**New Product** 

## SURFACE MOUNT SHIELDED POWER INDUCTOR SERIES STS1305

Part Number

STS1305-R47M

STS1305-R68M

STS1305-1R0M

STS1305-1R5M

STS1305-2R2M

STS1305-3R3M

STS1305-4R7M

STS1305-6R8M

STS1305-100M

## FEATURES

- RoHS Compliant
- High current handling capacity
- Low profile
- Low noise, due to composite construction
- High frequency up to 5MHz

### **ELECTRICAL SPECIFICATIONS**

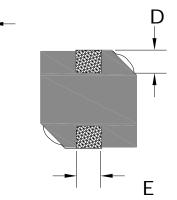
- Inductance range	0.47uH to 10.0uH
- Test condition	1Vrms @ 100kHz
-Testequipment	Quadtech 1750 LCR Meter

## **PHYSICAL SPECIFICATIONS**

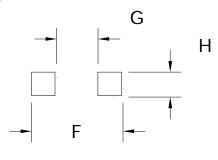
-Operating temp.	-55°C to +125°C		
-Core	Mixed material		
- Packaging	T & R	500 pieces per reel	
- Tape & reel spec.	Tape	24 mm embossed carrier	
	Reel	330 mm paper reel	

# **Dimensions in millimeters**

Length A	13.9 max
Width B	13.5 max
Height C	5.2 max
Terminal length D	$2.5 \pm 0.5$
Terminal width E	$3.0 \pm 0.5$
Footprint length F	15 ref
Pad spacing G	7 ref
Pad width H	4.5 ref



Suggested PCB layout



Notes:

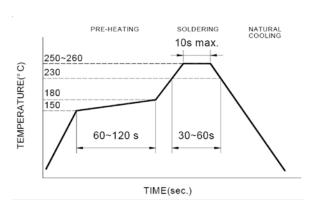
1. Based on  $\Delta T$  approximately 40°C

2. L drops 20% typical

All test data based on 25°C ambient

Part temperature (ambient + temp rise) must not exceed 125°C under worst case operating conditions. Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.

# **Suggested Reflow Profile**



#### Associated Components Technology / Phone 800-234-2645 / Fax 714-265-4810 / Website http://www.act1.com

#### **SPECIFICATIONS**

DCR

(ohms)

max

0.0013

0.0017

0.0025

0.0041

0.0055

0.0092

0.0150

0.0185

0.0255

Rated

Current (A)

(Note 1)

38

34

29

23

20

15

12

11

9

Saturation

Current (A)

(Note 2)

45

39

35

29

27

19

11

11

12

Tol

% +

20

20

20

20

20

20

20

20

20

C \_\_\_|

L(uH)

