

CSBX1050-5R6M Datasheet



DiGi Electronics Part Number	CSBX1050-5R6M-DG
Manufacturer	CODACA
Manufacturer Product Number	CSBX1050-5R6M
Description	HIGH SATURATION POWER INDUCTORS
Detailed Description	5.6 μ H Shielded Wirewound Inductor 10.3 A 9.9mOhm Max Nonstandard High Saturation



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

CSBX1050-5R6M

Series:

CSBX1050

Type:

Wirewound

Inductance:5.6 μ H**Current Rating (Amps):**

10.3 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.197" (5.00mm)

Manufacturer:

CODACA

Product Status:

Active

Material - Core:

Metal Composite

Tolerance: \pm 20%**Current - Saturation (Isat):**

14A

DC Resistance (DCR):

9.9mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-55°C ~ 150°C

Features:

High Saturation

Package / Case:

Nonstandard

Size / Dimension:

0.433" L x 0.378" W (11.00mm x 9.60mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



High Current Power Inductor CSBX1050 Series



Outline:

- Special materials eliminate all thermal aging issues.
- Flat wire coil for low losses at high frequency
- Soft saturation makes them ideal for VDR/VRM applications

Features:

- Core material: Composite
- Core and winding loss:
- Environmental: RoHS, Reach compliant ,Halogen free
- Weight:2.62g
- Moisture Sensitivity:Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity).
- Operating temperature range: -55°C~+150°C (including coil's self temperature rise)
- Storage temperature range: -55°C~+150°C

Application:

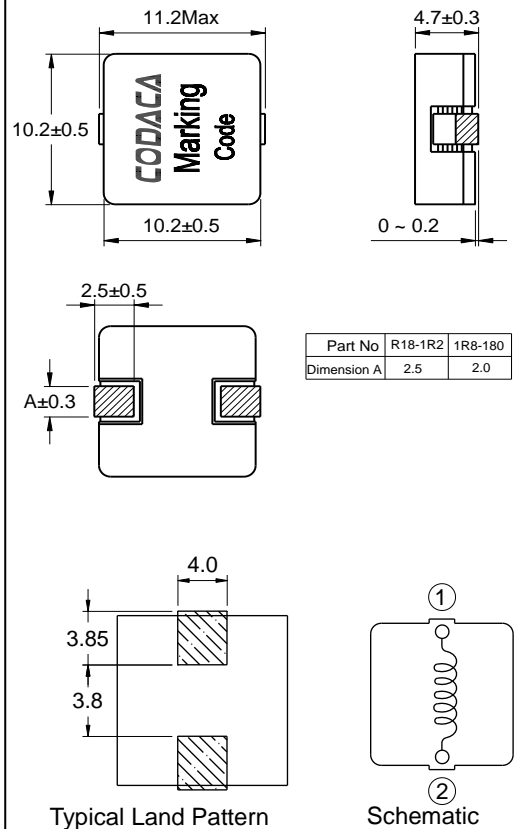
- Rraphic cards/ industrial computers.
- DC /DC converters/Motherboards/Filter
- High current switching regulators/Polyphase-switching regulators



1 Electrical Characteristics

Part No.	Inductance (μ H) $\times 1$ $\pm 20\%$	D.C.R. (m Ω)		Isat (A) $\times 2$ Typical	Irms (A) $\times 3$ Typical
		Typical	Max		
CSBX1050-R18M	0.18	0.45	0.55	80.0	32.0
CSBX1050-R39M	0.39	0.67	0.77	55.0	24.0
CSBX1050-R82M	0.82	1.26	1.50	36.0	23.0
CSBX1050-1R2M	1.20	2.05	2.35	32.0	19.0
CSBX1050-1R8M	1.80	2.98	3.45	27.0	17.0
CSBX1050-2R5M	2.50	4.06	4.70	23.0	15.0
CSBX1050-3R3M	3.30	5.37	6.50	19.0	13.0
CSBX1050-4R2M	4.20	7.11	8.50	17.0	11.0
CSBX1050-5R6M	5.60	8.62	9.90	14.0	10.3
CSBX1050-6R8M	6.80	10.5	12.1	12.5	9.00
CSBX1050-8R2M	8.20	13.1	15.1	11.5	8.10
CSBX1050-100M	10.0	16.4	18.9	10.2	7.10
CSBX1050-150M	15.0	25.9	29.8	8.75	5.50
CSBX1050-180M	18.0	34.7	39.9	8.30	5.00

