

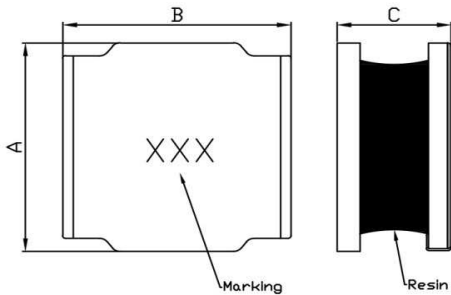
● **FEATURE**

1. Low profile (Height: 4.50mm Max)
2. Low DC resistance

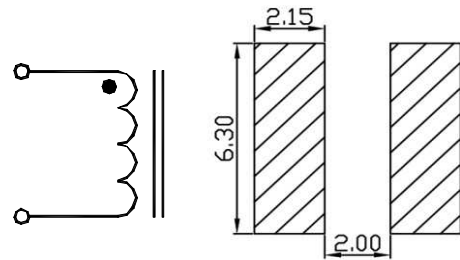
● **Applications**

1. Digital camera , PDA and others

● **Shape and Dimension**



● **Schematics and Land Patterns(mm)**



A=6.00±0.40m/m ; B=6.00±0.40m/m ; C=4.50m/m Max.

● **Specification**

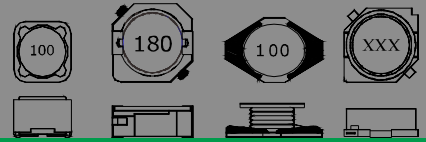
Part Number	L(uH)	Marking	DCR(mΩ±30%)	Isat(A)	Irms(A)
ESDIA6045-1R0N	1.0±30%	1R0	12.0	12.2	6.50
ESDIA6045-1R8N	1.8±30%	1R8	17.0	9.60	5.60
ESDIA6045-2R2N	2.2±30%	2R2	19.0	8.80	5.00
ESDIA6045-3R3N	3.3±30%	3R3	24.0	7.50	4.30
ESDIA6045-4R7M	4.7±20%	4R7	31.0	6.70	3.90
ESDIA6045-5R1M	5.1±20%	5R1	33.0	6.00	3.50
ESDIA6045-6R8M	6.8±20%	6R8	43.0	5.30	3.20
ESDIA6045-8R2M	8.2±20%	8R2	50.0	4.60	2.70
ESDIA6045-100M	10±20%	100	57.0	4.50	2.70
ESDIA6045-150M	15±20%	150	80.0	3.40	2.20
ESDIA6045-220M	22±20%	220	125.0	3.00	1.90
ESDIA6045-270M	27±20%	270	160.0	2.50	1.40
ESDIA6045-330M	33±20%	330	180.0	2.30	1.30
ESDIA6045-470M	47±20%	470	245.0	1.90	1.20
ESDIA6045-680M	68±20%	680	330.0	1.60	1.00
ESDIA6045-101M	100±20%	101	600.0	1.30	0.80
ESDIA6045-331M	330±20%	331	1800.0	0.70	0.35
ESDIA6045-102M	1000±20%	102	6000.0	0.40	0.22

Note1. Measurement frequency of Inductance value : at 100KHz



An ISO 9001 Company

SMD POWER INDUCTOR – ESDIA6045 SERIES



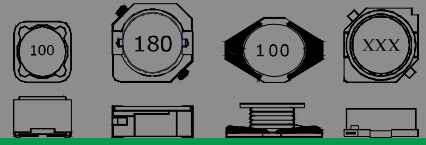
Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. Inductance Tolerance: M : ±20%

Note4. Isat : $\Delta L/L \leq 30\%$ (This indicates the value of current when the inductance is 30% lower than its initial value at D.C. superimposition)

Note5. Irms: D.C. current when at $\Delta t=40^\circ\text{C}$ (typ.). ($T_a=25^\circ\text{C}$)

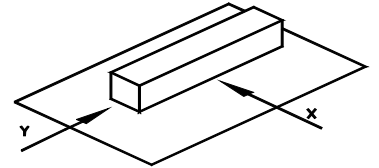
Note6. Packaging: Taping ; Quantity: 1000 Pieces/reel



GENERAL CHARACTERISTICS

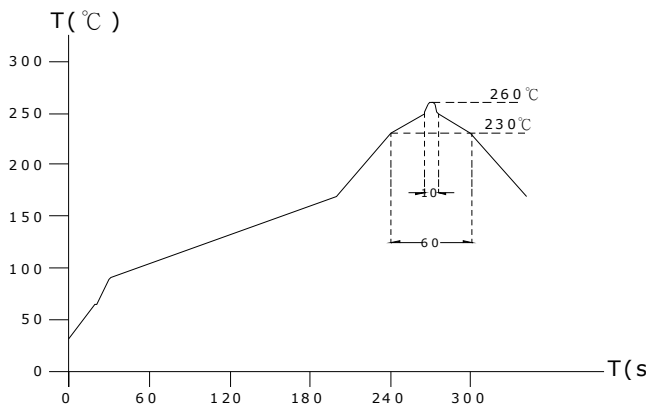
1. Operating temperature range: -40 TO + 125°C (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at 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 $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C degree Celsius), inductance deviation within $\pm 5.0\%$, after 96 hours.
7. Humidity characteristics (Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, 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 $\pm 5\%$, 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°C, 10 seconds (See attached recommend reflow)
11. Storage condition: Temperature Range: 0°C ~ 35°C ; -40°C ~ 125°C (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

