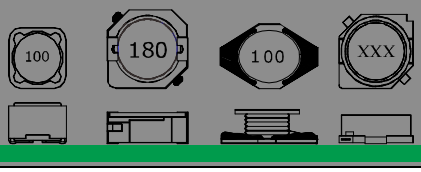
An ISO 9001 Company

SMD POWER INDUCTOR
– ESDIA5040 SERIES



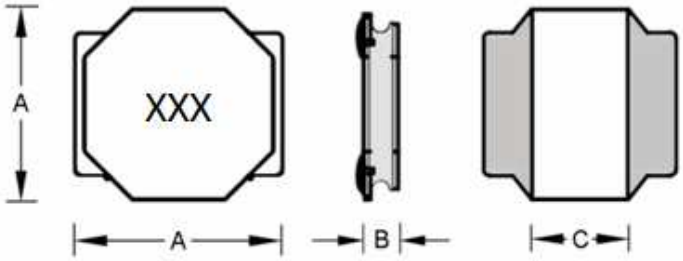
●FEATURE

1. Low profile and small size (Height: 4.00mm Max)
2. Low DC resistance

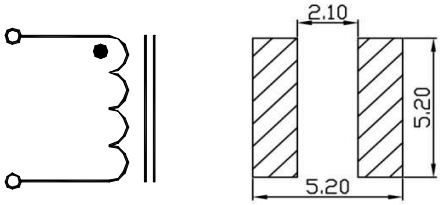
●Applications

1. Digital camera , PDA and others

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=5.00±0.40m/m ; B=4.00 m/m Max ; C= 2.40m/m REF

●Specification

Part Number	L(uH)	STAMP	DCR(Ω±30%)	Isat (A)	Irms (A)
ESDIA5040-1R0□	1.0	1R0	14m	7.50	4.60
ESDIA5040-1R5□	1.5	1R5	16m	7.10	4.40
ESDIA5040-2R2□	2.2	2R2	21m	5.70	3.70
ESDIA5040-3R3□	3.3	3R3	26m	4.80	3.50
ESDIA5040-4R7□	4.7	4R7	32m	4.20	3.20
ESDIA5040-6R8□	6.8	6R8	50m	3.30	2.40
ESDIA5040-100□	10	100	70m	2.80	2.20
ESDIA5040-150□	15	150	110m	2.30	1.80
ESDIA5040-220□	22	220	175m	1.80	1.40
ESDIA5040-330□	33	330	250m	1.50	1.10
ESDIA5040-470□	47	470	390m	1.20	0.90
ESDIA5040-680□	68	680	460m	0.90	0.80
ESDIA5040-101□	100	101	600m	0.85	0.75
ESDIA5040-221□	220	221	1600m	0.56	0.56
ESDIA5040-331□	330	331	2300m	0.50	0.50

Note1. Measurement frequency of Inductance value : at 100KHz

Note2. Measurement ambient temperature of L, DCR and IDC : at 25℃

Note3. Inductance Tolerance: N: ±30% ; M: ±20%

Note4. Isat : △L/L≦30%(This indicates the value of current when the inductances is 30% lower than its initial value at D.C. superimposition)

Note5.Packaging: Taping ; Quantity: 1500 Pieces/reel

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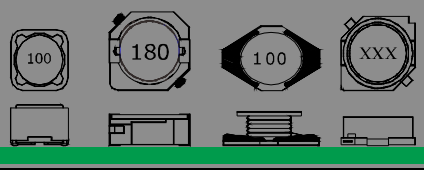
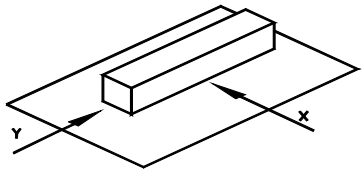


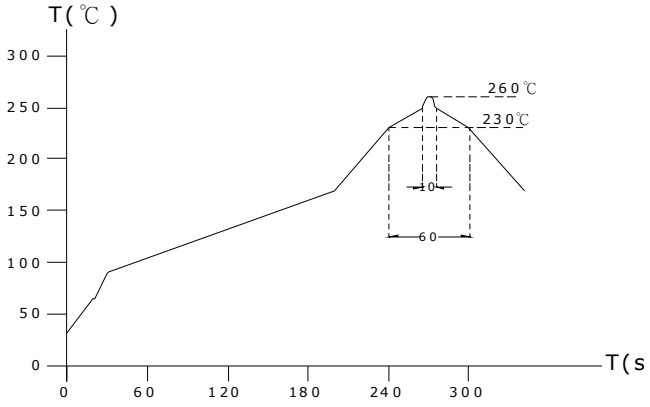
GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 125℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.
   Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/℃(-25~+80℃ degree Celsius), inductance deviation within±5.0%, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2℃and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within ±5%, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within ±5%, after being dropped once with 981m/s2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260℃, 10 seconds(See attached recommend reflow)
11. Storage condition: Temperature Range: 0℃ ~ 35℃；-40℃ ~ 125℃ (after PCB)，Humidity Range: 50% ~ 70% RH
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition