

SUNLEI

FOR APPROVAL

樣品承認書



客戶名稱
CUSTOMER

產品名稱
PRODUCT

Trans-inductor Voltage Regulator

產品型號
PART NO.

SLVR120611-SERIES

客戶型號
PART NO.

承認印 APPROVED BY

0

發行單位 ISSUE BY



昕磊科技股份有限公司

日期
DATE

2024/09/30

Office:

昕磊科技股份有限公司 SUNLEI TECHNOLOGY CORP.

ADD:新北市中和區中山路三段110號9樓之8

9F.-8, No.110,Sec.3,Zhongshan Rd;Zhonghe City,Taipei County 235,Taiwan

TEL:886-2-8228-7672 FAX:886-2-8228-7673

E-MAIL:andy.h@sunlei.com.tw

WEB:http://www.sunlei.com.tw

Factory:

東莞創頂電子有限公司 CHAINTK ELECTRONICS CORP.

ADD:中國廣東省東莞市虎門鎮樹田村樹安工業區

shuan industrial park, shutian Village Humen Town Dongguan City Guangdong Province China

TEL:86-769-38892012/ FAX:86-769-38892038

RECORD OF REVISION

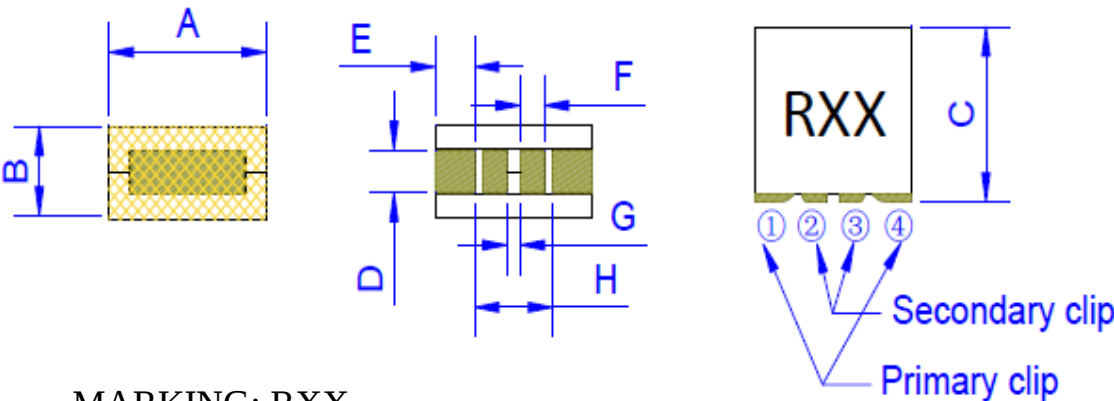
CUSTOMER:		PART NO.:	SLVR120611-SERIES	
DESCRIPTION:	Trans-inductor Voltage Regulator	CUSTOMER P/N:		
REV	DESCRIPTION ITEMS BE CHANGED OVER, (FROM / T0)	DATE	MADE BY	CHECKED
A1	INITIAL	2024/09/30	Yan	Aiji li
 昕磊科技股份有限公司 SUNLEI TECHNOLOGY CORP. TEL:(02)8228-7672傳真:(02)8228-7673		APPROVED Andy 2024/09/30	CHECKED A i j i 2024/09/30	DRAWN Yan 2024/09/30

SPECIFICATION FOR APPROVAL

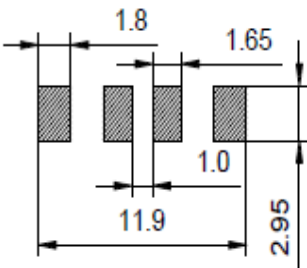
CUSTOMER:		PART NO.:	SLVR120611-SERIES
DESCRIPTION:	Trans-inductor Voltage Regulator	CUSTOMER P/N:	

1.CONFIGURATION DIMENSIONS(UNIT:mm)

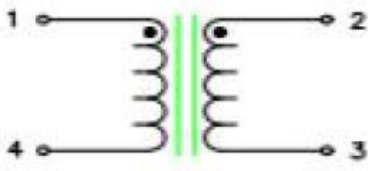
100% Lead Free and HF.



