

Product Specification

Number: L-KLS18-WBD3D16-470M

Name: SMD Inductor

Customer: _____

Date: 2023-12-21

Customer Signature:



NINGBO KLS ELECTRONIC CO; LTD

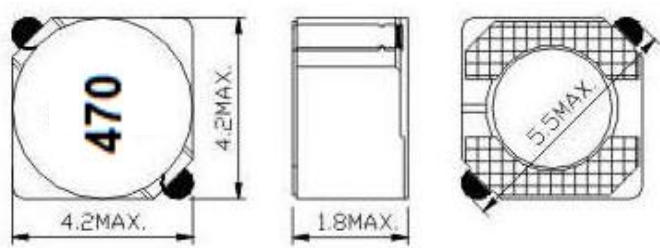
Tel : 0086-574-86828566

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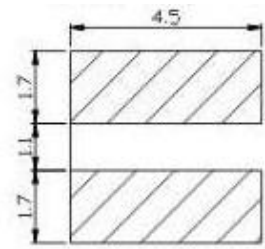
**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

Compi	Check	Review	Approva
Jenny	Jack.C		

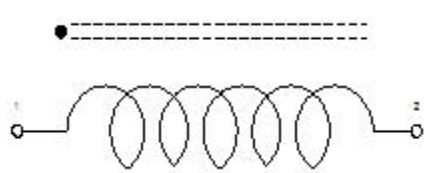
1. Dimension (Unit: mm)



2.Land Patterns



3. Schematics



4.Stamp (Example)



5. Electrical Characteristics

Part Number	Stamp	Inductance	Test Condition	DCR(mΩ) Max.	Isat (A)*Max. (L0A-L0.23A)/L0A ≤30%	Truns
L-KLS18-WBD3D16-470M	470	47μH±20%	100KHz/0.25V	1500	0.23	0.08MM*38TS

*The rated current is the current at which the inductance decreases by 35% from the initial value or the DC current at which the temperature rise is Δt=40℃ ,whichever is smaller(Ta=20℃).

RoHS

PART NO: TEST REPORT

WBD	3D16	470	M
1	2	3	4

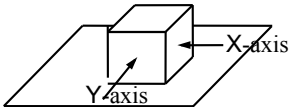
- ① Product symbol (产品代号)
- ② Dimensions (规格尺寸)
- ③ Inductance (电感量)
- ④ Inductance tolerance (感量公差): J=±5%;K=±10%;
N=±30%;M=±20%

ELECTRICAL CHARCTERISTIC				MECHANICAL DIMENSIONS		
SPEC TOL	L	DCR		W	L	H
	uH	m Ω		mm	mm	mm
	47	1500		4.2	4.2	1.8
NO	±20%	Max		Max	Max	Max
1	48.38	1402.3		3.91	3.85	1.75
2	49.46	1393.2		3.88	3.86	1.76
3	50.14	1384.2		3.87	3.85	1.78
4	49.22	1381.3		3.89	3.87	1.78
5	49.50	1374.3		3.88	3.86	1.74
6	49.48	1386.2		3.87	3.84	1.76
7	50.06	1374.2		3.85	3.85	1.78
8	49.53	1381.3		3.87	3.87	1.75
9	50.16	1394.4		3.89	3.88	1.76
10	48.29	1391.6		3.88	3.86	1.76

