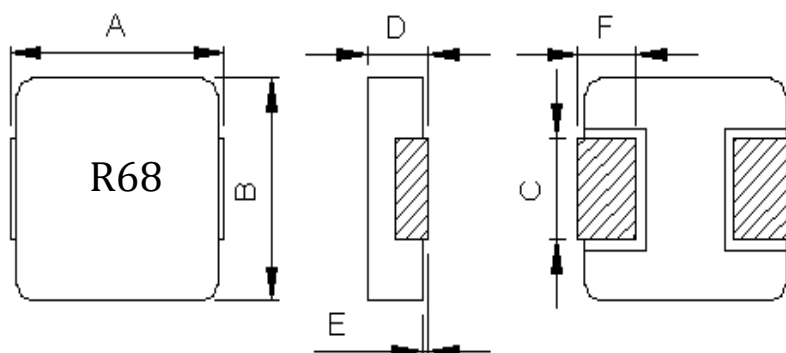


## 1. Features

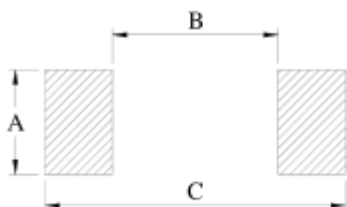
1. Magnetic metal powder inductor.
2. Compact design.
3. High current · low DCR · high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb)-Free and RoHS compliant.

## 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

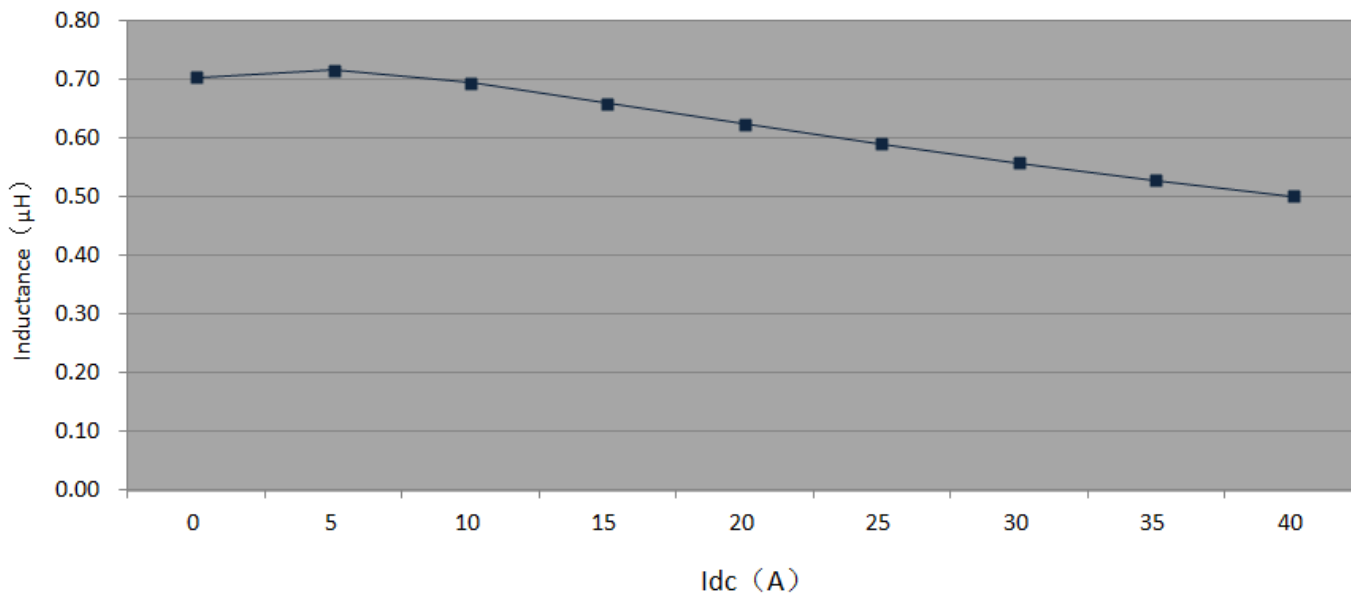
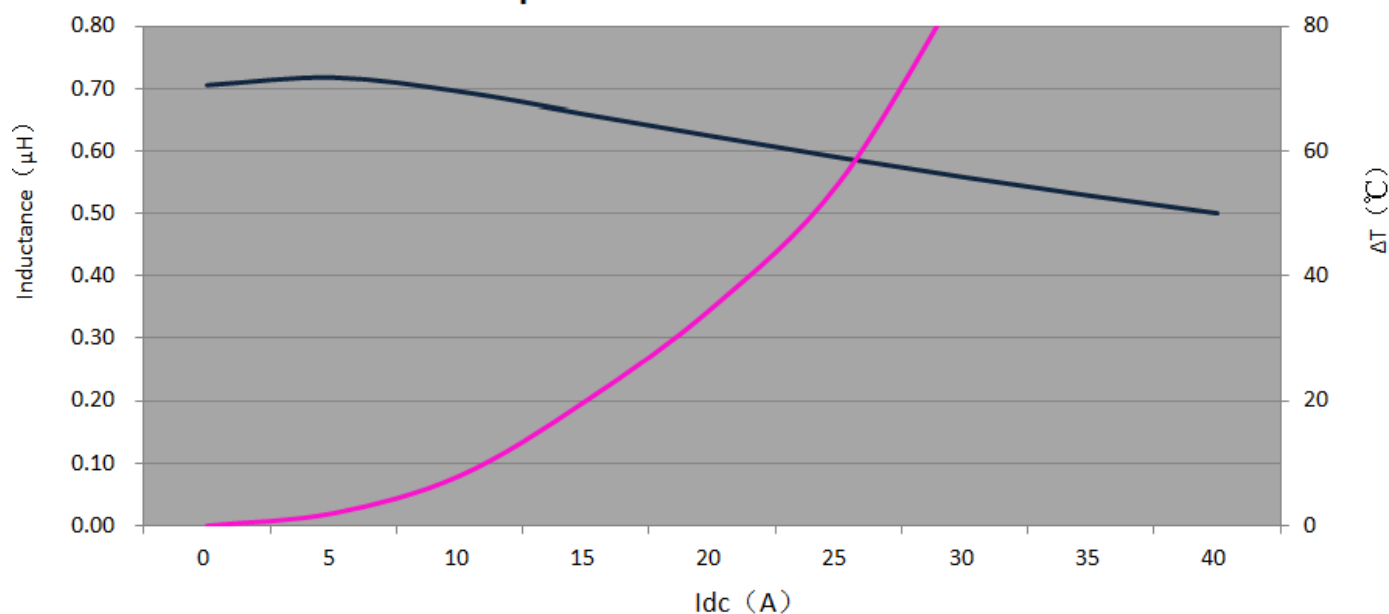
Part Number	L0 Inductance ( $\mu$ H) @ (0A)	DCR ( m $\Omega$ )		Heat Rating Current DC Amps. Idc ( A )	Saturation Current DC Amps. Isat ( A )
		Typ.	Max		
SLO1235HR68MTT	0.68	1.9	2.5	23	40

### NOTES:

1. Idc : DC current (A) that will cause an approximate  $\Delta$ T of 40°C,
2. Isat : DC current (A) that will cause Lo to drop approximately 35%
3. All test data is referenced to 25°C ambient
4. Operating Temperature Range -55°C to +125°C
5. The part temperature (ambient + temp rise) should not exceed 125°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**
**L Vs DC Current**