MARKING: RXX



SCHEMATIC



A	12.0MAX
B	6.0MAX
C	11.0±0.2
D	2.45±0.3
E	2.6±0.5
F	1.6±0.3
G	1.5REF
H	6.0REF

RECOMMENDER P.C.B LAYOUT

2.ELECTRICAL CHARACTERISTICS

Part number	Initial Inductance (nH)	Tolerance (±%)	DCR(primary clip)mΩ	DCR(secondary clip) mΩ	1-Saturation Current@ 25℃ (Amps)(typ)	2-Saturation Current@100℃ (Amps)(typ)	Heating Current (Amps)(typ)	
							primary	secondary
SLVR120611-R07L-R125/R37	70	15	0.125 ± 10%	0.37 ± 10%	160	140	77	45
SLVR120611-R08L-R125/R37	80	15	0.125 ± 10%	0.37 ± 10%	150	120	77	45
SLVR120611-R09L-R125/R37	90	15	0.125 ± 10%	0.37 ± 10%	135	115	77	45
SLVR120611-R105L-R125/R37	105	15	0.125 ± 10%	0.37 ± 10%	125	106	77	45
SLVR120611-R12L-R125/R37	120	15	0.125 ± 10%	0.37 ± 10%	102	87	77	45
SLVR120611-R15L-R125/R37	150	15	0.125 ± 10%	0.37 ± 10%	84	71	77	45
SLVR120611-R17L-R125/R37	170	15	0.125 ± 10%	0.37 ± 10%	70	60	77	45
SLVR120611-R20L-R125/R37	200	15	0.125 ± 10%	0.37 ± 10%	58	50	77	45

Note 1 : All test data is referenced to 25℃ ambient.

