深圳市佑驰电子有限公司

Specification for Approval

产品名称：合金磁胶电感

规格型号：HNRS252010Z系列

产品编号：

日　　期：2026/5/5

1、本承认书的内容更改需经过双方确认，任一方单独的修改均视为无效。

2、本承认书在送达客户后，请给予承认并即签回，如无签回下订单的，我司有权以此承认书标准生产，并表示购买方默认许可。

核准	审核	制作
	Aaron	Ada

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MODIFY RECORD 变更履历

Date	Rev. No.	Change Content	Prepared	Approved
2026/5/5	A0	New issue	Ada	Aaron

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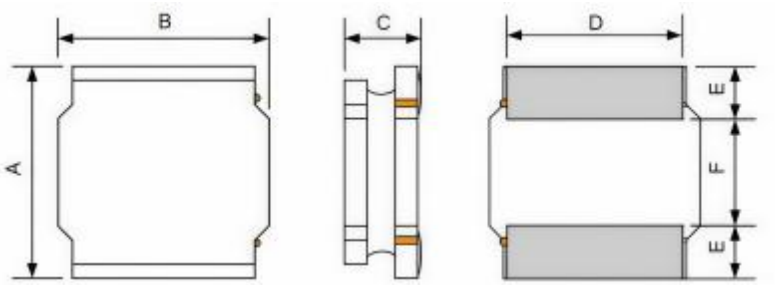
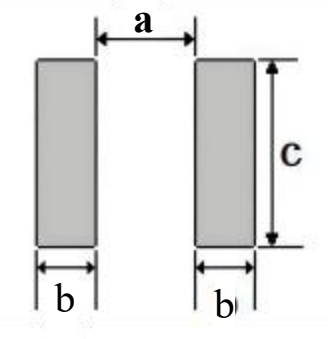
1. SHAPE & DIMENSION (UNIT:mm)

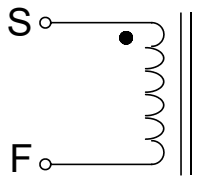




Recommended patterns

A	B	C	D	E	F	a	b	c
2.5±0.3	2.0±0.3	1.0 Max.	2.0±0.2	0.8 Typ.	0.9 Typ.	0.7 Typ.	1.0 Typ.	2.2 Typ.

2. SCHEMATIC



3. PART NUMBERING SYSTEM

HNRS	252010	Z	-	1R0	MC
①	②	③		④	⑤

① PRODUCT SYMBOL（产品代号：HNRS合金）
② DIMENSIONS （规格尺寸）
③ Edge type(边型):Z=12边；B=8边；C=4边
④ Inductance Value：（电感标称值）
⑤ TOLERANCE：（公差）：K±10%； MC±20%; YC±30%

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4. ELECTRICAL CHARACTERISTICS

No.	Part Number	Inductance	DC Resistance		Isat(A)		Irms(A)		Marking
		1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max..	Typ.	
	Units	（uH）	Ω	Ω	A	A	A	A	
1	HNRS252010Z-R24YC	0.24±30%	0.033	0.025	6.10	7.10	3.70	4.50	N/A
2	HNRS252010Z-R33YC	0.33±30%	0.039	0.033	4.80	5.50	3.50	4.05	N/A
3	HNRS252010Z-R47YC	0.47±30%	0.045	0.040	4.40	5.20	3.20	3.60	N/A
4	HNRS252010Z-R68YC	0.68±30%	0.059	0.049	3.20	3.60	2.75	3.20	N/A
5	HNRS252010Z-1R0YC	1.0±30%	0.085	0.080	3.10	4.00	2.20	2.60	N/A
6	HNRS252010Z-1R5YC	1.5±30%	0.106	0.090	2.60	3.00	2.00	2.30	N/A
7	HNRS252010Z-2R2MC	2.2±20%	0.155	0.129	1.90	2.20	1.50	1.80	N/A
8	HNRS252010Z-3R3MC	3.3±20%	0.235	0.210	1.60	1.80	1.20	1.40	N/A
9	HNRS252010Z-4R7MC	4.7±20%	0.340	0.290	1.30	1.50	1.00	1.10	N/A
10	HNRS252010Z-6R8MC	6.8±20%	0.480	0.380	1.00	1.15	0.95	1.00	N/A
11	HNRS252010Z-100MC	10±20%	0.740	0.700	0.90	1.00	0.65	0.75	N/A

Test remarks

(1). All test data is referenced to 25 ℃ ambient.

