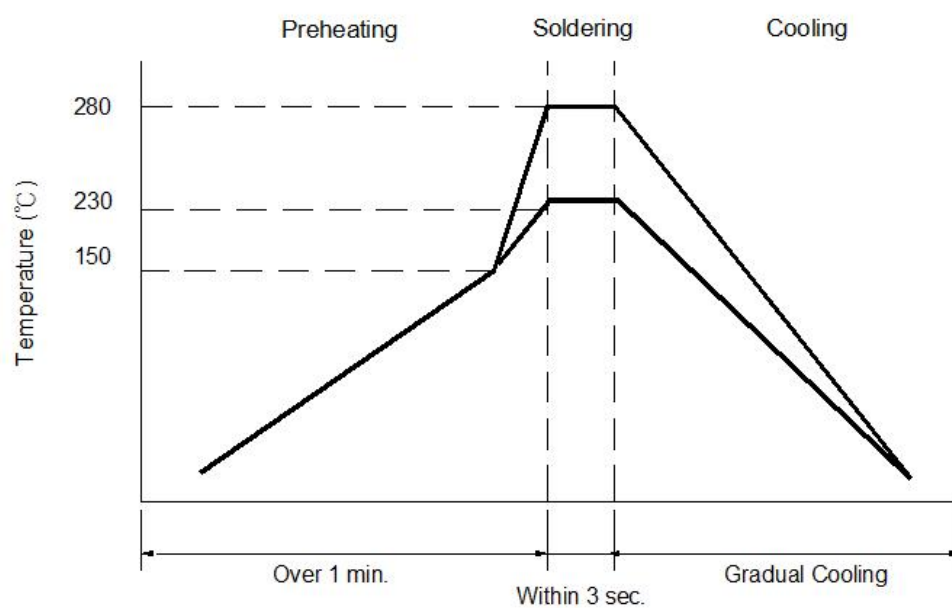
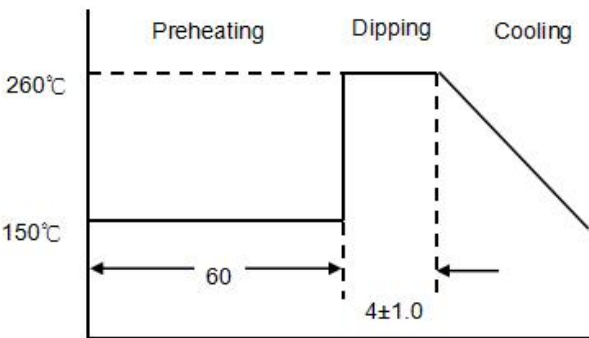
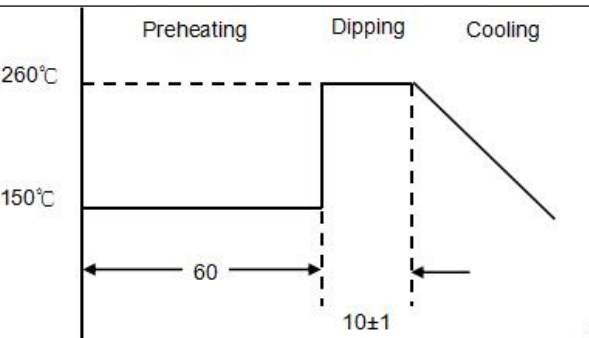


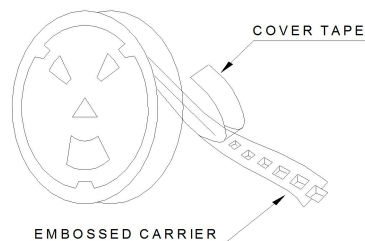
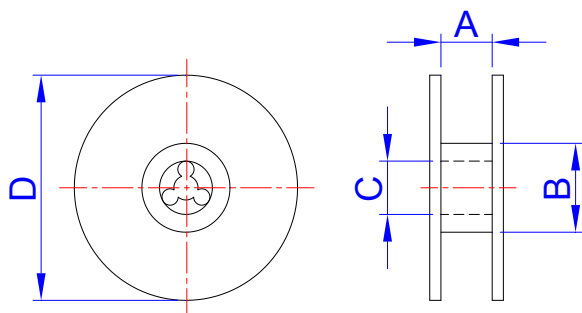
Figure 2. Hand Soldering