Note 2 : Irms : DC current (A) that will cause an approximate ΔT of 40℃

Note 3 : Isat : DC current (A) that will cause Lo to drop approximately 20%

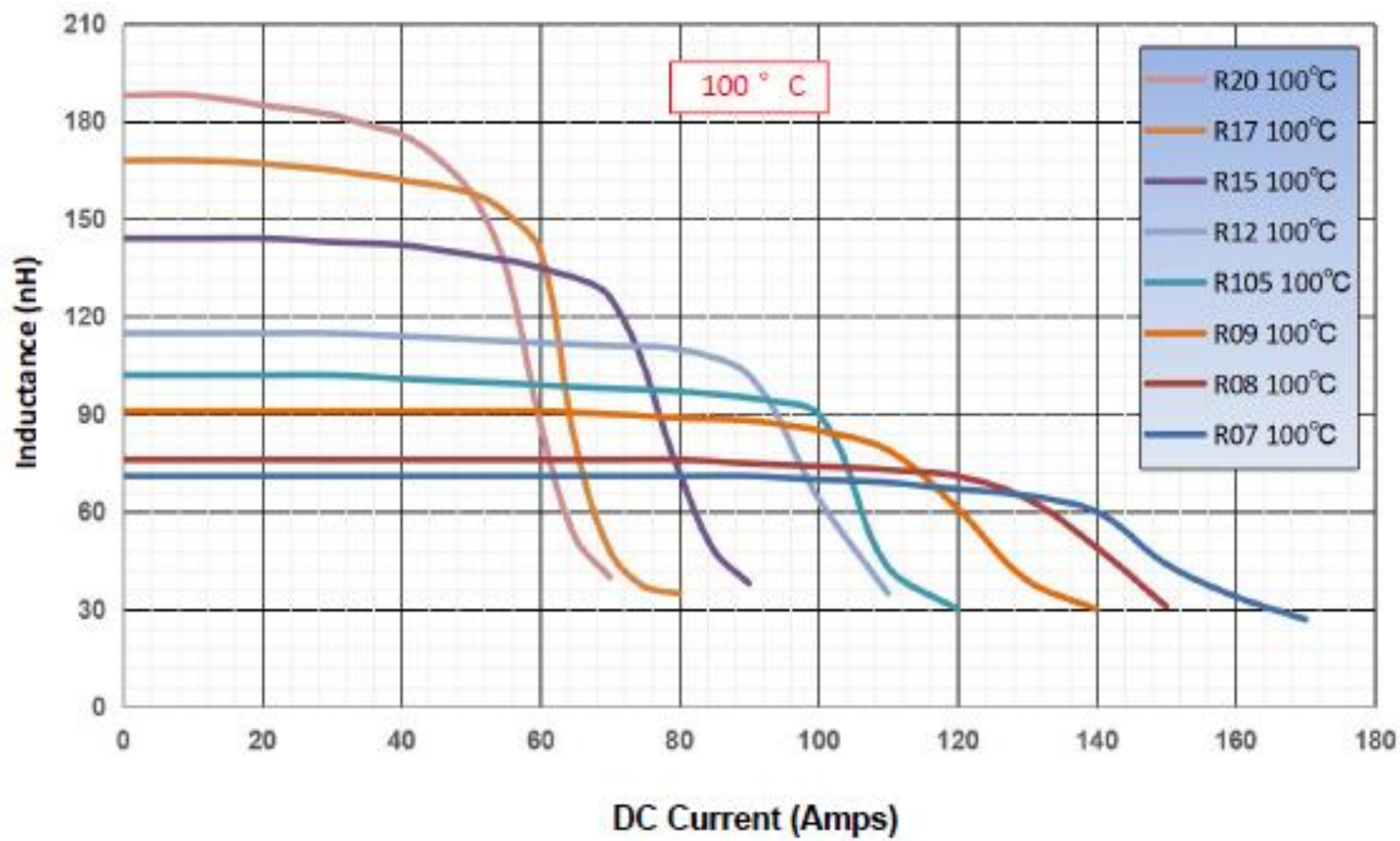
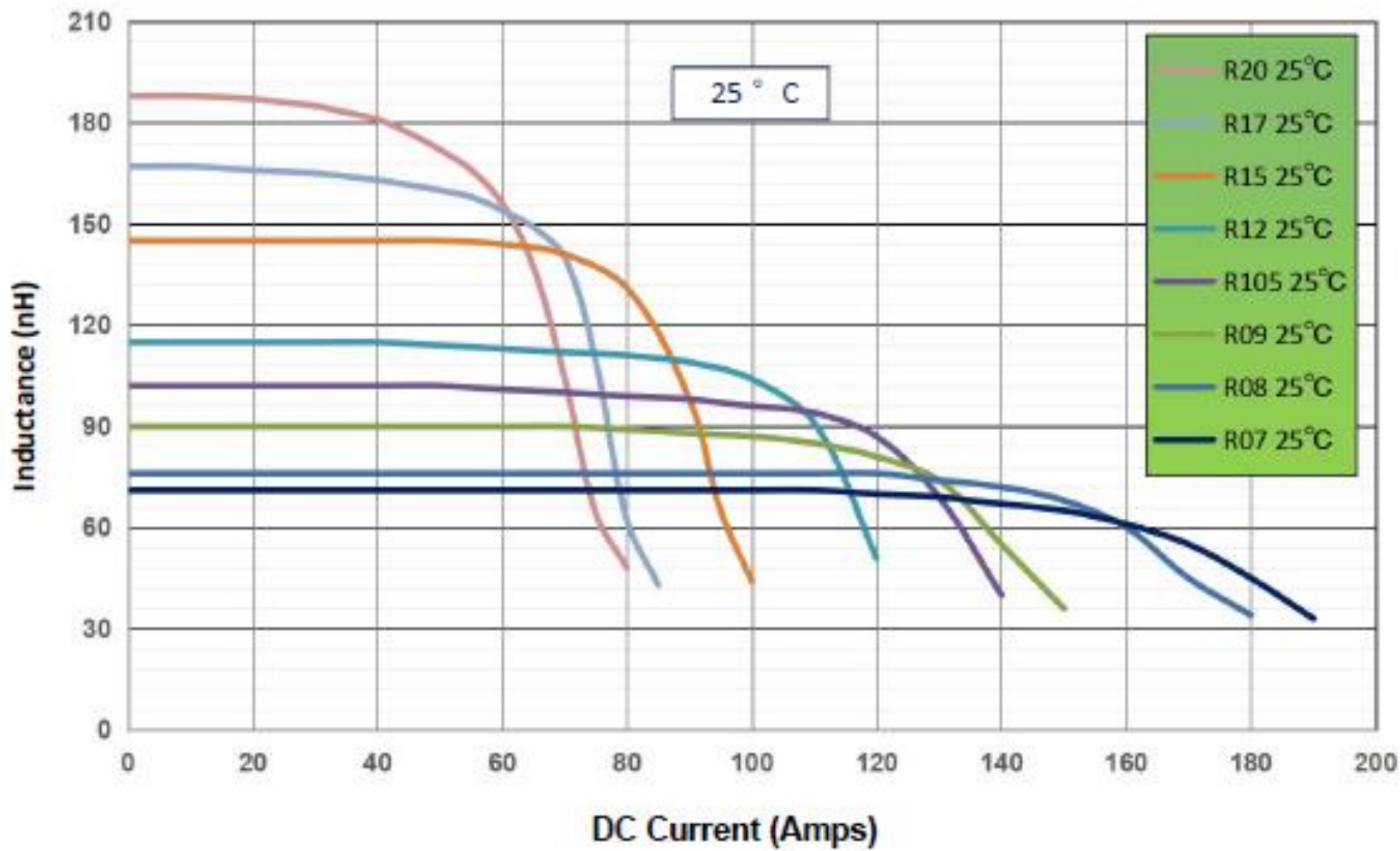
Note 4 : Testing at 100KHz /1.0Vrms

