

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSM SERIES

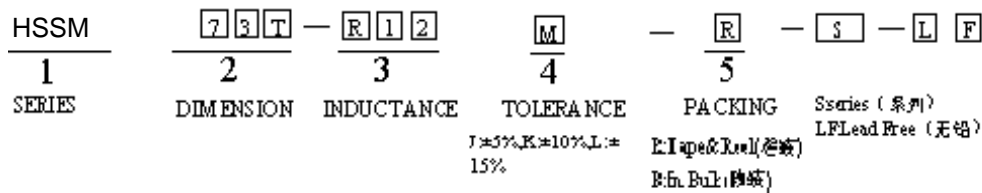
1. FEATURES:

- (1) Ultra low cost, Shielded construction.
- (2) High current rating up to DC 65A, High frequency range up to 5MHz.
- (3) Very low DC resistance, Low noise.

2. APPLICATIONS:

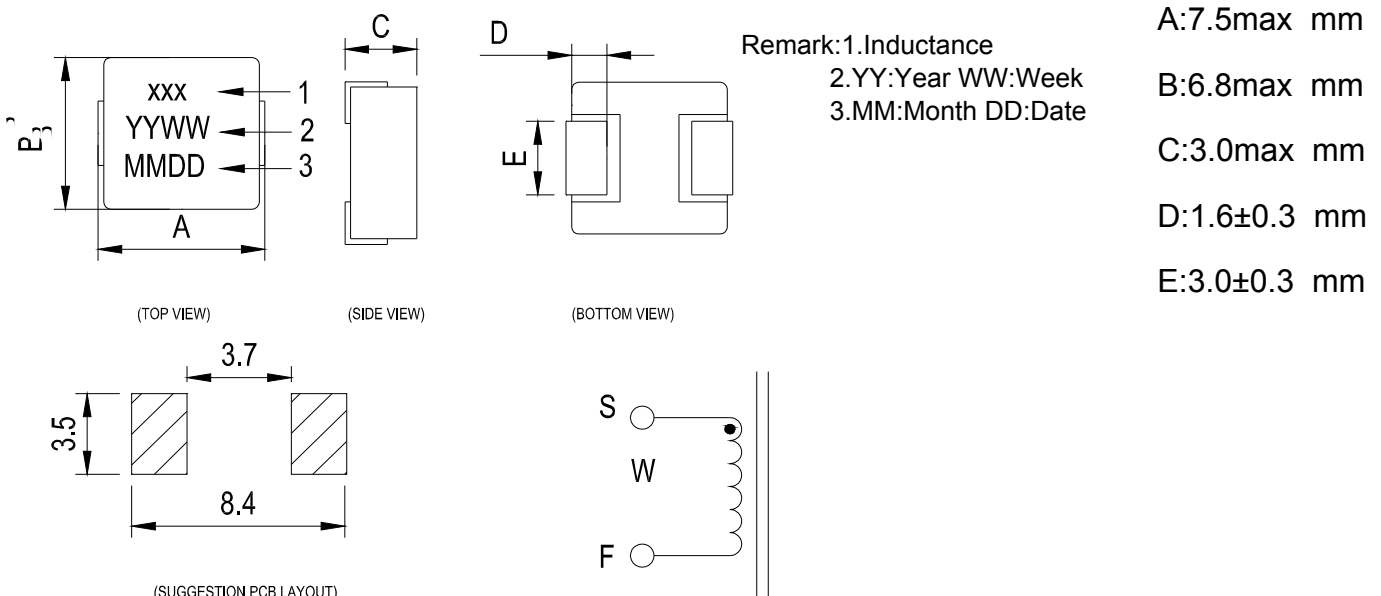
- (1) PDA/Notebook/Desktop/Server applications.
- (2) DC/DC converter.

