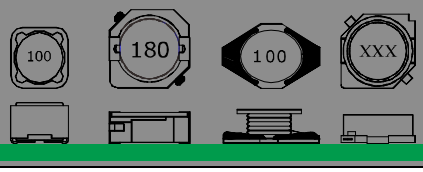
An ISO 9001 Company

SMD POWER INDUCTOR
– ESDIA4030 SERIES



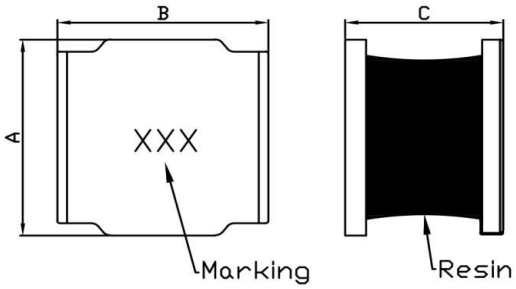
●FEATURE

1. Low profile and small size (Height: 3.0mm Max)
2. Low DC resistance

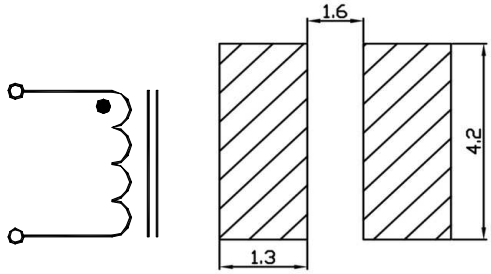
●Applications

1. Digital camera , PDA and others

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=4.00±0.20m/m ; B=4.00±0.20m/m ; C= 3.0m/m MAX

●Specification

Part Number	L(uH)	STAMP	DCR(Ω±30%)	Isat(A)	Irms
ESDIA4030-R91N	0.91±30%	R91	0.022	6.25	3.15
ESDIA4030-1R2N	1.2±30%	1R2	0.025	5.80	2.96
ESDIA4030-1R5N	1.5±30%	1R5	0.030	5.40	2.92
ESDIA4030-1R8N	1.8±30%	1R8	0.035	5.20	2.90
ESDIA4030-2R2N	2.2±30%	2R2	0.040	4.90	2.50
ESDIA4030-3R3M	3.3±20%	3R3	0.060	3.30	2.20
ESDIA4030-4R3M	4.3±20%	4R3	0.072	2.95	1.90
ESDIA4030-4R7M	4.7±20%	4R7	0.078	2.90	1.70
ESDIA4030-5R6M	5.6±20%	5R6	0.090	2.60	1.65
ESDIA4030-6R2M	6.2±20%	6R2	0.110	2.50	1.60
ESDIA4030-6R8M	6.8±20%	6R8	0.110	2.45	1.60
ESDIA4030-7R5M	7.5±20%	7R5	0.120	2.20	1.55
ESDIA4030-8R2M	8.2±20%	8R2	0.130	2.10	1.50
ESDIA4030-9R1M	9.1±20%	9R1	0.140	2.00	1.48
ESDIA4030-100M	10±20%	100	0.150	1.95	1.45
ESDIA4030-120M	12±20%	120	0.170	1.70	1.30
ESDIA4030-150M	15±20%	150	0.230	1.65	1.10

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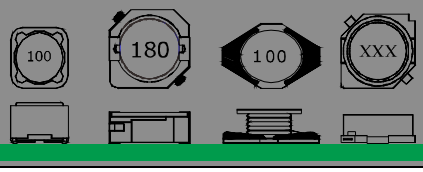


Part Number	L(uH)	STAMP	DCR(Ω±30%)	Isat(A)	Irms
ESDIA4030-180M	18±20%	180	0.300	1.40	1.10
ESDIA4030-220M	22±20%	220	0.380	1.30	1.00
ESDIA4030-330M	33±20%	330	0.500	1.10	0.80
ESDIA4030-360M	36±20%	360	0.520	1.05	0.80
ESDIA4030-390M	39±20%	390	0.530	1.03	0.75
ESDIA4030-430M	43±20%	430	0.580	1.00	0.73
ESDIA4030-470M	47±20%	470	0.650	0.95	0.70
ESDIA4030-510M	51±20%	510	0.730	0.90	0.68
ESDIA4030-560M	56±20%	560	0.900	0.85	0.65
ESDIA4030-620M	62±20%	620	0.930	0.80	0.53
ESDIA4030-680M	68±20%	680	0.950	0.75	0.52
ESDIA4030-750M	75±20%	750	1.000	0.70	0.48
ESDIA4030-820M	82±20%	820	1.050	0.66	0.47
ESDIA4030-910M	91±20%	910	1.140	0.65	0.46
ESDIA4030-101M	100±20%	101	1.150	0.60	0.45
ESDIA4030-121M	120±20%	121	1.450	0.55	0.42

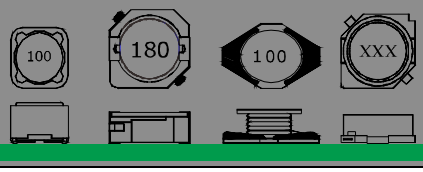
Note1. Measurement frequency of Inductance value : at 100KHz

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

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

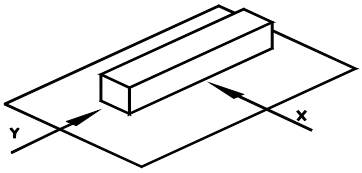
Note4. Isat : This indicates the value of current when the inductances is 30% lower than its initial value at D.C. superimposition.(Ta=20℃)

Note5. Irms:D.C. current when at Δt=40℃(typ.).(Ta=25℃)



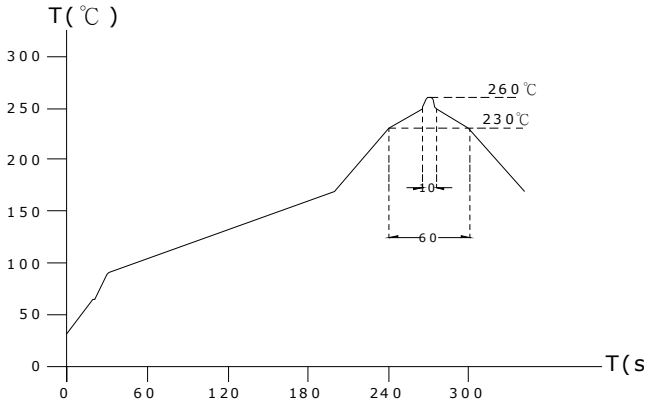
GENERAL CHARACTERISTICS

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℃).
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 environment: Storage condition: Temperature Range: 10℃ ~ 35℃ (Generally: 21℃ ~ 31℃) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range: -35℃ ~ 85℃ , Humidity Range: 50% ~ 95% 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