TEST EQUIPMENTS

TH2817		CH2815	
TH1775	✓	CH1062	✓
VR131	✓		
HP4284			
CH3250			

1. General Characteristics

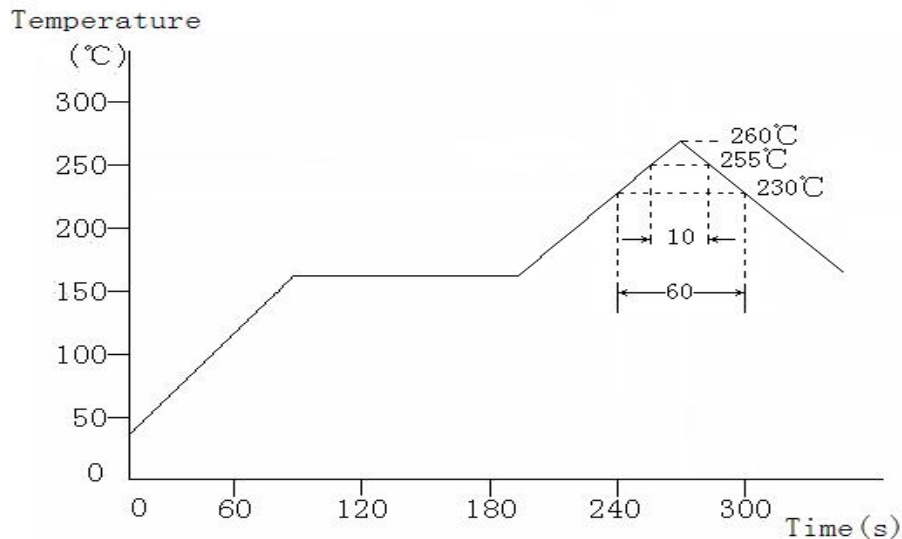
Item	Conditions	Specification
Storage Temperature		$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Operating Temperature		$-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Visual Check		No distinct defects
Terminal Strength	With the force of 5.0N for 10 ± 1 seconds with the coil soldered to PCB. 	No terminals are peeled off
Temperature Feature	$-40 \sim +400^{\circ}\text{C}$	Inductance Coefficient $(0 \sim 2000) \times 10^{-6} / ^{\circ}\text{C}$
Reflow Heat Endurance	Refer to ETCM-001	Refer to ETCM-001
Insulation Resistance	With D.C. 100V applied to the windings and core.	Over 100M Ω
Dielectric Strength	With 100VDC applied for 1 minute between windings and core.	No dielectric breakdown
Humidity Test	Humidity 90~95% and temperature $40 \pm 2^{\circ}\text{C}$ for 96 hours and then drying for 1 hour under normal conditions.	Inductance deviation within $\pm 10\%$ No mechanical defects are found.
Vibration Test	After 2 hour's vibration in each of 3 orientations($10 \sim 55 \sim 10\text{Hz}$) with 1.5mm P-P amplitudes.	Inductance deviation within $\pm 10\%$ No mechanical defects are found.
Shock Test	Dropped once with 981m/s^2 (100G) shock attitude upon a rubber block shock testing machine in 3 different directions	Inductance deviation within $\pm 10\%$. No mechanical defects are found.

2. Remarks

- (1) Packing specification to be according to KB-0013.
- (2) Reflow heat endurance and Recommended reflow conditions to be according to ETCM-001.

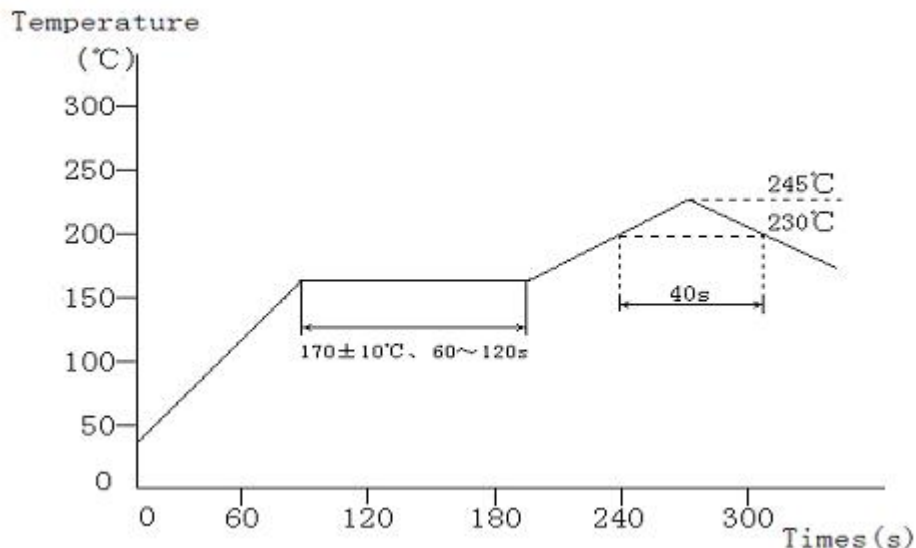
Leadfree Reflow Soldering Heat Endurance and Recommended Reflow Conditions

(1) Reflow Soldering Heat Endurance



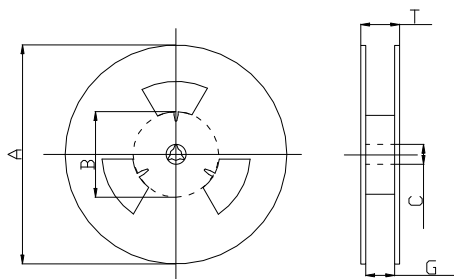
- ☐ No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours.
- ☐ Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.
- ☐ The reflow test profile may vary with the testing instruments

