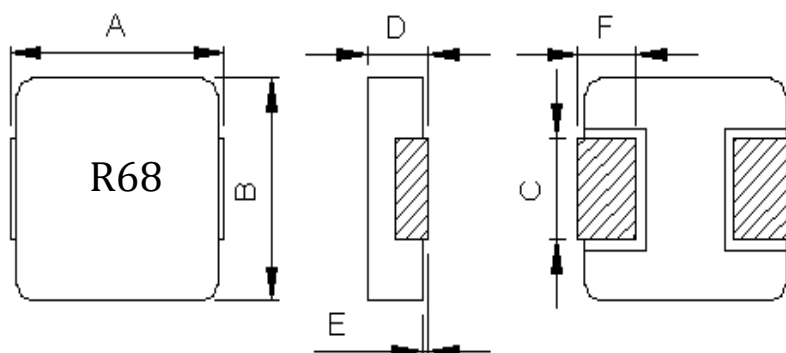


## 1. Features

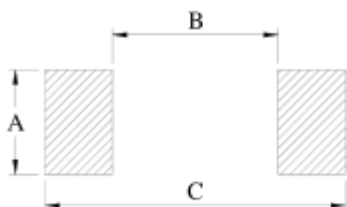
1. Magnetic metal powder inductor.
2. Compact design.
3. High current · low DCR · high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb)-Free and RoHS compliant.

## 2. Dimensions



编号	A	B	C	D	E	F
尺寸 (mm)	14.40Max.	12.80±0.30	3.50±0.50	3.50Max.	0~0.15	2.50±0.50

## 3. Recommend Land Pattern Dimensions



A	4.50
B	3.40
C	14.10

Unit : mm

## 4.Specifications

Part Number	L0 Inductance ( $\mu\text{H}$ ) @ (0A)	DCR ( $\text{m}\Omega$ )		Heat Rating Current DC Amps. Idc ( A )	Saturation Current DC Amps. Isat ( A )
		Typ.	Max		
SLO1235HR68MTT	0.68	1.9	2.5	23	40

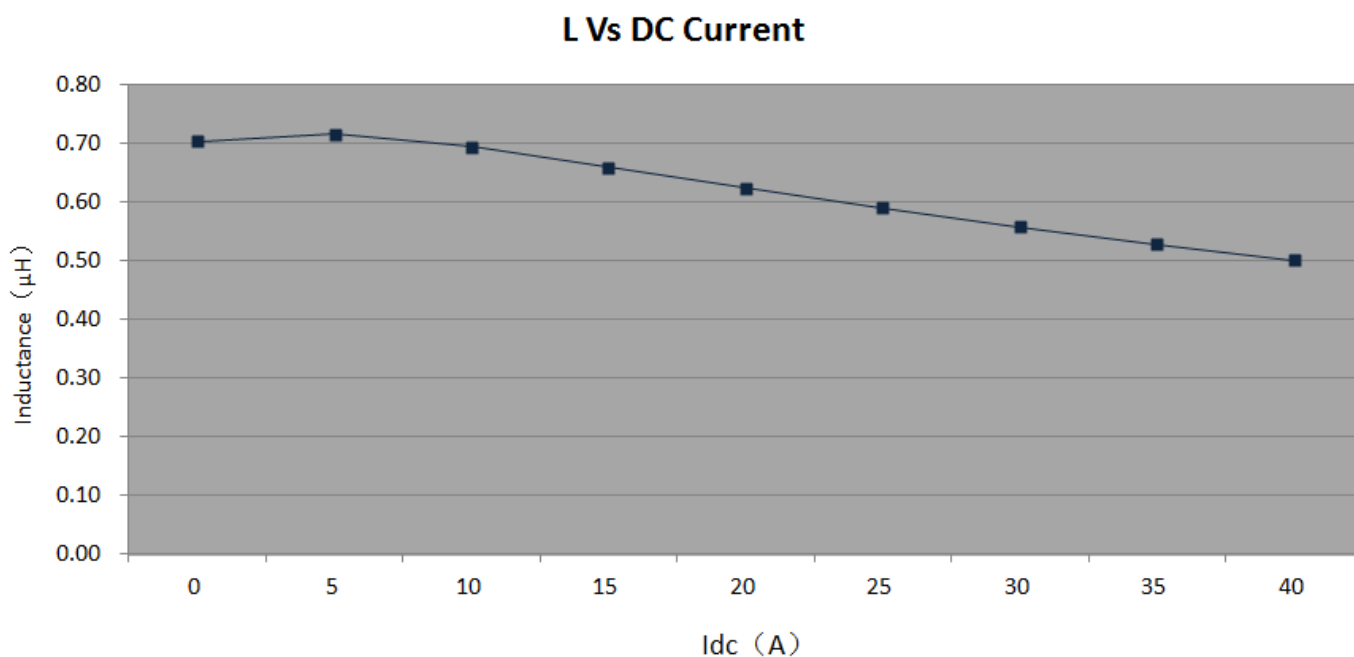
### NOTES:

1. Idc : DC current (A) that will cause an approximate  $\Delta\text{T}$  of  $40^{\circ}\text{C}$ ,
2. Isat : DC current (A) that will cause Lo to drop approximately 35%
3. All test data is referenced to  $25^{\circ}\text{C}$  ambient
4. Operating Temperature Range  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
5. The part temperature (ambient + temp rise) should not exceed  $125^{\circ}\text{C}$  under the worst operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature.  
Part temperature should be verified in the end application.
6. TEST FREQUENCY:100KHz,1.0V
7. TESTING INSTRUMENT L :Agilent4284A,WK4235,CH3302/G LCR METER  
CH1320,CH1320S BIAS CURRENT SOURCE  
Rdc :CH502BC MICRO OHMMETER

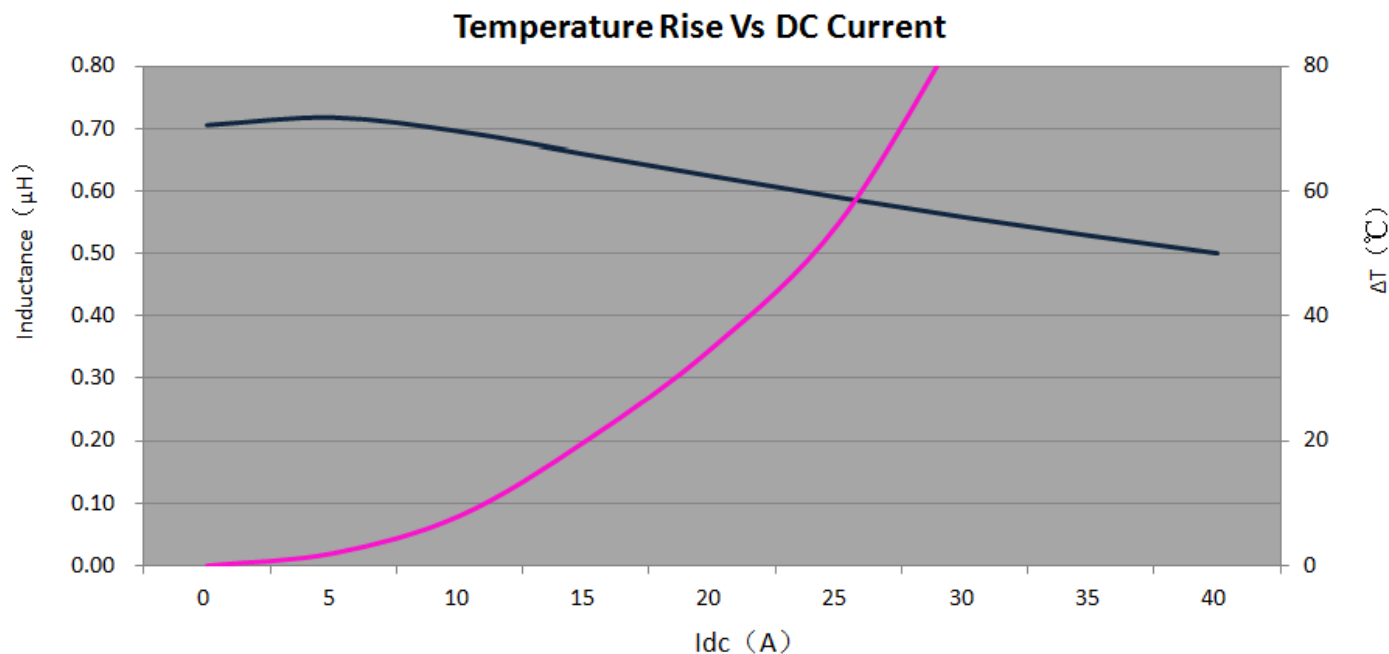
**5. TEST REPORT**

TEST REPORT						
Electrical Characteristic						
Item						
	L0A	DCR	I rms	I sat		
Specification	0.68uH	2.5m Ω	23Amps	40Amps		
Tolerance	±20%	Max	ΔT ≤ 40°C	L ≥ 65%		
1	0.705	2.05	39.7°C	71.06%		
2	0.681	2.05				
3	0.694	2.04				
4	0.684	2.05				
5	0.701	2.04				
6	0.695	2.05				
7	0.694	2.04				
8	0.688	2.04				
9	0.687	2.01				
10	0.692	2.03				
$\bar{X}$	0.6921	2.040				
External Dimensions						
Item						
	A	B	C	D	F	
Specification	14.4	12.8	3.5	3.5	2.5	
Tolerance	Max (mm)	± 0.3(mm)	± 0.5(mm)	Max (mm)	± 0.5(mm)	
1	14.12	12.75	3.31	3.31	2.51	
2	14.05	12.74	3.25	3.37	2.51	
3	14.07	12.75	3.27	3.41	2.54	
4	14.04	12.74	3.32	3.37	2.59	
5	14.05	12.74	3.29	3.38	2.61	
6	14.08	12.74	3.34	3.35	2.59	
7	14.07	12.75	3.28	3.34	2.61	
8	14.11	12.74	3.26	3.36	2.54	
9	14.09	12.74	3.31	3.34	2.61	
10	14.12	12.75	3.29	3.34	2.58	
$\bar{X}$	14.08	12.744	3.292	3.357	2.569	

