

**SLIM SMD INDUCTOR
– ESD4D20 SERIES**



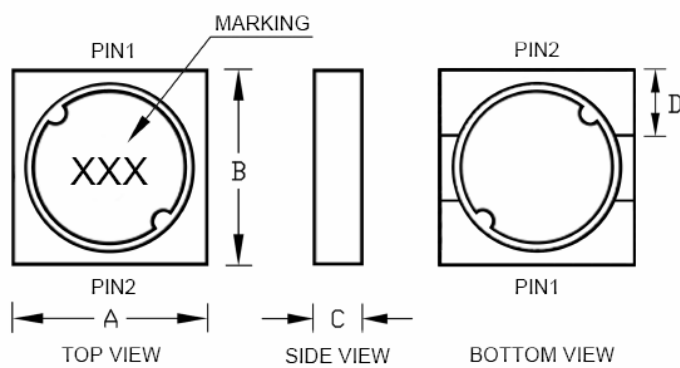
● FEATURE

1. Low profile and small size
2. Low DC resistance
3. Magnetic Shielding type

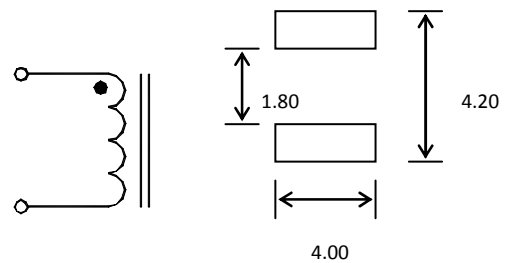
● Applications

1. LCD panels and others portable

● Shape and Dimension



● Schematics and Land Patterns(mm)



● Specification

Dimension in m/m

TYPE	A	B	C	D
ESD4D20	4.10 MAX	4.10 MAX	2.00 MAX	1.30

Note1. Measurement frequency of Inductance value : at 100KHz

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

Note3. Idc: DC current at which the inductance drops 30% from its value without current; average current for 40°C temperature rise from 25°C ambient

Note4. Inductance tolerance: M: ±20%

Note5. Ordering Code: TYPE NAME: ESD4D20

Main Inductance: 100 (10uH)

Tolerance : M (±20%)

Note6. This specification might be changed without notice due to under developing and improving.

Thank you for your understanding.



An ISO 9001 Company

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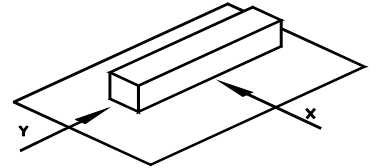


Part Number	L (μ H)	Marking	DCR (Ω MAX.)	I _{dc} (A)
ESD4D20-R47N	0.47 \pm 30%	R47	0.017	1.84
ESD4D20-1R0M	1.0 \pm 20%	1R0	0.030	1.80
ESD4D20-2R2M	2.2 \pm 20%	2R2	0.058	1.50
ESD4D20-3R3M	3.3 \pm 20%	3R3	0.078	1.30
ESD4D20-4R7M	4.7 \pm 20%	4R7	0.146	1.10
ESD4D20-6R8M	6.8 \pm 20%	6R8	0.238	0.90
ESD4D20-8R2M	8.2 \pm 20%	8R2	0.272	0.80
ESD4D20-100M	10 \pm 20%	100	0.299	0.70
ESD4D20-150M	15 \pm 20%	150	0.472	0.61
ESD4D20-220M	22 \pm 20%	220	0.592	0.52
ESD4D20-330M	33 \pm 20%	330	1.075	0.43
ESD4D20-470M	47 \pm 20%	470	1.309	0.34
ESD4D20-680M	68 \pm 20%	680	2.613	0.25
ESD4D20-820M	82 \pm 20%	820	2.950	0.20
ESD4D20-101M	100 \pm 20%	101	3.255	0.19
ESD4D20-151M	150 \pm 20%	151	3.550	0.12
ESD4D20-221M	220 \pm 20%	221	4.900	0.09
ESD4D20-331M	330 \pm 20%	331	10.80	0.08
ESD4D20-471M	470 \pm 20%	471	15.00	0.075
ESD4D20-681M	680 \pm 20%	681	18.20	0.07
ESD4D20-102M	1000 \pm 20%	102	24.00	0.065

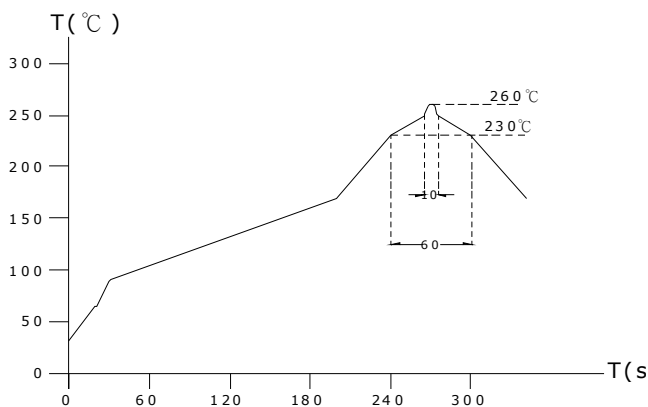


GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 105°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 ~ 105°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