3. PART NUMBER SYSTEM:



4. PHYSICAL CHARACTERISTICS AND ELECTRICAL CHARACTERISTICS:

HS-SM063T Series



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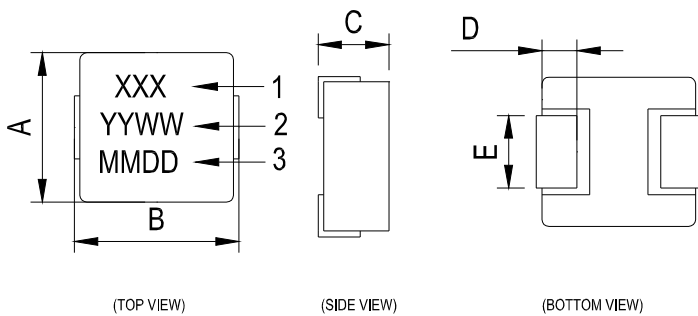
HSSM SERIES

HSSM063T SERIES						Rev.No.	A
						Page	2
PART NO.	Ls	DCR (mΩ) MAX		Idc	Isat	TEST FREQ.	
	(uH)0A	Typical	Maximum	dc(A) Typical	dc(A) Typical	(Hz)	
<input type="checkbox"/> HSSM063T-R10M-R-S	0.10	1.5	1.7	32.5	60.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R15M-R-S	0.15	1.9	2.5	30.0	45.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R20M-R-S	0.20	2.4	3.0	24.0	41.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R22M-R-S	0.22	2.5	2.8	23.0	40.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R33M-R-S	0.33	3.5	3.9	20.0	30.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R36M-R-S	0.36	2.6	3.9	20.0	26.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R47M-R-S	0.47	4.0	4.2	17.5	26.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R56M-R-S	0.56	4.7	5.0	16.5	25.5	100K/0.1V	
<input type="checkbox"/> HSSM063T-R68M-R-S	0.68	5.0	5.5	15.5	25.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-R82M-R-S	0.82	6.7	8.0	13.0	24.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-1R0M-R-S	1.0	9.0	10.0	11.0	22.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-1R5M-R-S	1.5	14.0	15.0	9.0	18.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-2R2M-R-S	2.2	18.0	20.0	8.0	14.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-2R5M-R-S	2.5	20.0	22.0	7.0	14.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-3R3M-R-S	3.3	28.0	30.0	6.0	13.5	100K/0.1V	
<input type="checkbox"/> HSSM063T-4R7M-R-S	4.7	37.0	40.0	5.5	10.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-5R6M-R-S	5.6	39.0	42.0	5.5	6.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-6R8M-R-S	6.8	54.0	60.0	4.5	8.0	100K/0.1V	
<input type="checkbox"/> HSSM063T-7R5M-R-S	7.5	54.0	60.0	4.2	7.8	100K/0.1V	
<input type="checkbox"/> HSSM063T-8R2M-R-S	8.2	64.0	68.0	4.0	7.5	100K/0.1V	
<input type="checkbox"/> HSSM063T-100M-R-S	10.0	102.0	105.0	3.0	7.0	100K/0.1V	

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSM SERIES

HSSM104T SERIES



Remark: 1. Inductance
2. YY: Year WW: Week
3. MM: Month DD: Date

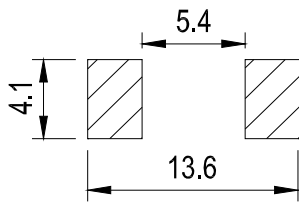
A: 10.4max mm

B: 11.5max mm

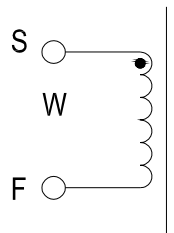
C: 4.0max mm

D: 2.0±0.5 mm

E: 3.0±0.5 mm



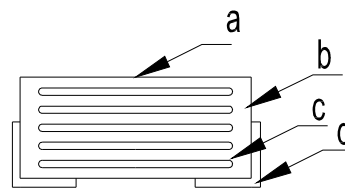
(SUGGESTION PCB LAYOUT)



.MATERIALS:

NO. DESCRIPTION

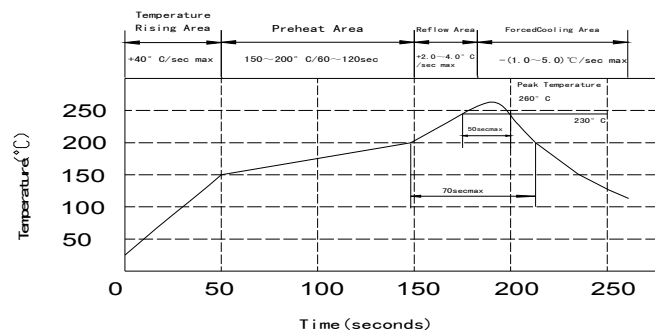
- a. INKING
- b. CORE
- c. WIRE
- d. CLIP



.GENERAL SPECIFICATION:

1. All test data is referred to 25 °C ambient.
2. I_{dc}: DC current (A) that will cause an approximate ΔT of 40 °C (Typical)
3. I_{sat}: DC current (A) that will cause L_o to drop approximately 30% (Typical)
4. Operating temperature range -55 °C to +125 °C.
5. Inductance tolerance ±20%.
6. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions.