(2). Isat: DC current at which inductance drops approximate 30% from its value without current.

(3).Irms: DC current that causes the temperature rise (△T ≦40℃) from 25℃ ambient.

(4).Absolute maximum voltage: DC 25V;

5. GENERAL SPECIFICATION

(1). Operating temp.: -40℃ ~ +125℃ (Including self-generated heat).

(2). Storage temp.: -40℃ ~ +85℃ R.H.:70% Max.

(3). Recommended products should be used within 12 months from the date of delivery

(4). The part temperature (ambient + temp rise) should not exceed 125 °C under worst case 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.

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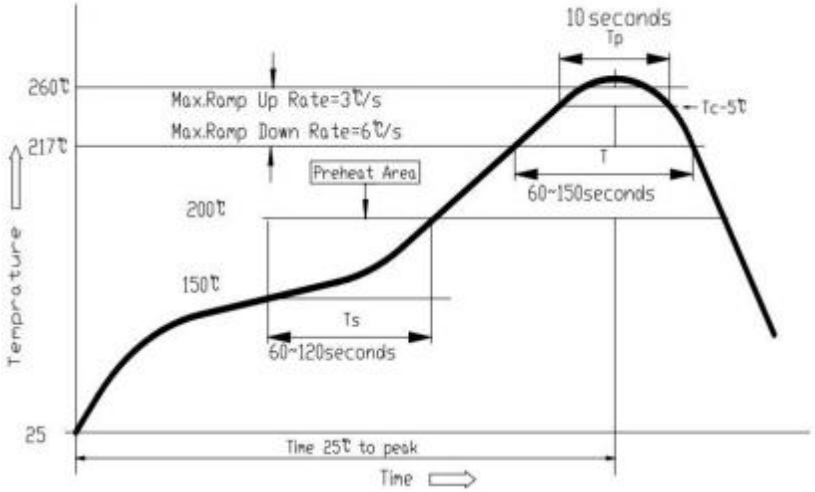
6. SOLDERING CONDITIONS

Figure 1. Re-flow Soldering (Lead Free)



Note:

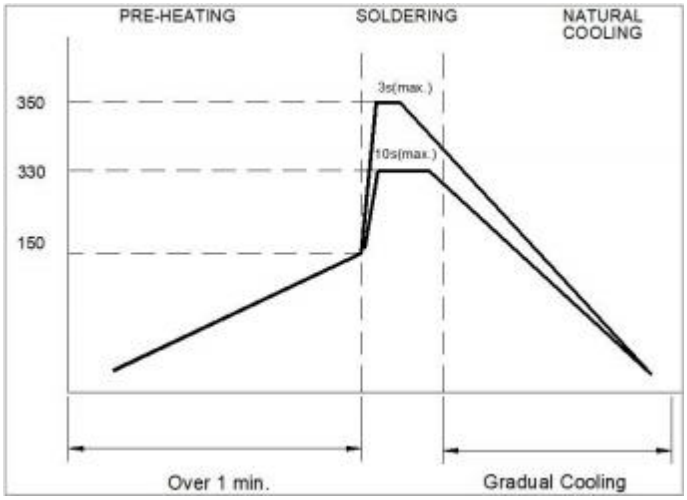
Preheat circuit and products to 150°C

260°C tip temperature (Max)

