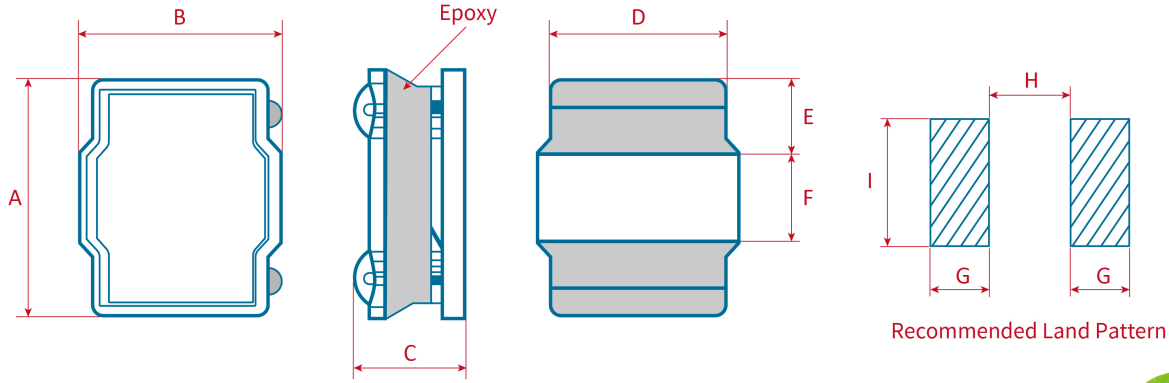


# SPECIFICATION FOR APPROVED 樣品承認書

2024  
NEW

## 機構圖 Shape and Dimensions(mm) :



Item	A	B	C	D	E	F	G	H	I
HNT2512MT-M	2.5 ± 0.2	2.2 ± 0.2	1.25 Max.	1.65 Ref.	0.8 Ref.	0.9 Ref.	0.8 Ref.	0.85 Ref.	2.0 Ref.

印字Marking : N/A

## HNT2512MT-M

Part No.	L (μH)	DCR (mΩ)		Isat (A)	Irms (A)
	@1MHz, 1V	Max.	Typ.	Max.	Max.
HNT2512NTR24-M	0.24±30%	30	25	6.50	4.50
HNT2512NTR33-M	0.33±30%	36	30	5.30	3.20
HNT2512NTR47-M	0.47±30%	40	35	4.90	3.10
HNT2512NTR68-M	0.68±30%	50	41	3.85	3.00
HNT2512MT1R0-M	1.0±20%	60	52	3.80	2.90
HNT2512MT1R5-M	1.5±20%	86	73	2.90	2.10
HNT2512MT2R2-M	2.2±20%	115	106	2.60	2.00
HNT2512MT3R3-M	3.3±20%	190	175	1.90	1.70
HNT2512MT4R7-M	4.7±20%	235	204	1.80	1.50
HNT2512MT6R8-M	6.8±20%	380	340	1.15	1.10
HNT2512MT100-M	10±20%	480	450	1.10	1.00
HNT2512MT220-M	22±20%	1080	910	0.70	0.65



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**Ordering information**

HNT-2512-M-T-R24-M

(1) (2) (3) (4) (5) (6)

(1) Type: Power Inductor

(2) Size: 2512 is size

(3) Tolerance: M=±20% N=±30%

(4) Packaging style: Taping Reel

(5) Inductance: R24 for 0.24μH, 1R0 for 1.0μH, 2R2 for 2.2μH, 100 for 10μH...

(6) Item number: M

**Characteristics**

- All test data is referenced to 25 °C ambient.

- Isat: DC current at which the inductance drops approximate 35% from its value without current.

- Irms: DC current that will cause an approximate ΔT of 40 °C (reference ambient temperature is 25 °C).

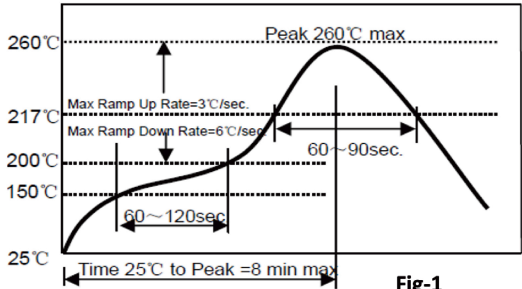
- absolute maximum voltage: DC 25V.

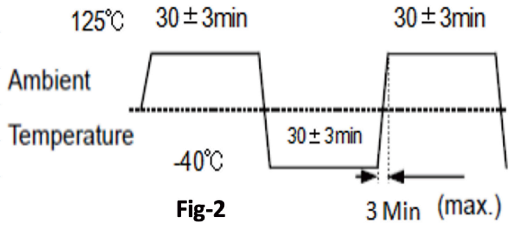
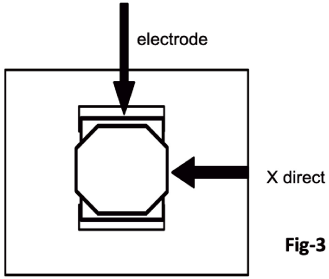
- Operating temperature: -40~+125°C