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	Andy 2024/09/30	Ai ji 2024/09/30	Yan 2024/09/30

SPECIFICATION FOR APPROVAL

Inductance (nH) vs DC Bias (Amps) # 100KHz/1.0V

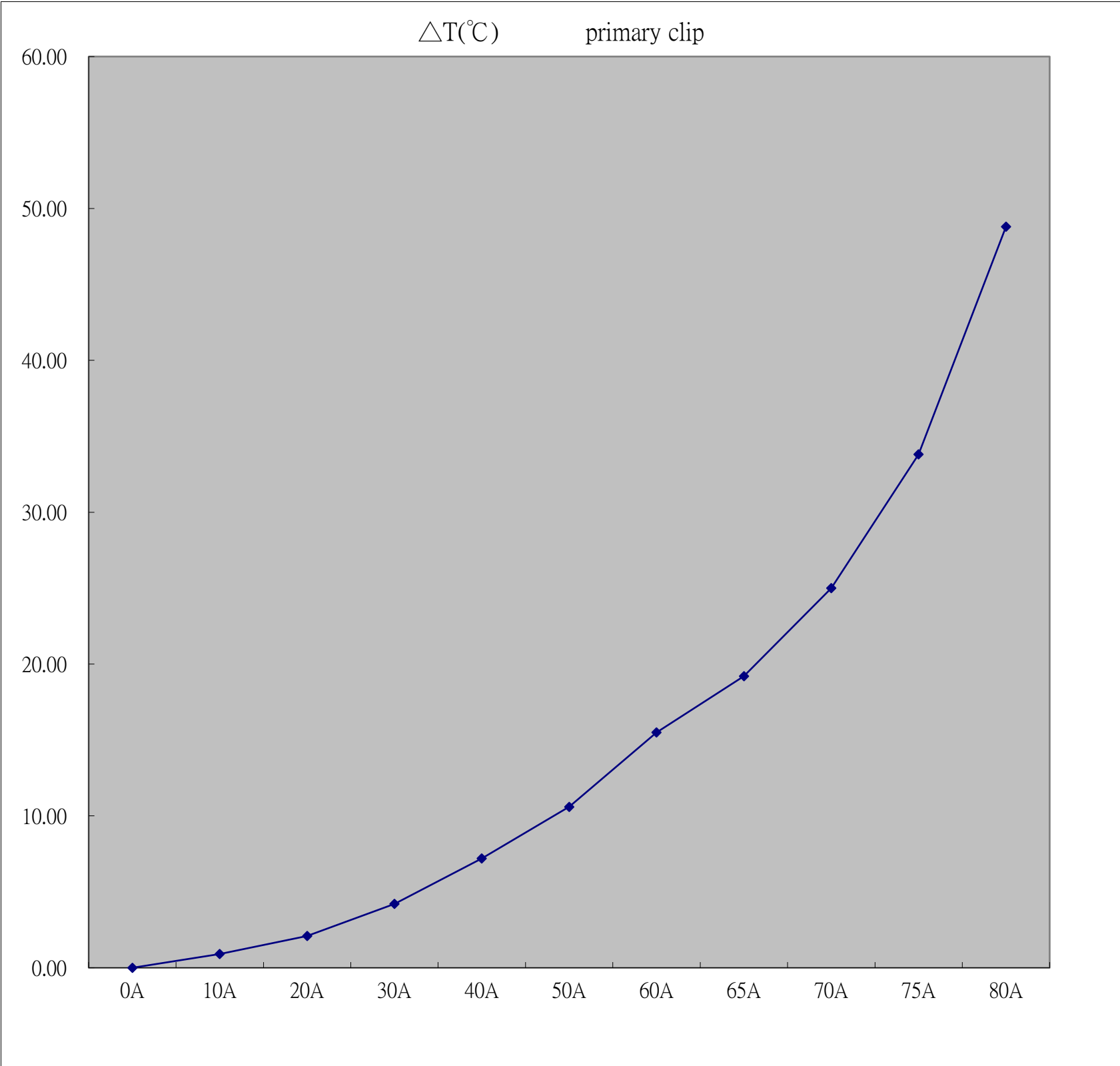
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Andy	Ai ji	Yan
2024/09/30	2024/09/30	2024/09/30