## 6. INDUCTANCE VS DC CURRENT



## 7. TEMPERATURE RISE VS DC CURRENT



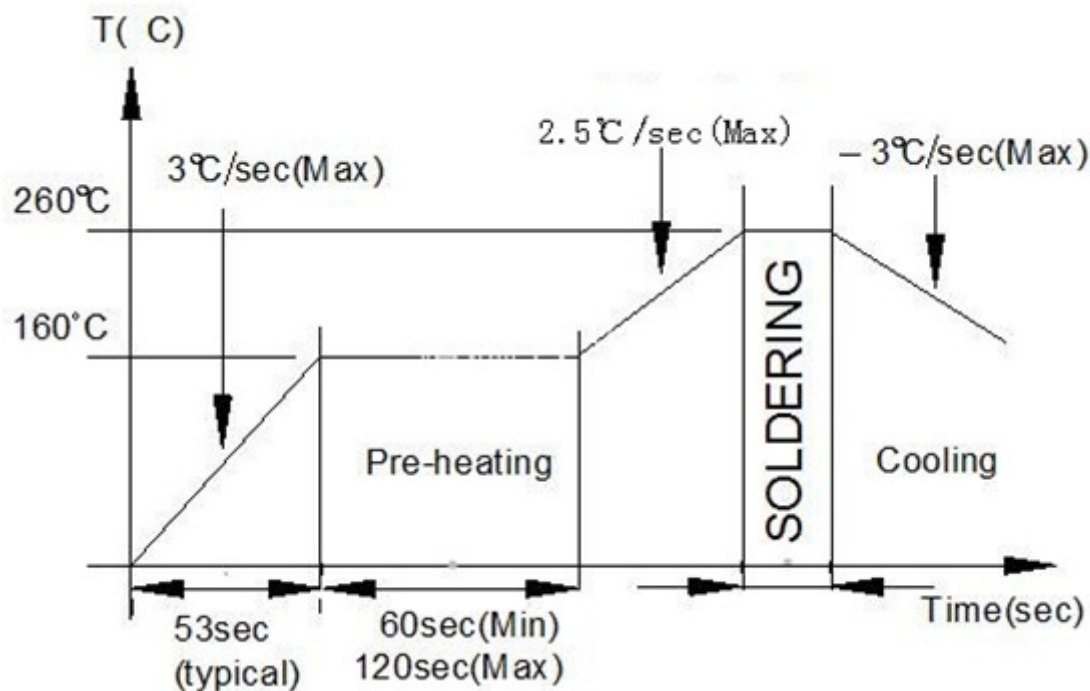
## 8. Reliability and Test Condition

Item	Performance	Test Condition
Operating temperature	-40~+125°C	
Storage temperature	-10~+40°C,50~60%RH (Product withouttaping)	
<b>Electrical Performance Test</b>		
Inductance	Refer to standard electrical characteristics list.	HP4284A,CH11025,CH3302,CH1320,CH1320S
DCR		CH16502,Agilent33420AMicro-Ohm Meter.
Saturation Current (Isat)		Saturation DC Current (Isat) will cause L0 to drop ΔL(%) (keep quickly).
Heat Rated Current (Irms)		Heat Rated Current (Irms) will cause the coil temperature rise ΔT(°C) without core loss.
Heat Rated Current (Irms)	Approximately ΔT≤40°C	
<b>Reliability Test</b>		
High Temperature Exposure Test	Electric specifications should be satisfied	Temperature:125±2°C Duration:1000±12hrs
Low Temperature Life Test		Temperature: -40±2°C
Low Temperature Life Test		
Biased Humidity Test		Humidity:85±3%RH. Temperature:85±2°C Duration:1000±12hrs.
