

# 承 認 書

## SPECIFICATION FOR APPROVAL

CUSTOMER: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_ WIRE WOUND CHIP INDUCTOR \_\_\_\_\_

DDY PART NO: \_\_\_\_\_ KPS0805LD4R7KST \_\_\_\_\_

CUSTOMERMODELNO: \_\_\_\_\_

DRAWING		
MADE	CHECKED	APPROVED
罗海玲	曾凡强	钟少芳
DATE:	2018年11月17日	

CUSTOMER APPROVE

赣州研创光电科技有限公司

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CUSTOMER NO:		DATE:	2018年11月17日

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### 1.SHAPE & DIMENSION

UNIT:mm							
CODE	L	W	T	E	F	D	
DIMENSION	2.29MAX	1.73MAX	1.52MAX	1.02Typ.	1.78Typ.	0.76Typ.	

### 2. ELECTRICAL CHARACTERISTICS @25°C

ITEM	SPEC. RANGE	TEST CONDITION	TEST INSTRUMENTS
L (μH)	4.70±10%	7.9MHz	HP4286A
Q(品质系数)	14 MIN	7.9MHz	
DCR (Ω)	0.56 MAX		502BC
I <sub>rms</sub> (mA)	520 MAX		VR116+VR7210
SRF (MHz)	51 MIN		E5071C ENA

### 3. PART NUMBERING SYSTEM

KPS	□□□□	□□	□R□	□	□	□
1	2	3	4	5	6	7
1	PRODUCT SYMBOL (产品代号)					
2	DIMENSIONS (规格尺寸)					
3	MATERIAL (芯片类型)					
4	INDUCTANCE (电感量)					
5	TOLERANCE (公差) : J±5%; K±10%; M±20%					
6	TERMINAL (端电极材料) : S-锡端头;					
7	PACKAGING (包装方式) : T-编带盘装; B-散装					

### 4.GENERAL SPECIFICATION

a. Storage temp.: -40°C ~ +85°C ,R.H.: 30% ~ 70%,Operating temp.: -40°C~ +85°C.

b. Moisture sensitivity level (MSL) 2 (1 year floor life at <30°C/85% relative humidity).

c.Failures in time(FIT)/Mean Time Between Failures(MTBF) 38 per billion hours/26,315,789 hours,calculated per Telcordia SR-332.

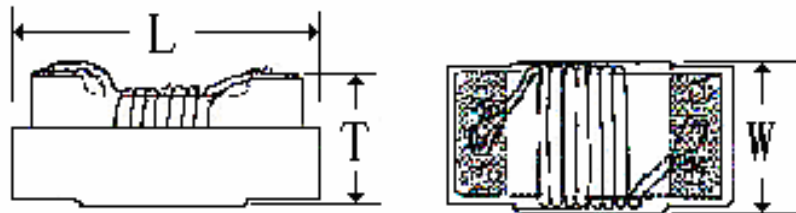
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### 5. TEST DATA FOR SAMPLES

TEST ITEM	L	Q(品质系数)	DCR	L	W	T	
	( $\mu$ H)	(min)	( $\Omega$ )	(mm)	(mm)	(mm)	
CON.	7.9MHz	7.9MHz	At 25°C	2.29MAX	1.73MAX	1.52MAX	
SPEC.	4.70 $\pm$ 10%	14 MIN	0.56 MAX				
1	4.73	18.0	0.47	2.14	1.50	1.22	
2	4.69	16.0	0.49	2.15	1.52	1.20	
3	4.67	16.0	0.48	2.14	1.51	1.21	
4	4.72	17.0	0.47	2.16	1.51	1.20	
5	4.69	18.0	0.47	2.15	1.50	1.22	
6	4.71	16.0	0.49	2.14	1.51	1.21	
7	4.69	17.0	0.48	2.15	1.52	1.20	
8	4.69	16.0	0.47	2.16	1.50	1.22	
9	4.71	18.0	0.49	2.16	1.52	1.21	
10	4.70	17.0	0.48	2.14	1.51	1.20	
X	4.70	16.90	0.48	2.15	1.51	1.21	
R	0.06	2.00	0.02	0.02	0.02	0.02	

图示:

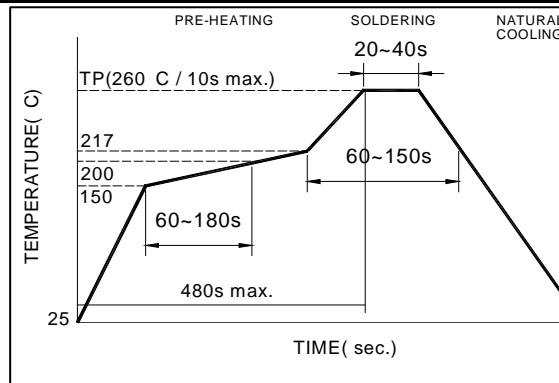


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## 6. SOLDERING CONDITIONS

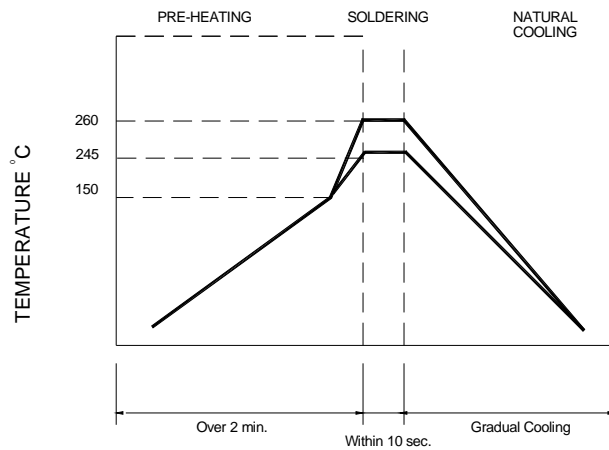
**Figure 1.  
Re-flow  
Soldering (Lead  
Free)**



Note:

- Preheat circuit and products to 150°C
- 280°C tip temperature (max)

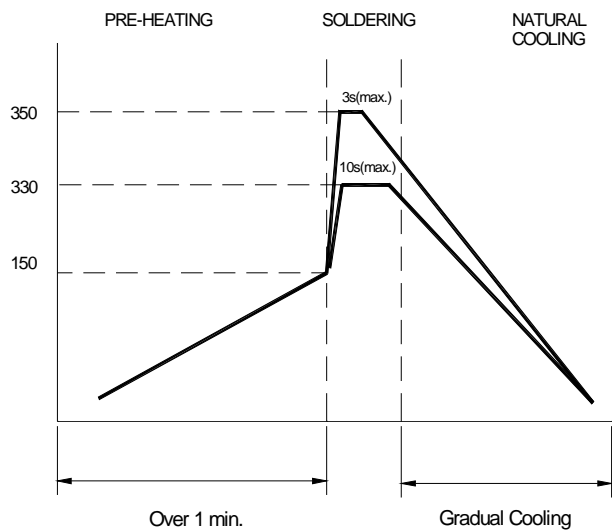
**Figure 2.  
Wave Soldering**



Note :

- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (max)

**Figure 3.  
Hand Soldering**



Note:

- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.

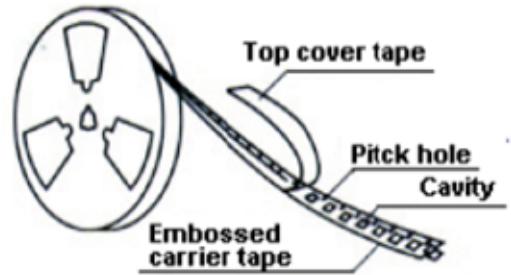
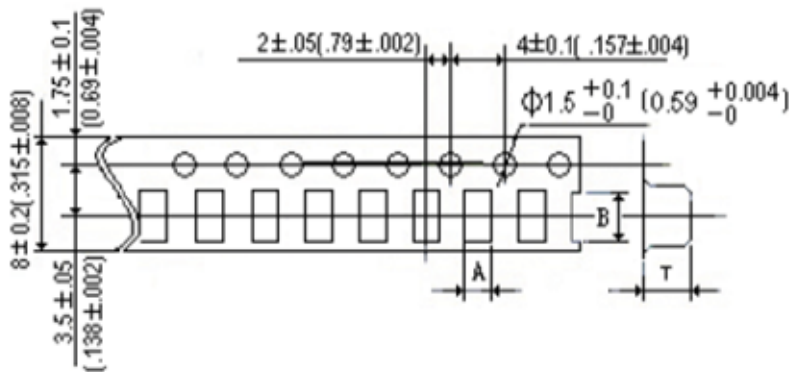
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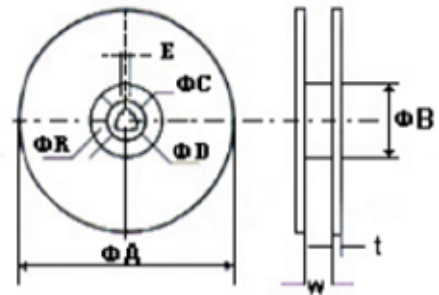
**7. PACKAGING(unit: mm)**

