

**SLIM SMD INDUCTOR**  
**- ESD5D25 SERIES**



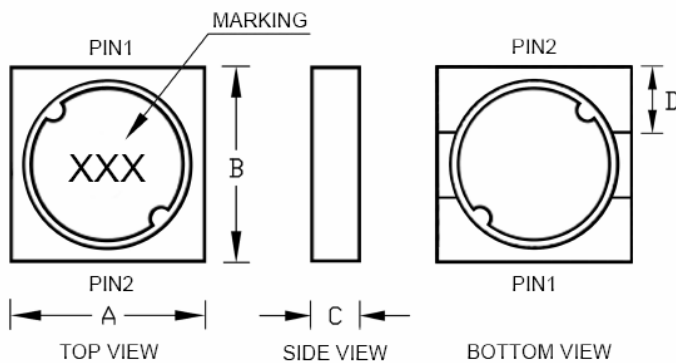
● **FEATURE**

1. Low profile and small size(Height=2.50MAX)
2. Low DC resistance
3. Magnetic Shielding type

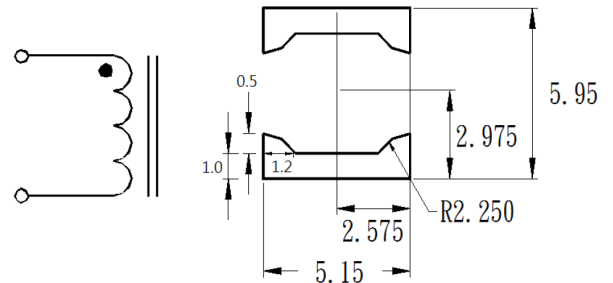
● **Applications**

1. Digital camera and others portable

● **Shape and Dimension**



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



A=5.30m/m MAX ; B=5.30m/m MAX ; C=2.50m/m MAX ; D=1.50m/m REF.

MARKING= Inductance value

● **Specification**

Part Number	L (uH)	Marking	DCR (Ω MAX.)	DCR (Ω Typ.)	Isat (A)	Irms (A)
ESD5D25-R47N	0.47±30%	R47	0.018	0.0177	6.00	3.88
ESD5D25-R82N	0.82±30%	R82	0.021	0.0208	4.67	3.58
ESD5D25-1R2N	1.2±30%	1R2	0.028	0.0240	3.81	3.33
ESD5D25-1R5N	1.5±30%	1R5	0.030	0.0274	3.23	3.12
ESD5D25-2R2N	2.2±30%	2R2	0.044	0.0311	2.80	2.93
ESD5D25-3R3N	3.3±30%	3R3	0.060	0.0384	2.21	2.64
ESD5D25-4R7N	4.7±30%	4R7	0.075	0.0467	1.83	2.39
ESD5D25-6R8N	6.8±30%	6R8	0.13	0.0556	1.56	2.19
ESD5D25-8R2N	8.2±30%	8R2	0.14	0.0724	1.45	1.92
ESD5D25-100M	10±20%	100	0.15	0.0824	1.27	1.80
ESD5D25-150M	15±20%	150	0.23	0.0956	1.08	1.67
ESD5D25-220M	22±20%	220	0.30	0.1478	0.857	1.34
ESD5D25-330M	33±20%	330	0.45	0.2149	0.711	1.11
ESD5D25-470M	47±20%	470	0.55	0.3156	0.592	0.919
ESD5D25-680M	68±20%	680	0.78	0.4850	0.482	0.741

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Part Number	L (uH)	Marking	DCR (Ω MAX.)	DCR (Ω Typ.)	Isat (A)	Irms (A)
ESD5D25-820M	82±20%	820	0.95	0.5242	0.441	0.713
ESD5D25-101M	100±20%	101	1.10	0.5937	0.398	0.670
ESD5D25-151M	150±20%	151	2.50	0.8723	0.328	0.553
ESD5D25-221M	220±20%	221	2.60	1.34	0.268	0.446
ESD5D25-331M	330±20%	331	5.00	2.07	0.219	0.359
ESD5D25-471M	470±20%	471	6.25	3.10	0.184	0.293
ESD5D25-681M	680±20%	681	8.50	3.88	0.154	0.262
ESD5D25-821M	820±20%	821	10.5	5.04	0.139	0.230
ESD5D25-102M	1000±20%	102	12.0	5.70	0.126	0.216

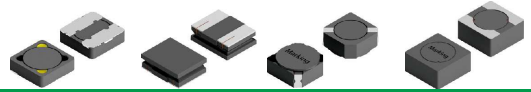
Note1. Measurement frequency of Inductance value : at 100KHz

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

Note3. Isat: DC current at which the inductance drops 30% from its value without current

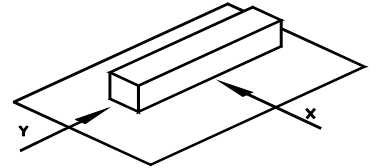
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient

Note5. Packaging: Taping ; Quantity: 2000 Pieces/reel

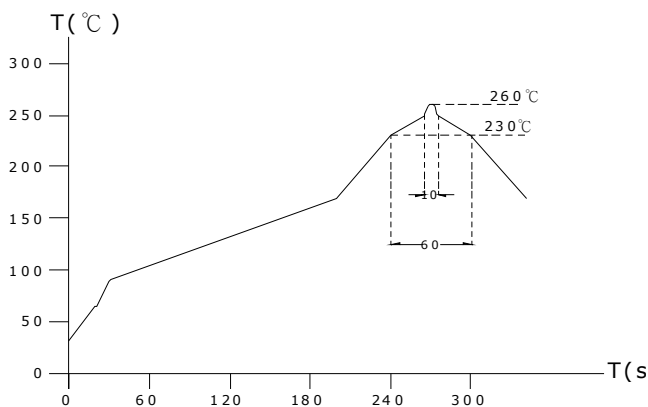


## GENERAL CHARACTERISTICS

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/s<sup>2</sup> (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

