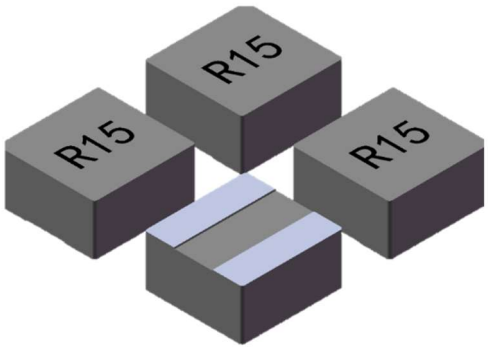
BTU0503 SERIES

HF Halogen Free RoHS COMPLIANT

HIGH POWER INDUCTOR



Applications:

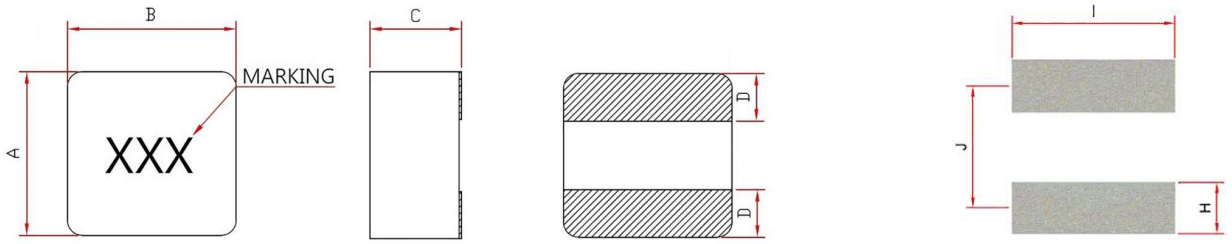
· DC/DC converter for CPU in Notebook PC

· Cellular phones, LCD displays, HDDs, DVCs, PDAs etc..

· Thin type on-board power supply module for exchanger

· VRM for server

Shape and Dimensions (Dimensions are in mm):



Item	A	B	C	D	H	I	J
BTU0503	5.30±0.2	5.50±0.2	3.0 Max	1.65±0.2	1.85	5.90	3.85

Features :

· High performance (Isat) realized by metal dust core.

· Low loss realized with low DCR

· Magnetically Shielded.

· Compliance with RoHS and Halogen Free

Characteristics:

· Saturation Current (Isat) : The current causes L_0 dropped approximately 30% typically.

· Temperature Rise Current(Irms) : The current will causes the coil temperature rose approximately △T=40℃

· Operating Temperature : -55℃ to 125℃.

Handling and precautions :

· Please contact us before cleaning this product.

Product Identification :

BTU 0503 – 1R0 M

(1) (2) (3) (4)

(1) Product Symbol

(2) Dimensions Code

（0503：length & width=5mm，Thickness=3.0mm）

(3) Inductance（1R0：1.0uH）

(4) Inductance tolerance（M: ± 20%）

Measurement equipment :

· L: HP4285A,CH11025,CH3302,CH1320,CH1320S LCR Meter.

· DCR: Chroma16502 Milliohm Meter

● BTU0503 Series

Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Max.	Typ.	Max.	Typ.	Max.	Typ.
BTU0503-R15M	0.15	20	0.90	0.72	41.0	45.0	35.0	38.0
BTU0503-R22M	0.22	20	1.55	1.05	32.0	38.0	30.0	33.0
BTU0503-R33M	0.33	20	2.2	1.54	27.5	32.0	25.5	28.5
BTU0503-R36M	0.36	20	2.4	1.80	25.0	29.0	24.5	27.0
BTU0503-R47M	0.47	20	3.0	2.30	22.5	26.0	21.5	24.0
BTU0503-R56M	0.56	20	3.6	2.83	21.0	24.0	20.0	22.0
BTU0503-R68M	0.68	20	4.6	3.34	18.5	21.5	17.5	19.5

If you require another part number please contact with us.

Note 1: Referenced ambient temperature 25℃.

Note 2: Test Condition :1MHz ,1.0 Vrms.

Note 3: I sat (Typ): DC current (A) that will cause L0 to drop approximately 30%.

I sat (Max): DC current (A) that will cause L0 to drop 30% Max.

I rms (Typ): DC current (A) that will cause an approximate △T of 40 °C.

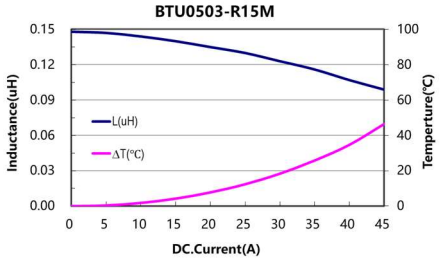
I rms (Max): DC current (A) that will cause △T of 40 °C max.

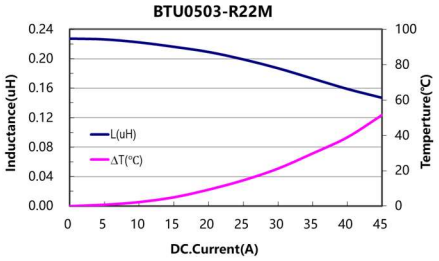
Note 4: Operating temperature range includes self-temperature rise.

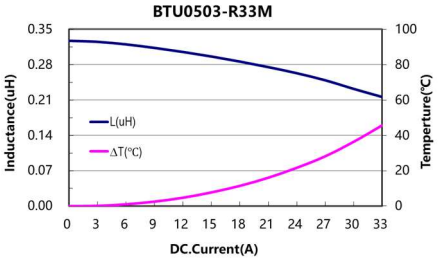
Note 5: The part temperature (ambient + temp rise) should not exceed 125℃ under the worst case operating condition. Circuit design, component, PCB trace size and thickness airflow and other cooling provisions all could affect the part temperature. Part temperature should be verified in the end application.

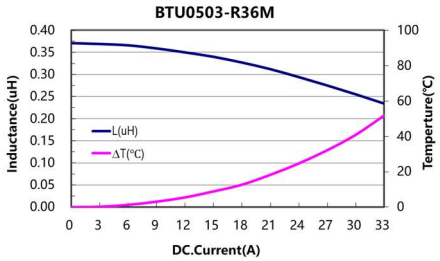
Note 6: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

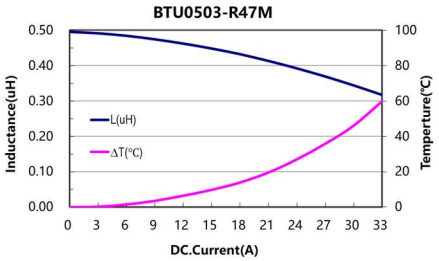
Typical performance curves :

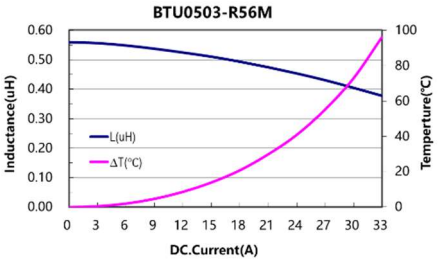


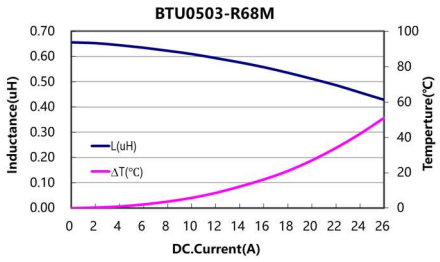












* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.