0.47

0.68

1.0

1.5

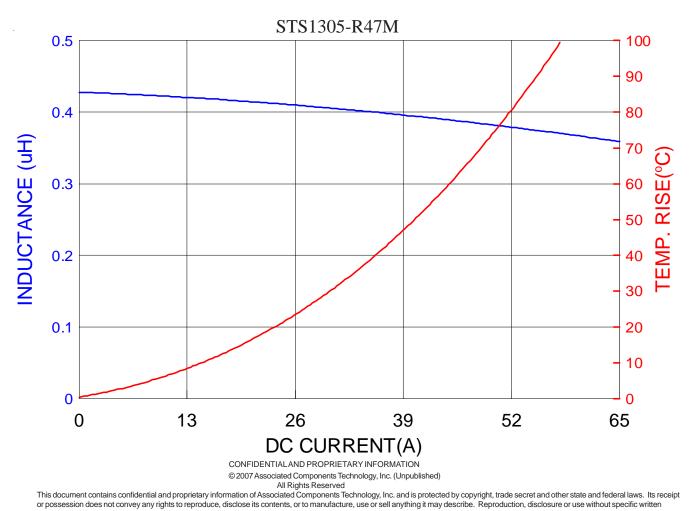
2.2

3.3

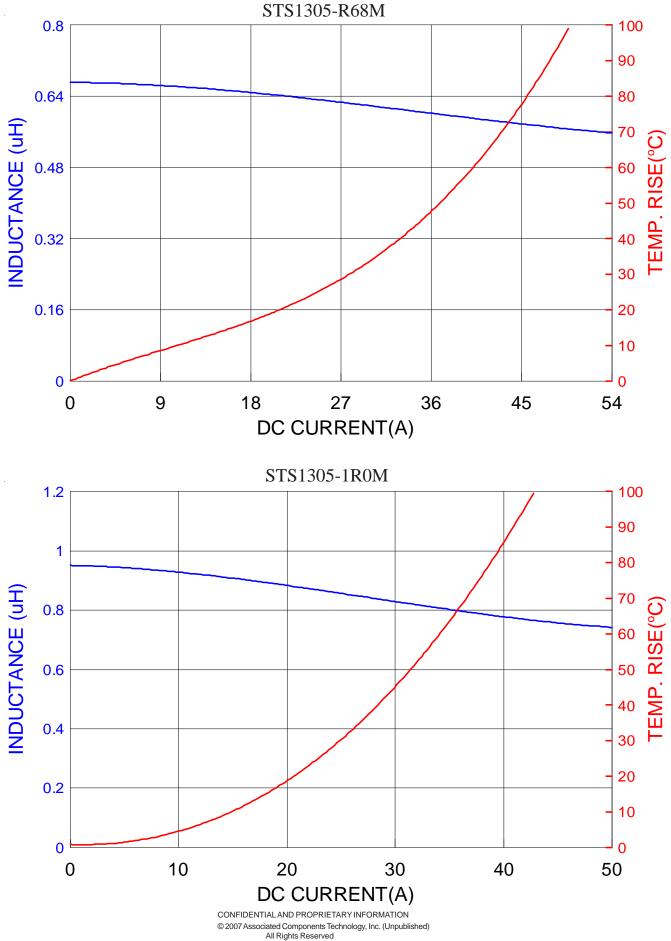
4.7

6.8

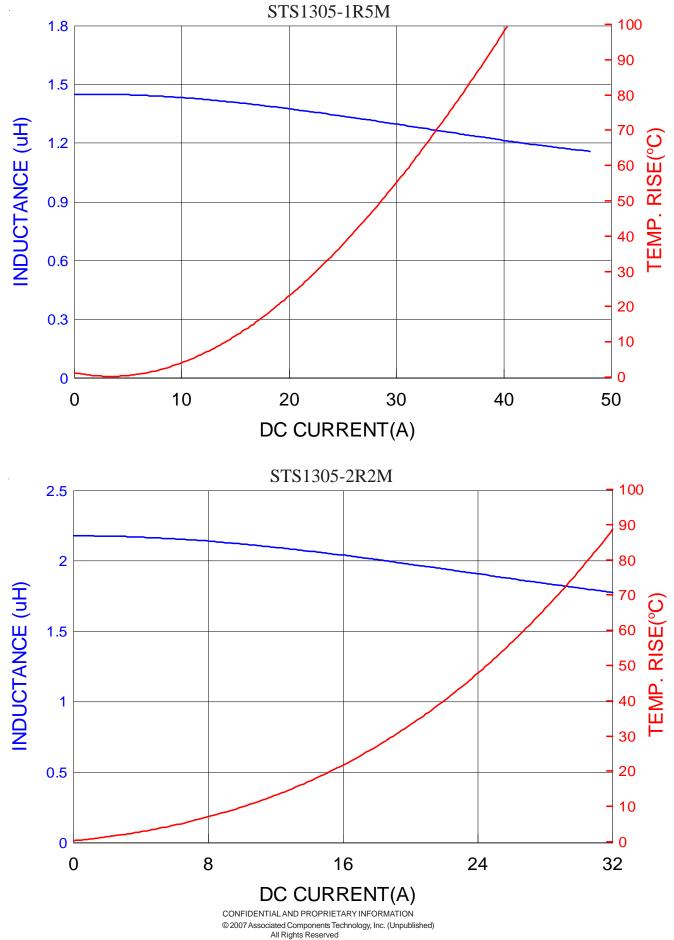
10