Thermal shock test		Condition for 1 cycle Step1:-40+0 / -2°C 15±1 min. Step2:Room temperature within ≤0.2
Vibration test		Frequency: 10-2000-10Hz for 20 min. Amplitude: Parts mounted within 2" from any secure point. Directions and times: X, Y, Z directions for 20 min.
Reflow test		Pre-heat : 150±5°C Duration : 5 minutes Temperature : 260±5°C · 20~40
Solder test		Terminals should be covered by over 95% solder on visual inspection

**9. SOLDERING CONDITION RECOMMENDED**

9.1 器件焊接方式:

9.1.1 回流焊焊接方式及推荐炉温曲线

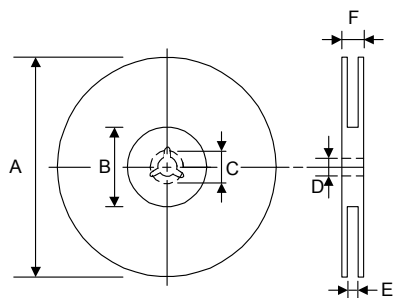


9.1.2 高温耐热性描述（在 265°C 的熔融铅料中，停留时间不少于 10 秒，3 次最少，无质量问题。）

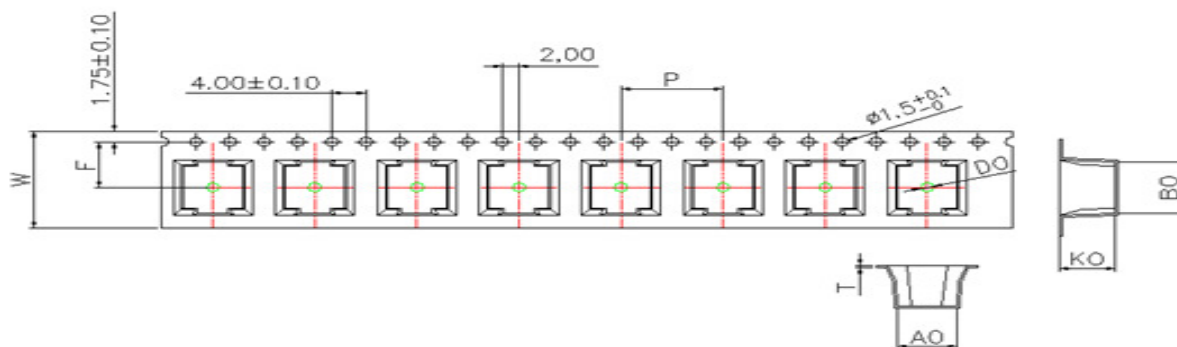
9.1.3 返修温度和时间（温度：400°C；时间：不少于 5 秒。）

9.1.4 焊接次数（元器件能承受的焊接次数不少于 3 次。）

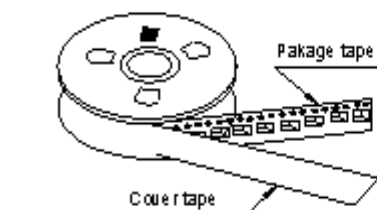
## 10. Packaging Information



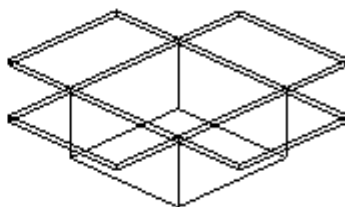
TYPE	A	B	C	D	E	F
24mm	330	100	21.0±0.8	13 <sup>+0.5</sup> / <sub>-0.2</sub>	16±0.3	26.4



Q'TY (PCS)	A0	B0	KO	W	P	T
800	14.5±0.1	12.9±0.1	3.6±0.1	24.0±0.3	16.0±0.1	0.40±0.05



Put the reel into the carton



- ① 一卷包装: 800Pcs;
- ② 小箱装两卷: 一共 1600Pcs;
- ③ 大箱装三小箱: 一共 4800Pcs.