2 Product Dimensions (mm)



All data is tested on 25°C ambient temperature

1. Inductance measure condition at 100kHz,0.5V
2. Isat:the actual value of DC current when the inductance decrease 30% of its initial value
3. Irms:the actual value of DC current when the temperature rise is $\Delta T 50^{\circ}C$ ($T_a=25^{\circ}C$)

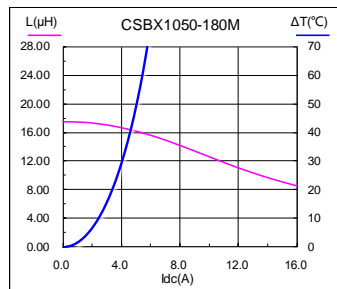
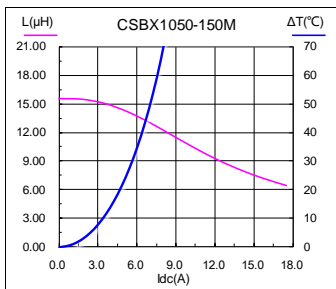
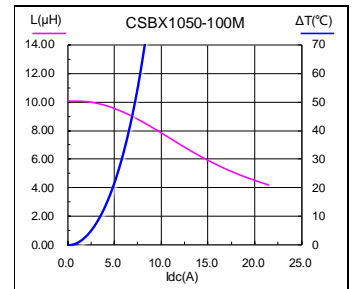
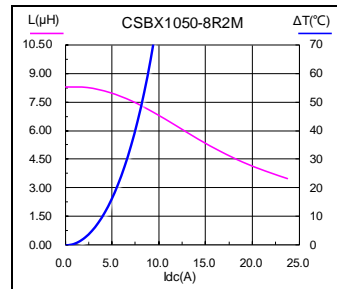
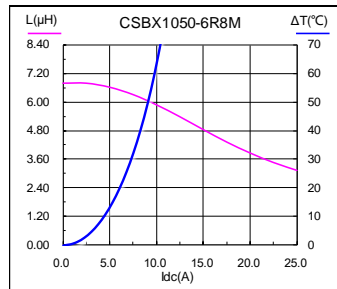
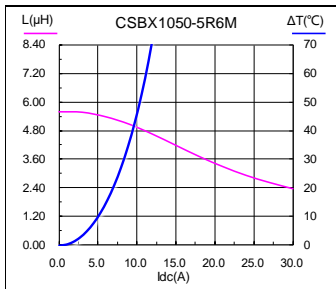
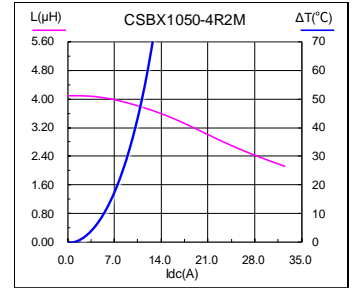
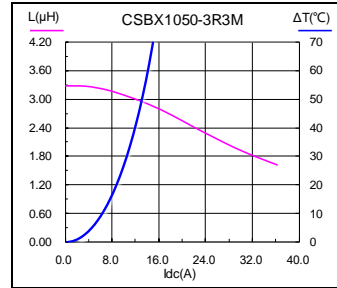
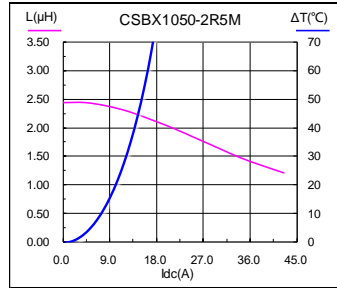
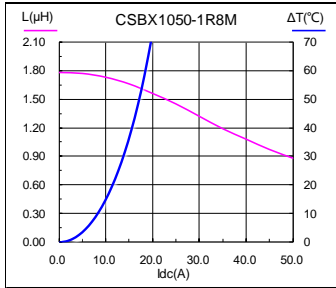
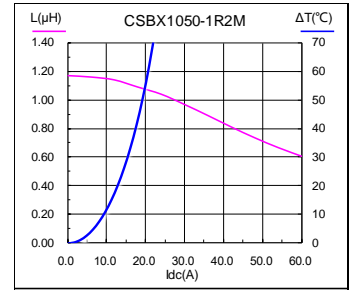
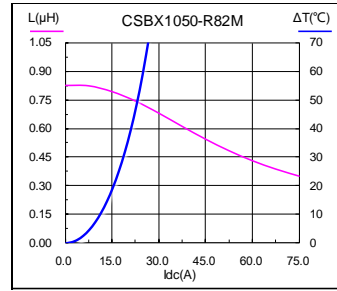
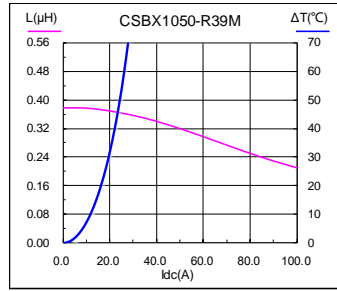
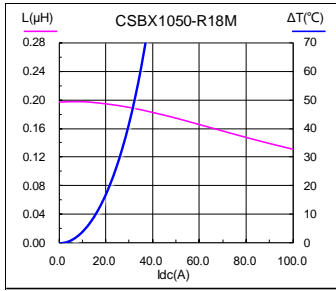
3 How to Order