SPECIFICATION FOR APPROVAL			
Temperature rise ΔT (°C) VS DC Bias (Amps)			
CUSTOMER:		PART NO.:	SLVR120611-SERIES
DESCRIPTION:	Trans-inductor Voltage Regulator	SERIES NO:	SLVR-SERIES



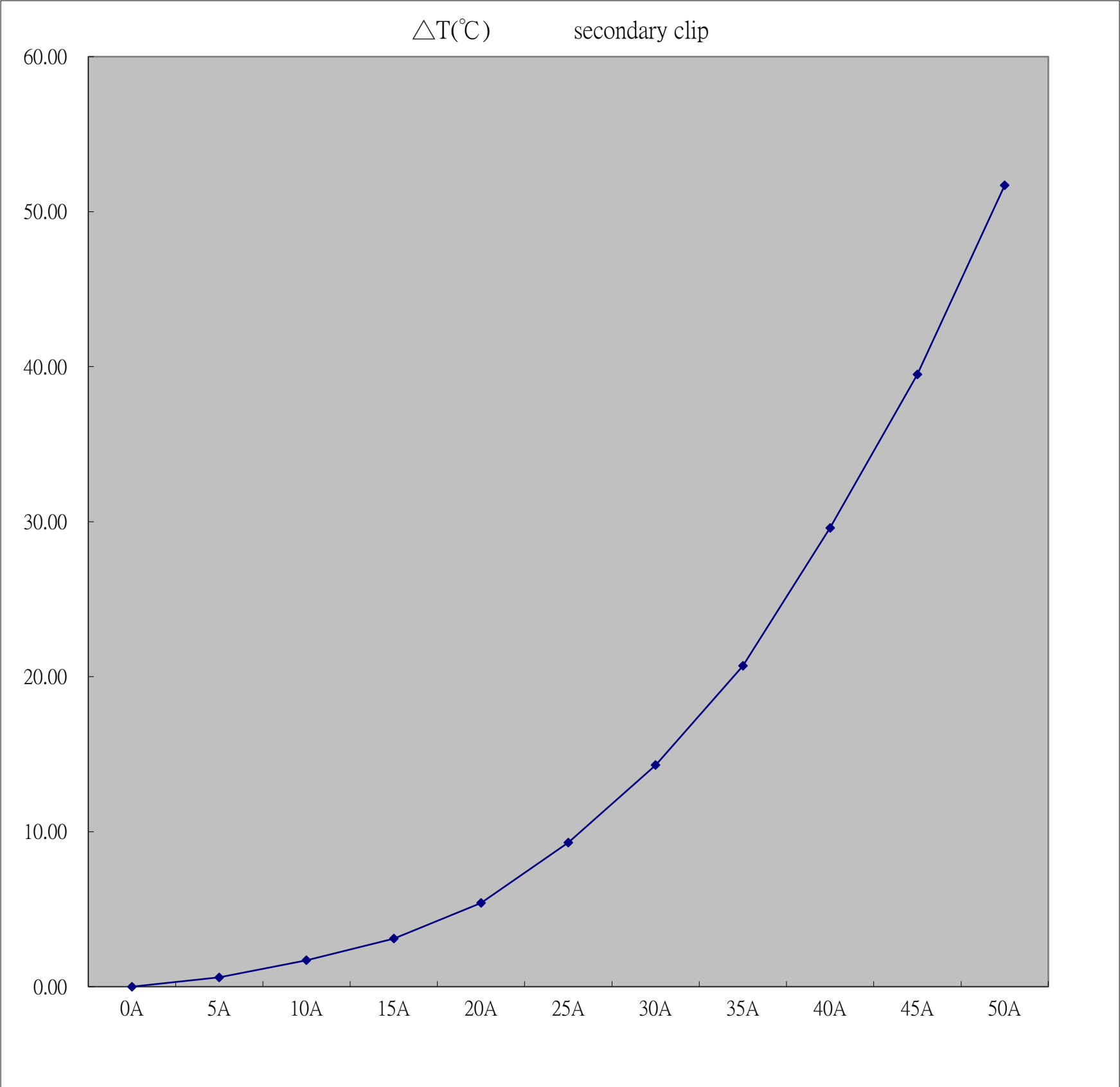
Adc	0A	10A	20A	30A	40A	50A	60A	65A	70A	75A	80A		
$\Delta T(^{\circ}\text{C})$ primary clip	0.00	0.90	2.10	4.20	7.20	10.60	15.50	19.20	25.00	33.80	48.80		

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	Andy 2024/09/30	Ai ji 2024/09/30	Yan 2024/09/30

SPECIFICATION FOR APPROVAL

Temperature rise ΔT (°C) VS DC Bias (Amps)

CUSTOMER:		PART NO.:	SLVR120611-SERIES
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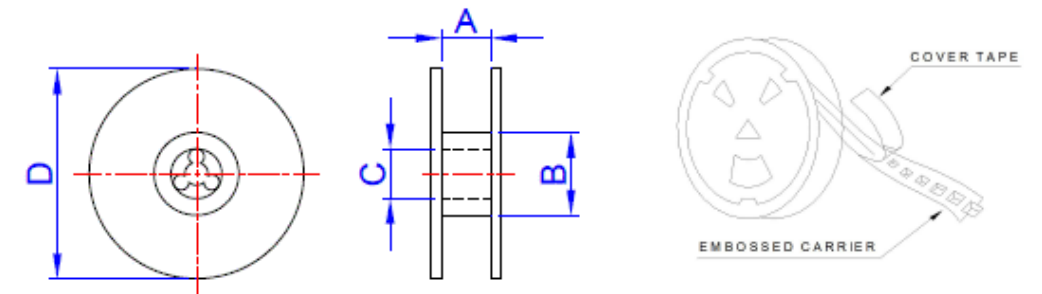
Adc	0A	5A	10A	15A	20A	25A	30A	35A	40A	45A	50A		
ΔT(°C) secondary clip	0.00	0.60	1.70	3.10	5.40	9.30	14.30	20.70	29.60	39.50	51.70		

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	Andy		Ai ji	Yan
	2024/09/30		2024/09/30	2024/09/30

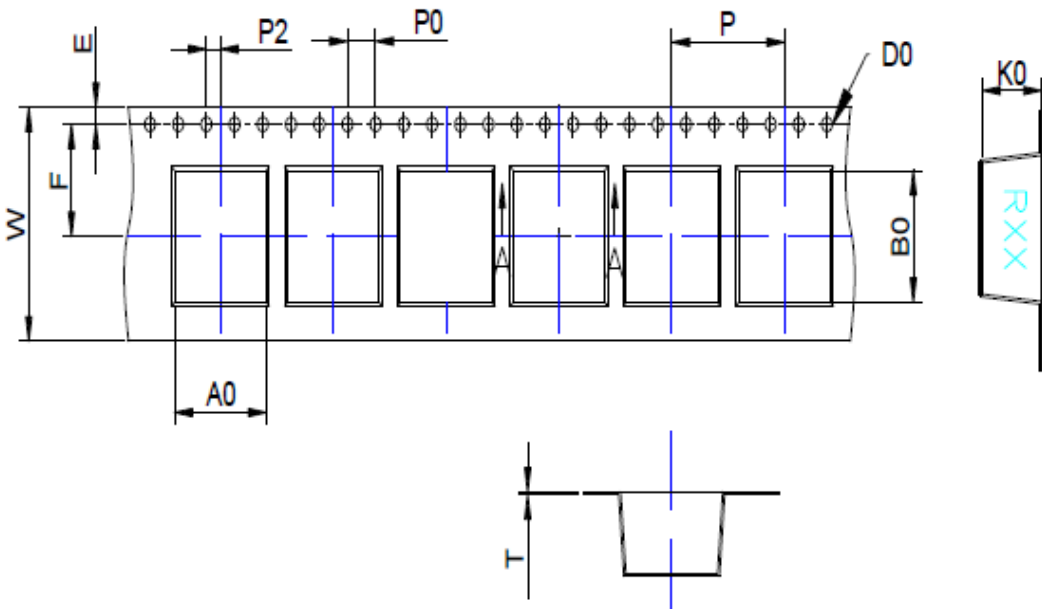
PACKING

CUSTOMER:		PART NO.:	SLVR120611-SERIES
DESCRIPTION:	Trans-inductor Voltage Regulator	SERIES NO:	SLVR-SERIES

1.Configuration.



TYPE	A(mm)	B(mm)	C(mm)	D(mm)
13" x 24mm	24.0±0.5	100 ± 2	13.5 ± 0.5	330REF



TYPE	Ao(mm)	Bo(mm)	Ko(mm)	P(mm)	T(mm)	W(mm)
SLVR120611	6.2±0.1	12.2±0.1	11.3±0.1	16.0±0.1	0.5±0.05	24.0±0.3

SLVR120611	
REEL	300PCs



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RELIABILITY

CUSTOMER:		PART NO.:	SLVR120611-SERIES
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Recommended Soldering Conditions:

Figure 1. Re-flow Soldering

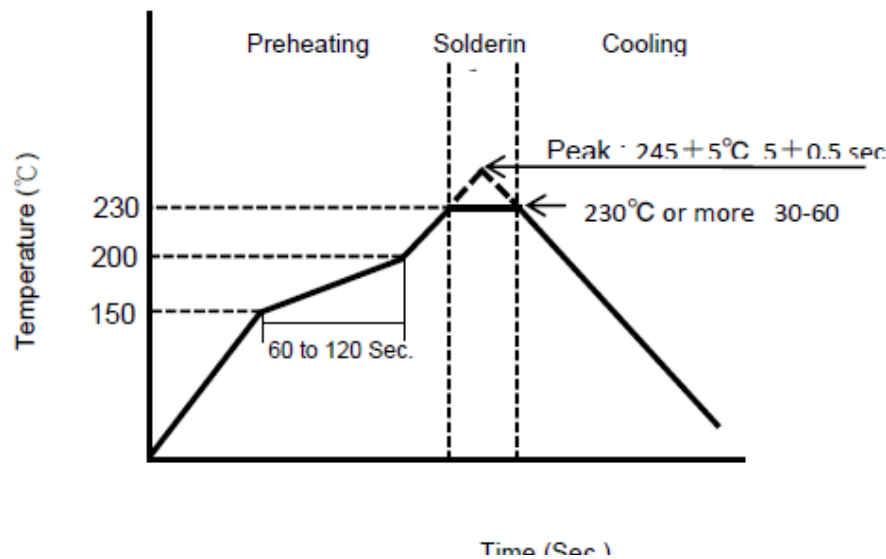


Figure 2. Wave Soldering

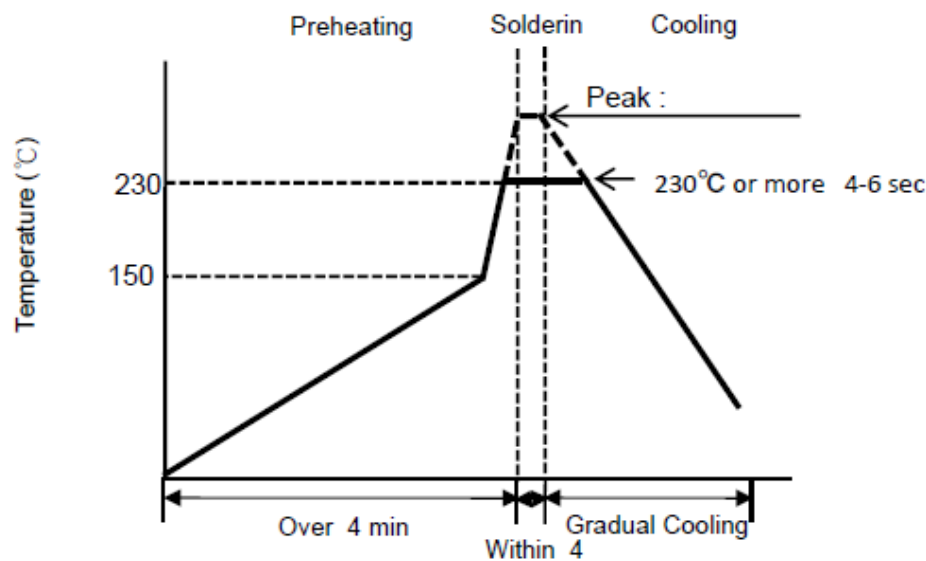
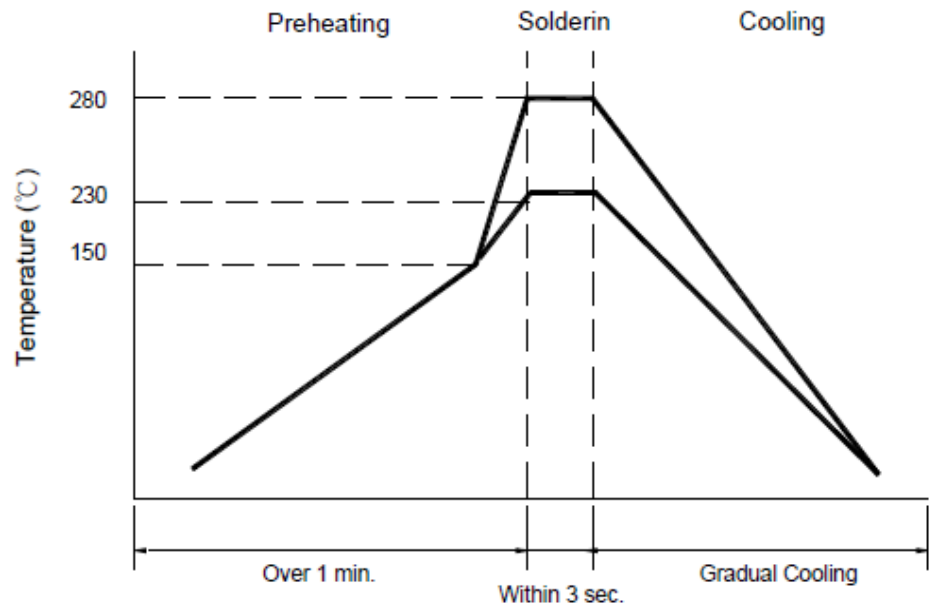


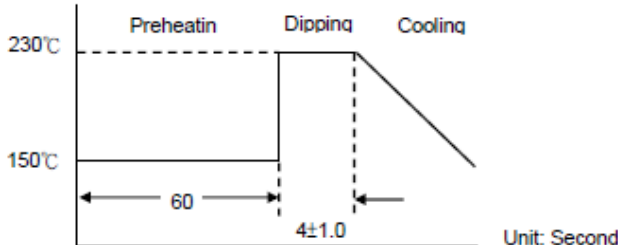
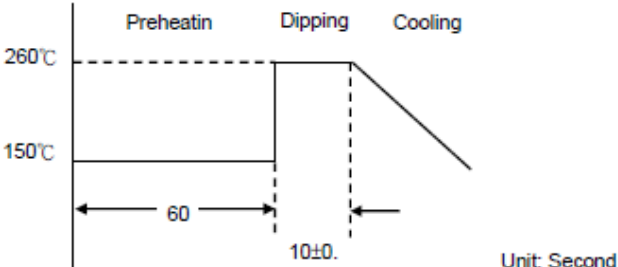
Figure 3. Hand Soldering



RELIABILITY

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Reliability and Testing Conditions / Pin Type Power Inductors:

No.	Item	Specification	Conditions															
1	Solderability	More than 90% of the terminal electrode should be covered with solder.	 Unit: Second															
2	Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	 Unit: Second															
3	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.															
4	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.															
5	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" data-bbox="994 1519 1498 1716"><tr><th>Step</th><th>Temperature (℃)</th><th>Times (min.)</th></tr><tr><td>1</td><td>-40±5℃</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></table>	Step	Temperature (℃)	Times (min.)	1	-40±5℃	30	2	Room Temperature	Within 3	3	125±5℃	30	4	Room Temperature	Within 3
Step	Temperature (℃)	Times (min.)																
1	-40±5℃	30																
2	Room Temperature	Within 3																
3	125±5℃	30																
4	Room Temperature	Within 3																
6	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.															
7	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.															