**7. TEMPERATURE RISE VS DC CURRENT**
**Temperature Rise Vs DC Current**


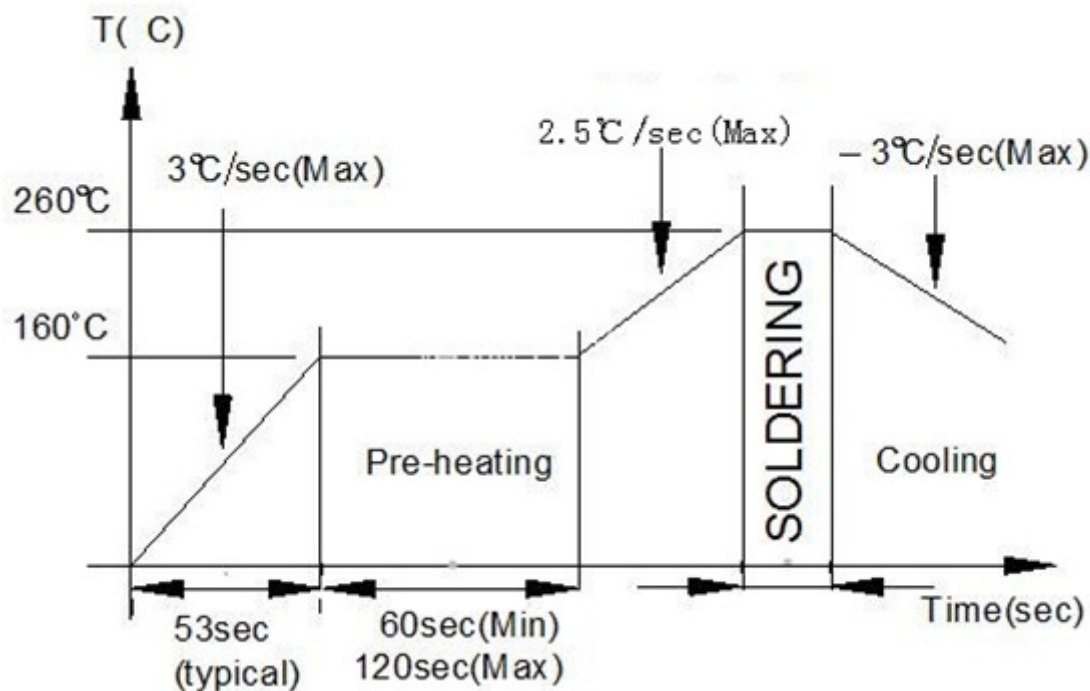
## 8. Reliability and Test Condition

Item	Performance	Test Condition
Operating temperature	-40~+125°C	
Storage temperature	-10~+40°C, 50~60%RH (Product without taping)	
<b>Electrical Performance Test</b>		
Inductance	Refer to standard electrical characteristics list.	HP4284A, CH11025, CH3302, CH1320, CH1320S
DCR		CH16502, Agilent 33420A Micro-Ohm Meter.
Saturation Current (Isat)	ΔL30% typical.	Saturation DC Current (Isat) will cause L0 to drop ΔL(%) (keep quickly).
Heat Rated Current (Irms)	Approximately ΔT≤40°C	Heat Rated Current (Irms) will cause the coil
Heat Rated Current (Irms)		temperature rise ΔT(°C) without core loss.
<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		Humidity: 85±3%RH. Temperature: 85±2°C Duration: 1000±12hrs.
Biased Humidity Test		Condition for 1 cycle Step1: -40+0 / -2°C 15±1 min. Step2: Room temperature within ≤0.2
Thermal shock 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.
Vibration test		Pre-heat : 150±5°C Duration : 5 minutes Temperature : 260±5°C · 20~40
Reflow test		After dip into flux · dip into solder 235±5°C · 4±1seconds Flux · solder for lead free (ANSI /J-STD-002C Method
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