**Test equipment**

- HP-4286A

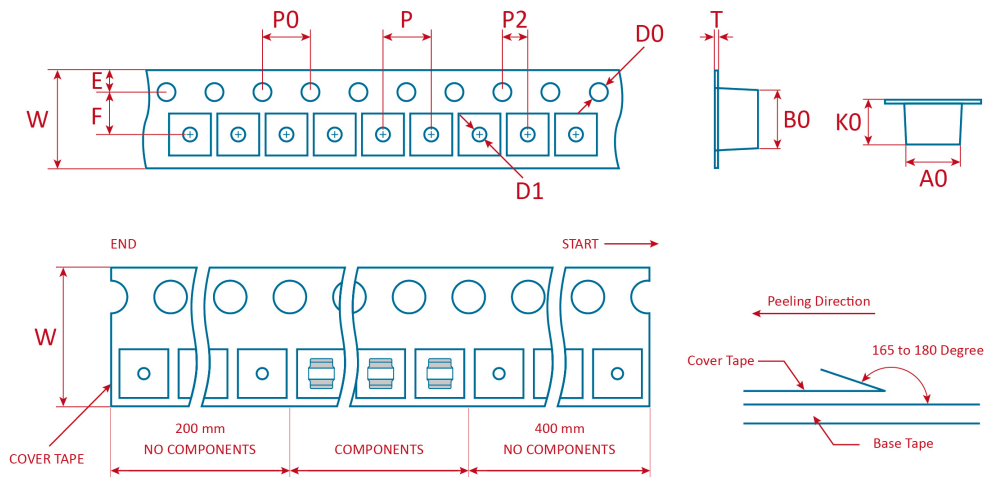
**RELIABILITY TEST**

Items	Requirements	Test Methods and Remarks
Resistance to Soldering Heat	1.No visible mechanical damage 2.Inductance change: Within±5%	1.Solder on PCB to Reflow test Peak Temp. $260\pm 5^{\circ}\text{C}$ 5 ~ 10 secs ,Cycles:2 times..Re-flowing Profile: Please refer to Fig-1; 2.Test board thickness: 1.5mm; 3.Test board material: glass epoxy resin; 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.product showed no damage under microscope.(for microscope of Shun Yu SZM-45 20X) .  <p style="text-align: right;"><b>Fig-1</b></p>
High Temperature	1.No visible mechanical damage 2.Inductance change: Within±10%	1.Temperature: $125\pm 2^{\circ}\text{C}$ ; 2.Duration: 1000 hours; 3.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Steady damp-heat	1.No visible mechanical damage 2.Inductance change: Within±10%	1.Temperature: $85^{\circ}\text{C}$ ; 2.Humidity: 85% RH; 3.Duration:1000 hours; 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Mechanical Vibration	1. No visible mechanical damage 2. Inductance change: Within±10%	1. Frequency: 10HZ ~ 55HZ ~ 10HZ/Min Cycles; 2. Amplitude: 1.5 mm; 3. Directions: X,Y,Z; 4. Time: 2 hours in each directions (total of 6 hours).

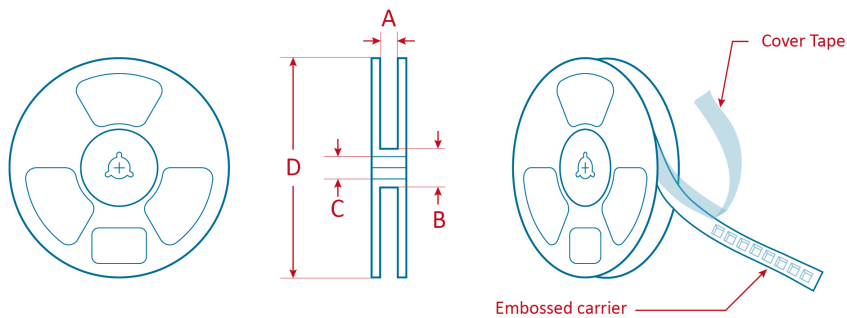
Items	Requirements	Test Methods and Remarks
Thermal Shock	1. No visible mechanical damage 2. Inductance change: Within $\pm 10\%$	1. Temperature and time: $-40^{\circ}\text{C}$ for $30\pm 3$ min $\rightarrow$ $125^{\circ}\text{C}$ for $30\pm 3$ min, please refer to Fig-2; 2. Transforming interval: Max. 3 Min; 3. Tested cycle: 1000 cycles; 4. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.   <p style="text-align: center;"><b>Fig-2</b></p>
Terminal strength	1. The peak thrust is greater than 10N	1. The electrode of the inductor is soldered to the PCB, to Fig-3 Then apply a force in the X direction of the arrow; 2. 10N force; 3. Keep time: $10(\pm 1)$ s; The first three tests were OK, and the force was applied until the peak value of the product peeling. The test speed was set in the range of 3 ~ 8mm/min.   <p style="text-align: right;"><b>Fig-3</b></p>

## TAPE AND REEL SPECIFICATIONS

Dimensions in mm



Type	W	P	A0	B0	K0	T	E	F	P2	D0	P0
HNT2512MT-M	8 ±0.1	4 ±0.1	2.4 ±0.1	2.85 +0.1/-0.05	1.4 ±0.05	0.2 ±0.05	1.75 ±0.1	3.5 ±0.05	2 ±0.05	1.5 +0.1	4 ±0.1



Type	A	B	C	D
HNT2512MT-M	10 ± 1.5	58.1 ± 1.0	13 ± 1.5	179 ± 1.0

Packing Quantity

2000 Pcs / Reel