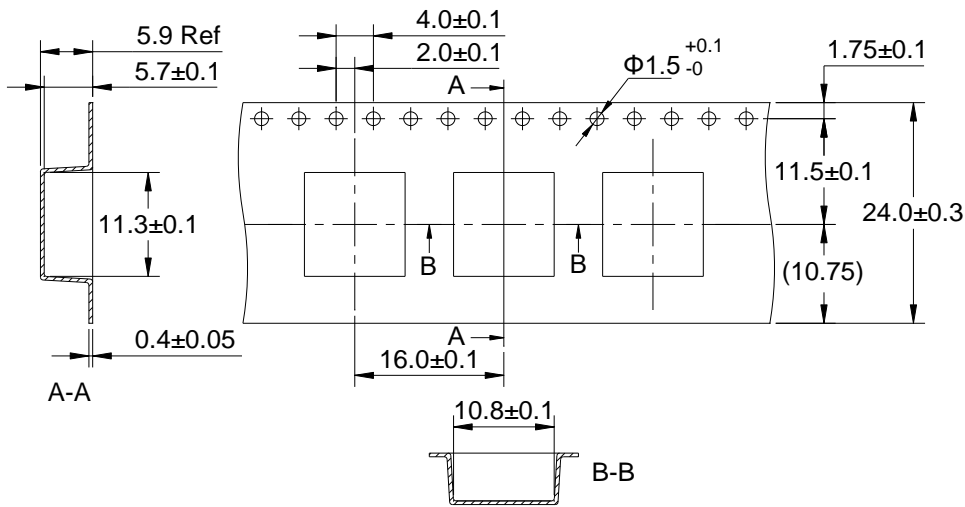
High Current Power Inductor CSBX1050 Series

4 Saturation Current vs Temperature Rise Current Curve



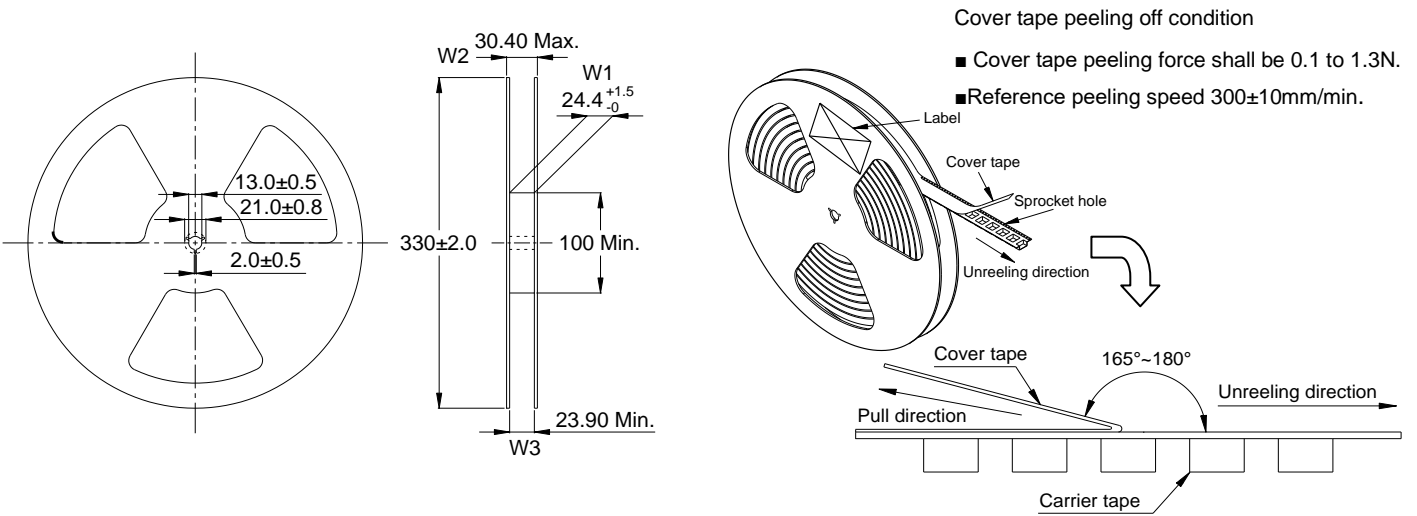
5 Packing Specification

5.1 Carrier Tape Dimensions (mm)



※ Packing is referred to the international standard IEC 60286-3.

5.2 Reel Dimensions (mm)



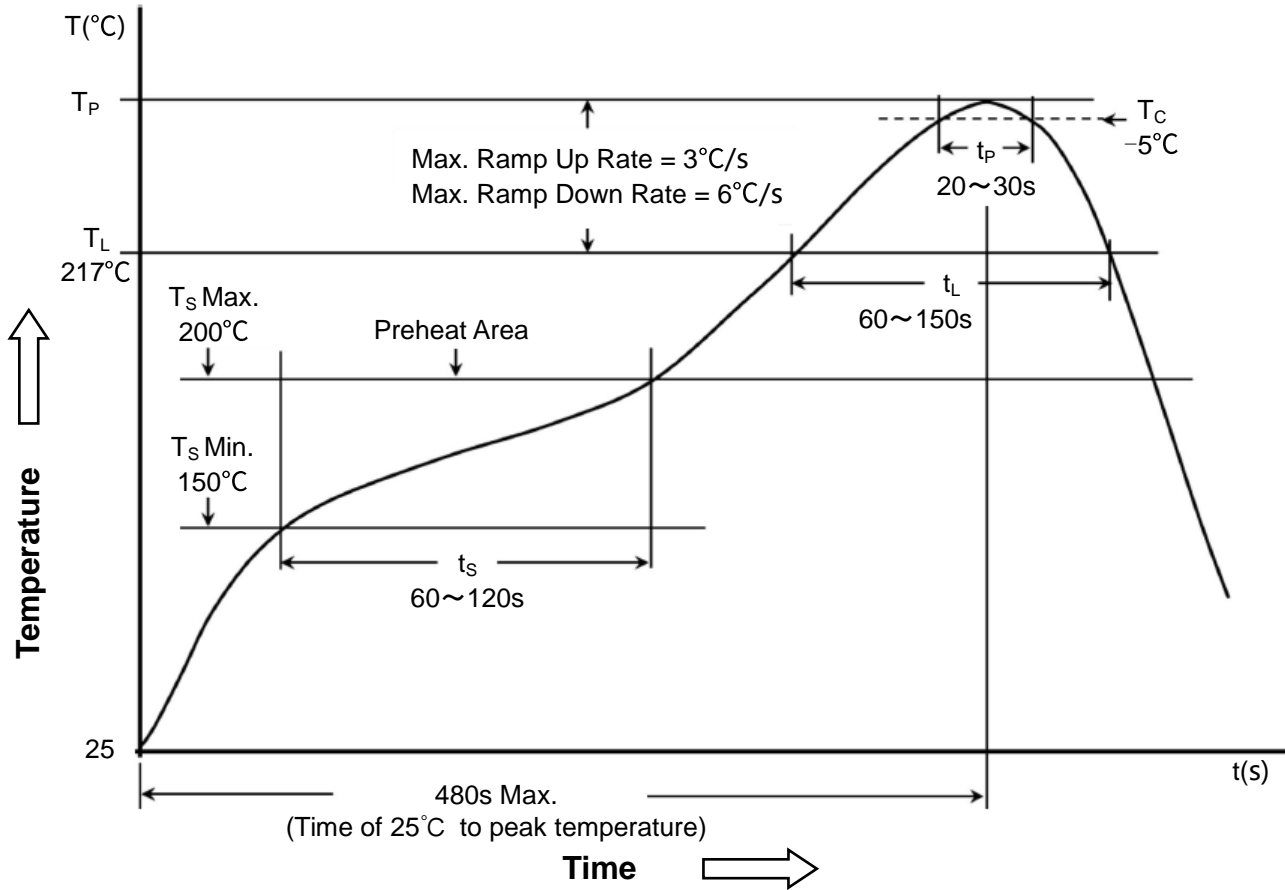
5.3 Carton Dimensions and Packing Quantity

- Inner Carton: 340×340×95mm
- Out Carton : 355×355×385mm

Product Series	Quantity / Reel	Inner Carton Quantity	Out Carton Quantity
CSBX1050	700pcs	1400pcs = (2×700)	4200pcs = (3×1400)

6 Soldering Specification

6.1 Reflow Profile for SMT Components



6.2 Classification of Peak Package Body Temperature (Tp)

	Package Thickness	Package Volume		
		<350 mm ³	350~2000 mm ³	>2000 mm ³
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6~2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

※ Reflow is referred to standard IPC/JEDEC J-STD-020D.

7 Notice of Use

- 7.1 Special remind:Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.
- 7.2 Product in packing storage condition:temperature 5~40°C, RH≤70%.
If taking out for use, the remaining products should be sealed in plastic bags and preserved in accordance with the above conditions, to avoid oxidation of terminals (electrodes), affecting soldering status.
- 7.3 A storage of Codaca Electronic products for longer than 12 months is not recommended, Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
- 7.4 Do not keep products in unsuitable storage conditions, such as areas susceptible to high temperatures, high humidity, dust or corrosion.
- 7.5 Always handle products with care.
- 7.6 Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering.
Always ensure optimum conditions for soldering.
- 7.7 When this product will be used on a similar or new project to the original one,
sometimes it might be unable to satisfy the specifications due to different condition of usage.
- 7.8 This inductor itself does not have any protective function in abnormal condition, such as overload, short-circuit, open-circuit conditions, etc. Therefore, it shall be confirmed that there is no risk of smoke, fire, dielectric withstand voltage, insulation resistance, etc., or use in abnormal conditions protective devices or protection circuit in the end product.
- 7.9 Hi-Pot test with higher voltage than spec value will damage insulating material and shorten its life.
- 7.10 If using in potting compound, the magnet wire coating might be damaged, please consult with us.
- 7.11 Refrain from rinsing coils. If necessary, please consult with us.
- *7.12 Codaca Electronic products without "V" prefix are qualified for industrial product requirement , and with "V" prefix are qualified for AEC-Q200, but it doesn't mean that Codaca Electronic products can absolutely meet specific industry norms and quality test standards in automotive electronics or more strict application fields . Codaca Electronic will be exempted from being responsible for the consequences of using Codaca products in automotive electronic or higher application field related to safety when without being aware of it.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.