Reflow times: no more than 2 times

Solder paste thickness: the best 0.08mm is ,but max is 0.1mm

Figure 2. 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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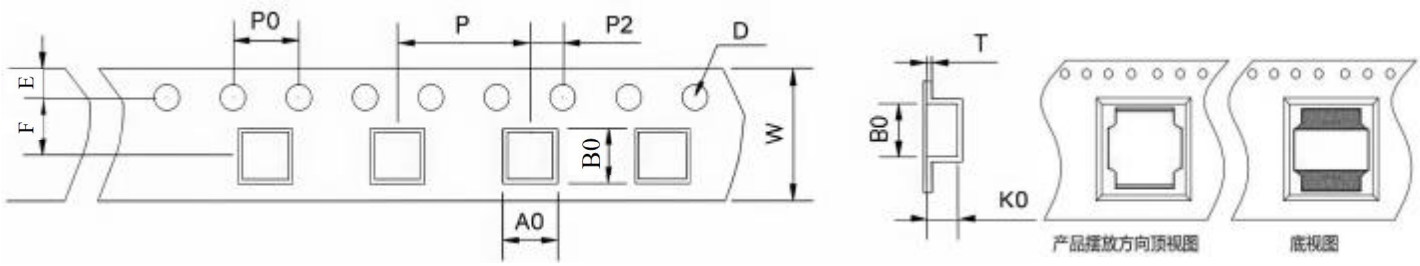
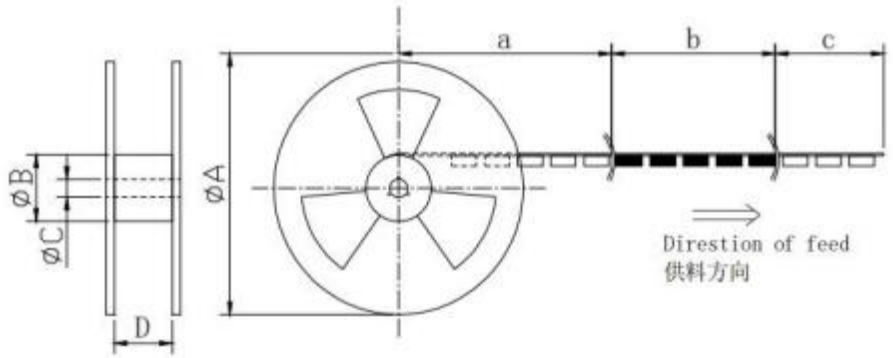
7. PACKAGE SPECIFICATION

(1). Tape Dimensions(Unit:mm)



W	A0	B0	K0	D	E	F	P	P0	P2	T
8.0 ±0.3	2.35 ±0.2	2.65 ±0.1	1.4 ±0.1	1.5 +0.1/-0.1	1.75 ±0.1	3.5 ±0.2	4.0 ±0.3	4.0 ±0.2	2.0 ±0.1	0.25 ±0.1

(2). Reel Dimensions (Unit:mm)



Item	Dimension
A	178
B	58
C	13
D	8.5
a	Blank portions
b	Chip cavity
c	Leader

(3). PackagingQuantity

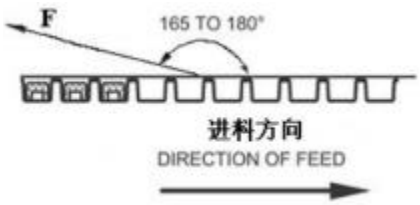
Reel(pcs)	Box (pcs)	Carton (pcs)
2000	8000	48,000

(4). Packaging -Cover Tape

F force：10～130g

Peeling speed：300mm/min±10%

Peeling angle：165°~180°



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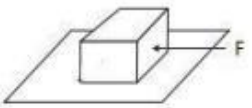
8. RELIABILITY

No.	Item	Requirements	Test Methods and Remarks
1	High temperature Storage test	1. No significant defects in appearance. 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%	Temperature: 125℃±5℃ (N: Follow the product specification for the setting.) Time：96±2 hours Place the samples for one hour at room temperature and test them within two hours
2	Low temperature Storage test	1. No significant defects in appearance. 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%	Temperature: -40℃±5℃ (M: Follow the product specification for the setting) Time：96±2 hours Place the samples for one hour at room temperature and test them within two hours.
3	Humidity test	1. No significant defects in appearance. 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%	Temperature: 40±2℃ , Humidity: 93±3%RH Time：96±2 hours Place the samples for one hour at room temperature and test them within two hours
4	Solderability test	Terminals must have 95% minimum solder coverage	1.Dip pads in flux then dip in solder pot at 245±5°C for 5 second. 2.Solder: lead free 3.Flux: rosin flux
5	Heat endurance of flow soldering	1. No significant defects in appearance. 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%	1.Refer to the above reflow curve and go through the reflow for twice. 2.The peak temperature：260+0/-5℃
6	Vibration test	1.No significant defects in appearance. 2.No short and no open.	Apply frequency 10~55~ 10Hz and amplitude 1.5mm, 1 min/cycle in X Y and Z direction for 2 hours each. (total 6 hours)
7	Terminal strength push tes	1. Applied force:10N Duration: 10sec 2.Solder paste thickness:0. 12mm 3.Meet the above requirements without any loose termina	Solder the test samples to the PCB through245 ℃ reflow, apply a standard force on the side of the test samples for 10 seconds. 

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