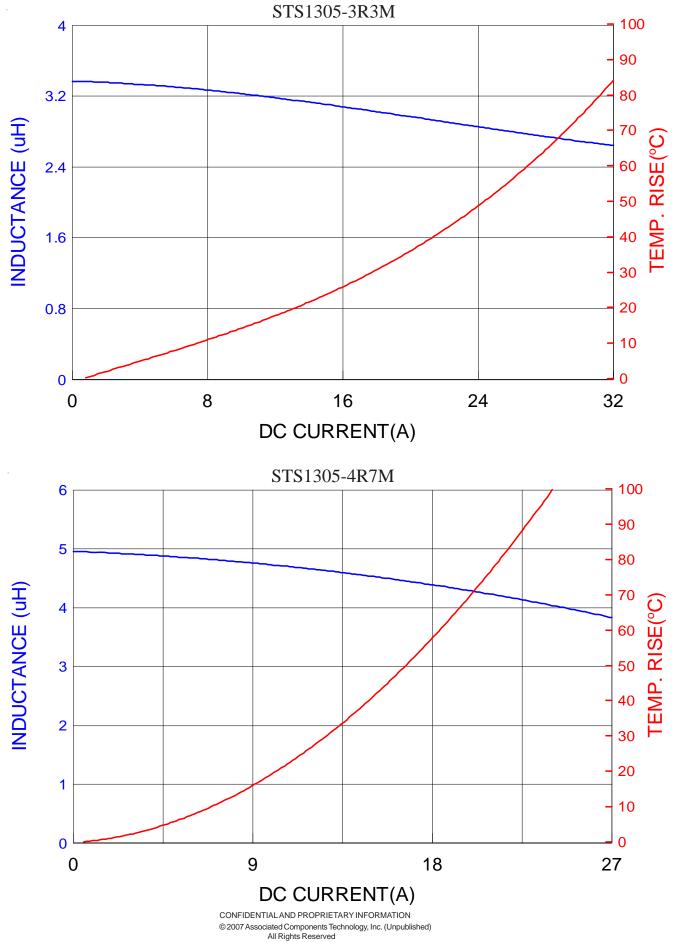
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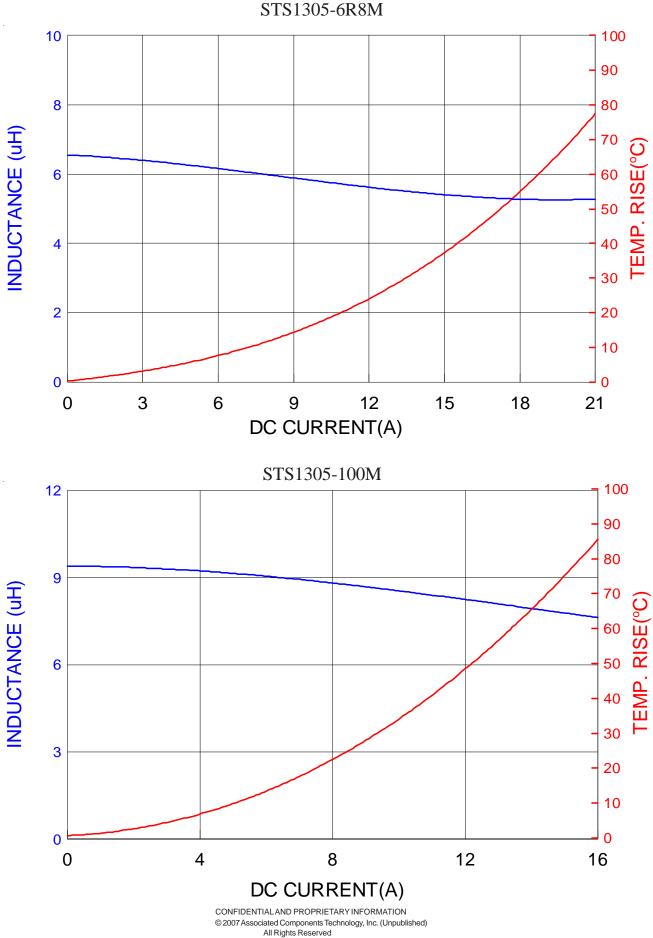
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