Peak Temp: 260 °C max
Max time above 230 °C: 50 sec max
Max time above 200 °C: 70 sec max



Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

7. The rated current as listed is either the saturation current or the heating current depending on which value is lower.

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HSSM SERIES

HSSM104T SERIES						Rev.No.	A
						Page	2
PART NO.	Ls	DCR (mΩ) MAX		Idc	Isat	TEST FREQ.	
	(uH)0A	Typical	Maximum	dc(A) Typical	dc(A) Typical	(Hz)	
<input type="checkbox"/> HSSM104T-R22M-R-S	0.22	1.1	1.5	32.0	50.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-R36M-R-S	0.36	1.5	1.7	31.5	50.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-R47M-R-S	0.47	1.5	1.9	27.5	49.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-R56M-R-S	0.56	1.9	2.3	27.5	49.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-R68M-R-S	0.68	2.0	2.5	23.0	40.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-R88M-R-S	0.88	2.7	3.0	20.0	38.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-1R0M-R-S	1.00	3.7	4.1	17.5	36.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-1R5M-R-S	1.50	5.3	6.0	15.0	27.5	100K/0.1V	
<input type="checkbox"/> HSSM104T-1R8M-R-S	1.80	7.0	8.2	15.0	27.5	100K/0.1V	
<input type="checkbox"/> HSSM104T-2R2M-R-S	2.20	8.2	9.0	12.0	25.6	100K/0.1V	
<input type="checkbox"/> HSSM104T-3R3M-R-S	3.30	10.8	11.8	10.0	18.6	100K/0.1V	
<input type="checkbox"/> HSSM104T-4R7M-R-S	4.70	15.0	16.5	9.5	17.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-5R6M-R-S	5.60	17.6	19.3	8.5	16.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-6R8M-R-S	6.80	17.5	25.0	8.0	14.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-8R2M-R-S	8.20	21.2	23.3	8.0	13.5	100K/0.1V	
<input type="checkbox"/> HSSM104T-100M-R-S	10.00	33.2	36.5	6.8	12.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-150M-R-S	15.00	51.0	65.0	3.5	7.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-220M-R-S	22.00	90.0	120.0	2.0	3.0	100K/0.1V	
<input type="checkbox"/> HSSM104T-330M-R-S	33.00	155.0	200.0	1.8	2.8	100K/0.1V	
<input type="checkbox"/>							

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSM SERIES

HSSM105T SERIES

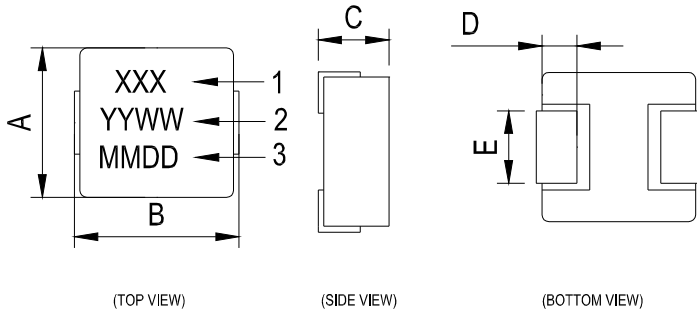
A:10.4max mm

B:11.5max mm

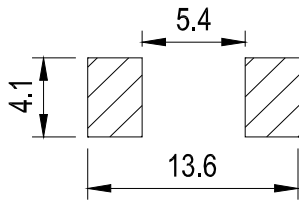
C:5.0max mm

D:2.0±0.5 mm

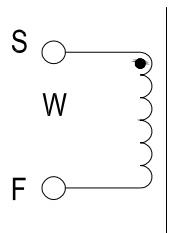
E:3.0±0.5 mm



Remark:1.Inductance
2.YY:Year WW:Week
3.MM:Month DD:Date

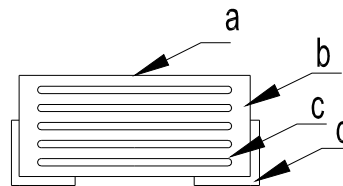


(SUGGESTION PCB LAYOUT)