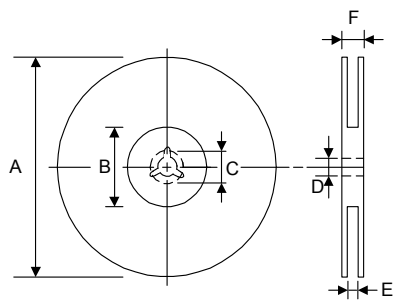


9.1.2 高温耐热性描述（在 265°C 的熔融铅料中，停留时间不少于 10 秒，3 次最少，无质量问题。）

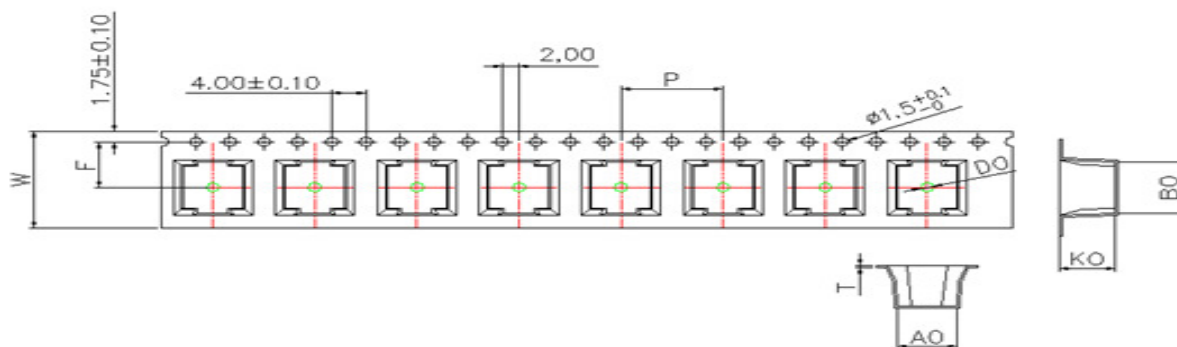
9.1.3 返修温度和时间（温度：400°C；时间：不少于 5 秒。）

9.1.4 焊接次数（元器件能承受的焊接次数不少于 3 次。）

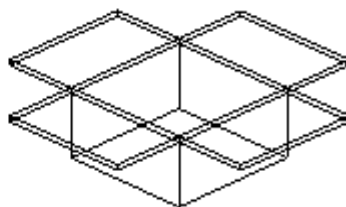
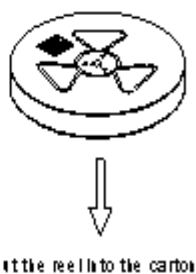
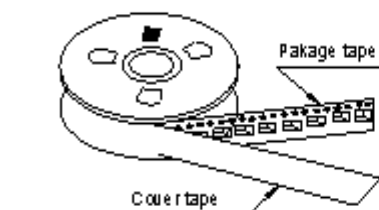
## 10. Packaging Information



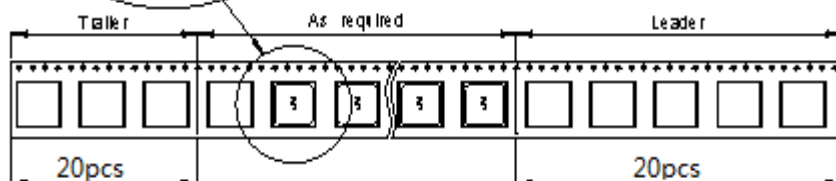
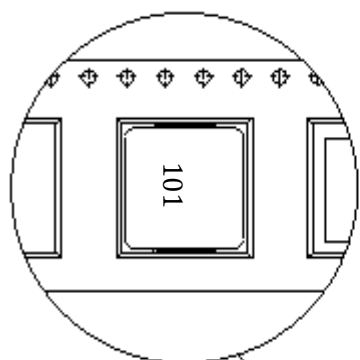
TYPE	A	B	C	D	E	F
24mm	330	100	21.0±0.8	13 <sup>+0.5</sup> / <sub>-0.2</sub>	16±0.3	26.4



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



- 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.



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