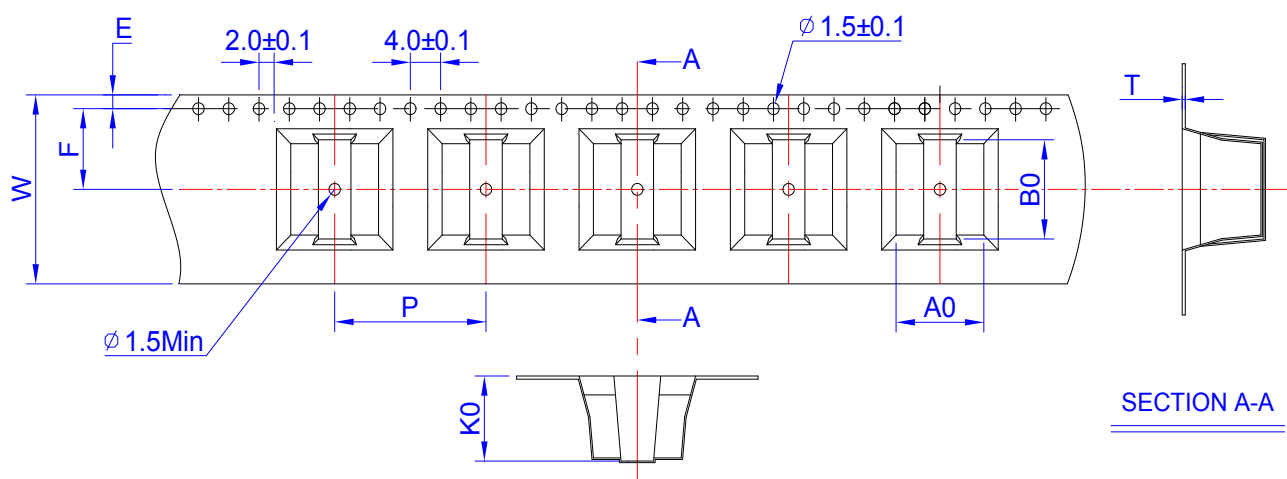
◆ MATERIAL IDENTIFICATION

Item	Specification	Conditions															
Operating temperature range	-40℃ ~ +125℃																
Storage temperature and humidity range	25±5℃ , 70% RH Max																
Solderability	More than 90% of the terminal electrode should be covered with solder.																
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.																
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 125±5℃ and 2 hour drying under normal condition.															
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in -40±5℃ and 2 hour drying under normal condition.															
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 10 cycles of following condition. <table border="1"> <thead> <tr> <th>Step</th><th>Temperature (℃)</th><th>Times (min.)</th></tr> </thead> <tbody> <tr> <td>1</td><td>-40±2</td><td>30</td></tr> <tr> <td>2</td><td>Room Temperature</td><td>Within 3</td></tr> <tr> <td>3</td><td>125±5</td><td>30</td></tr> <tr> <td>4</td><td>Room Temperature</td><td>Within 3</td></tr> </tbody> </table>	Step	Temperature (℃)	Times (min.)	1	-40±2	30	2	Room Temperature	Within 3	3	125±5	30	4	Room Temperature	Within 3
Step	Temperature (℃)	Times (min.)															
1	-40±2	30															
2	Room Temperature	Within 3															
3	125±5	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 40 ± 2℃ and 90 to 95% humidity , and 2 hour drying under normal condition.															
Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.															

◆ PACKAGING



Type	A(mm)	B(mm)	C(mm)	D(mm)
13" x 24mm	24.0 ± 0.5	75 ± 2	13.5 ± 0.5	330(REF)



P/N	W	A0	B0	K0	P	F	E	T	PCS/REEL
SLA1210HR33MTT	24.0 ± 0.3	11.8 ± 0.1	12.6 ± 0.1	10.55 ± 0.1	20.0 ± 0.1	11.5 ± 0.1	1.75 ± 0.1	0.4 ± 0.05	3000

Storage

1. Temperature and humidity conditions: Less than 40°C 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.