**Tape**

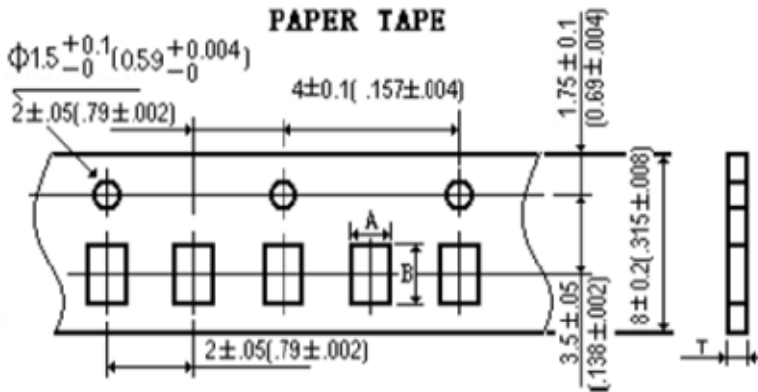
**POLYSTYRENE TAPE**



**Reel Dimensions**



**PAPER TAPE**



		A	B	T
纸带	0402	0.74	1.23	0.60
	0603	1.15	1.83	0.95
胶带	0805	1.85	2.40	1.45
	1008	2.73	2.90	2.34
	1210	2.96	3.60	2.40

unit	ΦA	ΦB	ΦC	ΦD	E	W	t	R
mm	178	60	13	21	2	10	2	1
	330	75	13	23	2	12	2	1

包装数量(PACKAGING QUANTITY)

规格	0402	0603	0805	1008	1210	
数量(pcs)	10000	4000	2000	2000	2000	

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### 8. 1 RELIABILITY TEST

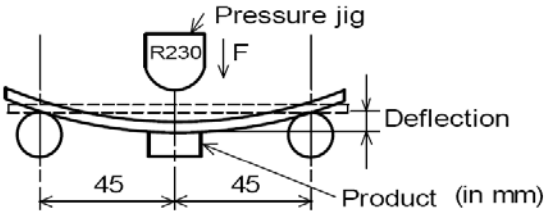
TEST ITEM	SPECIFICATION	TEST CONDITION
Rating current	According to product specifications	Current sources:33010D
Inductance	According to product specifications	Test Frequency:0.252~250MHz Test Equipment:HP4291A、HP4286A、HP4287A、HP4284A Test Fixture:16193Aor16334A
Q	According to product specifications	Test Frequency:0.252~1500MHz Test Equipment:HP4291A、HP4286A、HP4287A、Test Fixture:16193Aor16334A
RDC	According to product specifications	Test Equipment:HP4263B
SRF	According to product specifications	Test Equipment:HP4291A Test Fixture:16193A
Solderability	The metalized area must have more then 90%of solder coverage	Soldering Temp:230±5℃ Dipping time:5±1S
Resistance to soldering heat	No evidence of mechanical damage The mealized arer must have more then 75%of solder coverage Inductance change,less than±5% Q change less than±10%	Soldering Temp:260±5℃ Dipping time:10±1S
Thermal Shock	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	A cycle contain:Step1:-40℃, 30Min Step 2:85℃, 30Min Cycle Times:10

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## 8.2 RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
High Temperature Storage	No evidence of mechanical damage, Inductance change less than $\pm 5\%$ , Q change less than $\pm 10\%$	Test Temperature: $125\pm 2^{\circ}\text{C}$ (Ceramic core) $85\pm 2^{\circ}\text{C}$ (Ferrite core) Test Time: $96\pm 2$ Hours
Low Temperature Storage	No evidence of mechanical damage, Inductance change less than $\pm 5\%$ , Q change less than $\pm 10\%$	Test Temperature: $-40\pm 2^{\circ}\text{C}$ Test Time: $96\pm 2$ Hours
Moisture Resistance	No evidence of mechanical damage, Inductance change less than $\pm 5\%$ , Q change less than $\pm 10\%$	Test Temperature: $50\pm 2^{\circ}\text{C}$ Test Time:100Hours relative humidity:90~95%
Vibration	No evidence of mechanical damage, Inductance change less than $\pm 5\%$ , Q change less than $\pm 10\%$	Amplitude:1.5mm X、Y、Z each direction for 1Hour and 45min Frequency range:10~55~10Hz(min)
Component Adhesion	No evidence of mechanical damage No evidence of peel off or broken Keep continuity of Winding	Force:2Kg Test Time: $5\pm 1$ sec
Resistance to bend	No evidence of mechanical damage	Camber:20mm Test Board:Glass-Epoxy board Thickness:8mm 
Life	No evidence of mechanical damage, Inductance change less than $\pm 5\%$ , Q change less than $\pm 10\%$	Test Temperature: $85\pm 2^{\circ}\text{C}$ Test Time:1000Hours with rating current

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