(2) Recommended Reflow Conditions



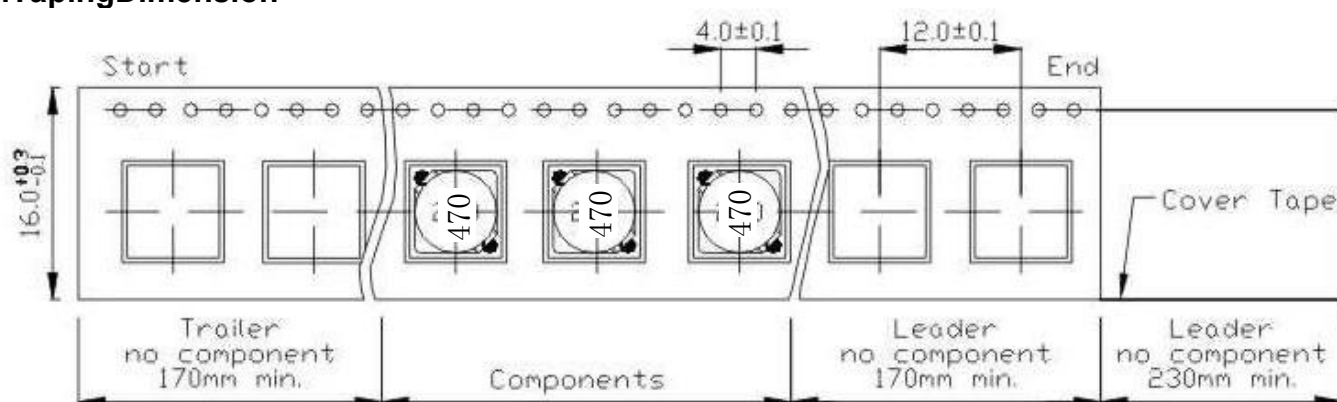
The recommended reflow profile is based on the testing instruments used, Solderability will depend on the testing equipments, reflow conditions, testing method, etc. so it is necessary to make a confirmation of them when the reflow conditions are set up.

1.Reel Dimension(m/m)



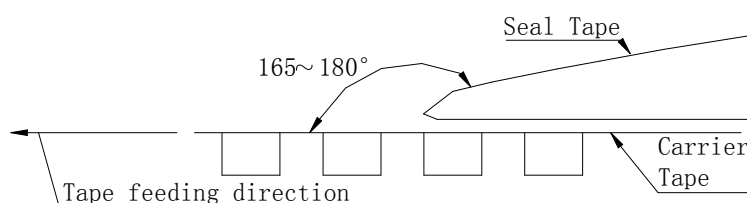
Symbol	A	B	C	G	T
Dim.	330	100	20.4	16.5	20.9

2.TapingDimension



3.Tape Peel off Strength.

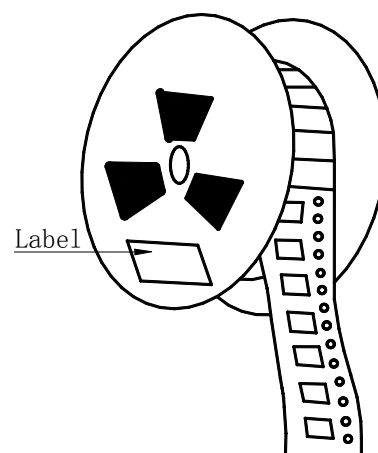
The force to tear off cover tape: 10~130g



4.Marking(Example)

5.Packing Quantities: 3000pcs/Reel.

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ISO9001:2008	
客户品名/ CUSTOMER ITEM	
品名/ITEM	
订单号/PO	
毛重G.W.	KGS
数量/Q'TY	PCS
日期/DATE	
RoHS	



6. Packaging Carton

Figure -1 REEL Box Figure 330mm * 330mm * 70mm (in air) pack1

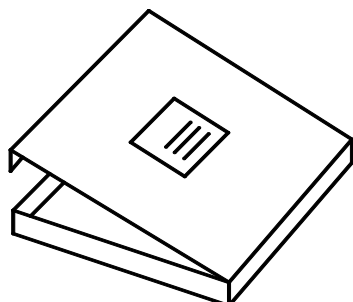
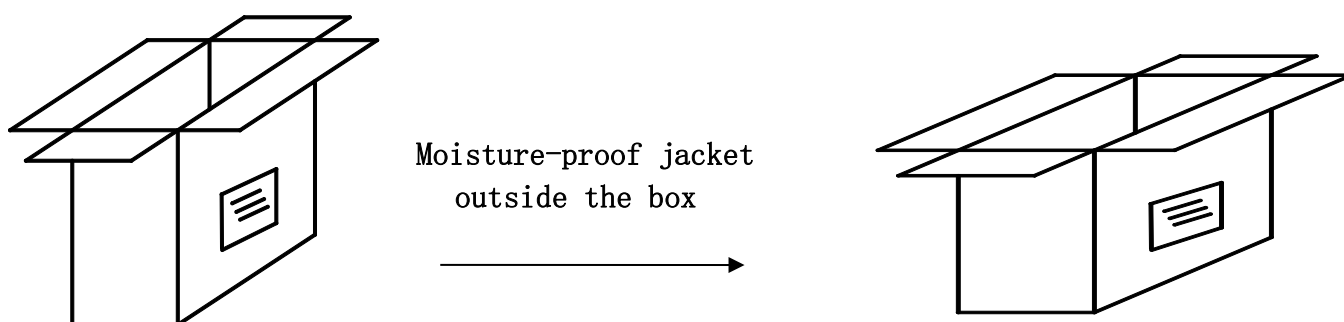


Figure -2 (Chart -2) outside the box diagram



340mm * 340mm * 300mm (in air) (16REEL box)
air)

360mm * 360mm * 320mm (in

Note: If FCL is not enough orders, boxes filled with empty REEL. (If any ending, with the green line in the mark sheet of paper)