.MATERIALS:

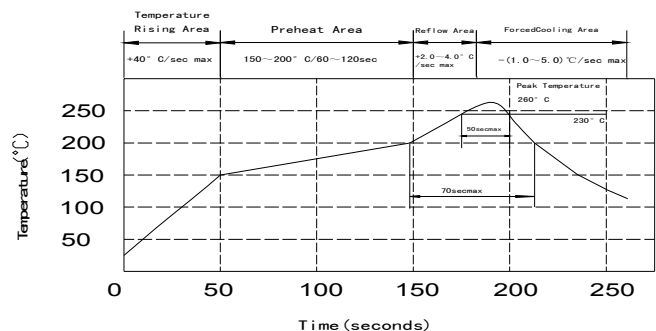
- | NO. | DESCRIPTION |
|-----|-------------|
| a. | INKING |
| b. | CORE |
| c. | WIRE |
| d. | CLIP |



.GENERAL SPECIFICATION:

- All test data is referred to 25°C ambient.
- Idc:DC current (A)that will cause an approximate ΔT of 40°C(Typical)
- Isat:DC current (A) that will cause Lo to drop approximately 30%(Typical)
- Operatmg temperature range -55°C to +125°C.
- Inductance tolerance ±20%.

PeakTemp:260°C max
Max time above230° C:50secmax
Max time above200° C:70secmax



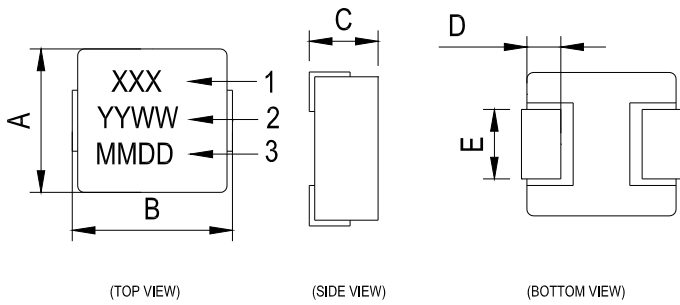
- The part temperature(ambient+temp rise)should not exceed 125°C under worse case operating conditions.

Circuit design,component placement,PWB trace size and thickness,airflow and other cooling provision all affect the part temperature.Part temperature should be verified in the end application.

- The rated current as listed is either the saturation current or the heating current depending on whith value is lower.

HSSM SERIES

HSSM135T SERIES



Remark: 1. Inductance
2. YY: Year WW: Week
3. MM: Month DD: Date

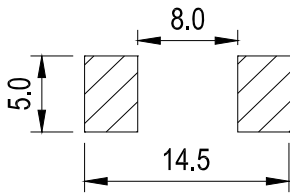
A: 13.0max mm

B: 13.8max mm

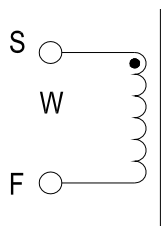
C: 5.0max mm

D: 2.2±0.5 mm

E: 3.8±0.5 mm

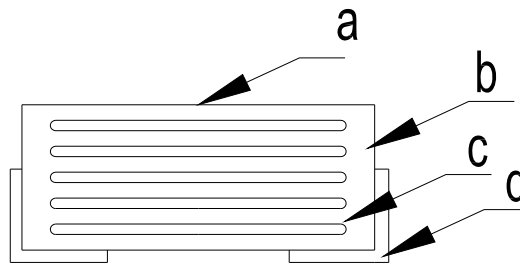


(SUGGESTION PCB LAYOUT)



.MATERIALS:

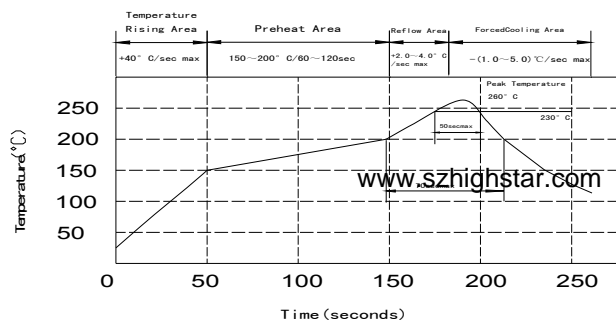
NO.	DESCRIPTION
a.	INKING
b.	CORE
c.	WIRE
d.	CLIP



.GENERAL SPECIFICATION:

- All test data is referred to 25°C ambient.
- Idc: DC current (A) that will cause an approximate ΔT of 40°C (Typical)
- Isat: DC current (A) that will cause Lo to drop approximately 30% (Typical)
- Operating temperature range -55°C to +125°C.
- Inductance tolerance $\pm 20\%$.
- The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.

PeakTemp: 260°C max
Max time above 230°C: 50sec max
Max time above 200°C: 70sec max



Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

- The rated current as listed is either the saturation current or the heating current depending on which value is lower.

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSM SERIES

HSSM104T SERIES

Rev.No.

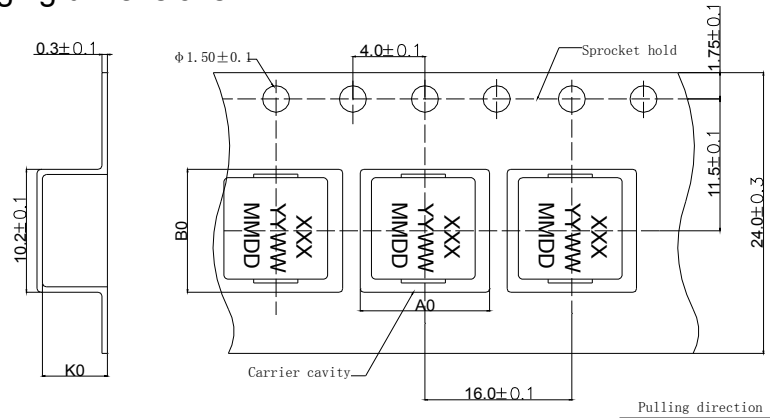
A

Page

PACKAGE:

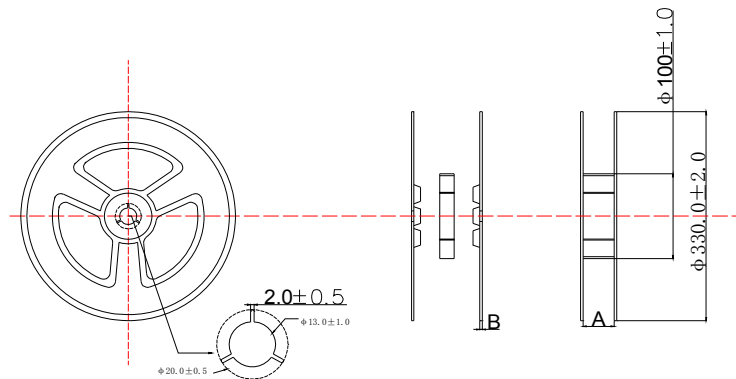
Dimensions:

Tape packaging dimensions



	A0	B0	K0
mm	10.7 ± 0.1	12.0 ± 0.1	4.5 ± 0.1

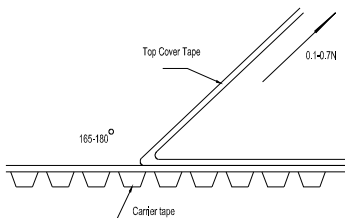
Reel dimensions



	A	B
mm	24.0 ± 0.3	2.0 ± 0.2

Package Quantity

SERIES	1 REEL		INNER CARTON		MIDDLE CARTON			OUTER CARTON		
	Q TY(PCS)	REEL	Q TY(PCS)	SIZE(mm)	REEL	Q TY(PCS)	SIZE(mm)	REEL	Q TY(PCS)	SIZE(mm)
SM104T	500	2	1000	345*340*70				4	2000	360*350*156



Peel force of top cover tape

The peel speed shall be about 300mm/minute

The peel force of top cover shall be between 0.1 to 0.7N