

AD5D18 TYPE

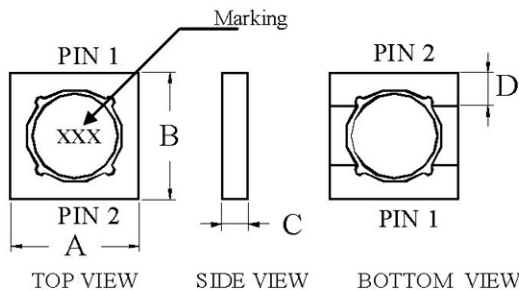
●FEATURE

1. Low profile and small size(Height=1.80MAX)
2. Low DC resistance
3. Magnetic Shielding type

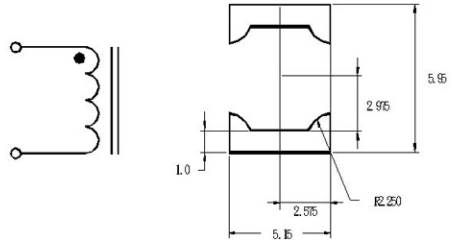
●Applications

1. Digital camera,PDA and others portable

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=5.20m/m MAX ; B=5.20m/m MAX ; C=1.80m/m MAX ; MARKING= Inductance value

●Specification

Part Number	L (uH)	Marking	DCR (ΩTyp.)	Isat (A)	Irms (A)
AD5D18-R47M	0.47±20%	R47	0.0201	4.63	3.58
AD5D18-R82M	0.82±20%	R82	0.0247	3.60	3.24
AD5D18-1R2M	1.2±20%	1R2	0.0294	2.95	2.97
AD5D18-1R5M	1.5±20%	1R5	0.0345	2.49	2.73
AD5D18-2R2M	2.2±20%	2R2	0.0398	2.16	2.55
AD5D18-3R3M	3.3±20%	3R3	0.0605	1.71	2.07
AD5D18-4R7M	4.7±20%	4R7	0.0824	1.54	1.77
AD5D18-6R2M	6.2±20%	6R2	0.1000	1.30	1.61
AD5D18-8R2M	8.2±20%	8R2	0.1351	1.12	1.38
AD5D18-100M	10±20%	100	0.1584	0.982	1.28
AD5D18-150M	15±20%	150	0.2278	0.831	1.06
AD5D18-220M	22±20%	220	0.3366	0.689	0.876
AD5D18-330M	33±20%	330	0.5057	0.568	0.715
AD5D18-470M	47±20%	470	0.7732	0.470	0.578
AD5D18-680M	68±20%	680	0.9798	0.390	0.514
AD5D18-820M	82±20%	820	1.30	0.356	0.446

Part Number	L (μ H)	Marking	DCR (Ω Typ.)	Isat (A)	Irms (A)
AD5D18-101M	100 \pm 20%	101	1.47	0.321	0.419
AD5D18-151M	150 \pm 20%	151	2.18	0.263	0.345
AD5D18-221M	220 \pm 20%	221	2.95	0.217	0.296
AD5D18-331M	330 \pm 20%	331	4.20	0.177	0.248
AD5D18-471M	470 \pm 20%	471	6.39	0.148	0.201
AD5D18-681M	680 \pm 20%	681	9.28	0.124	0.167
AD5D18-821M	820 \pm 20%	821	12.35	0.113	0.145
AD5D18-102M	1000 \pm 20%	102	14.01	0.102	0.136

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. Inductance tolerance: M: \pm 20%

AD5D14 TYPE

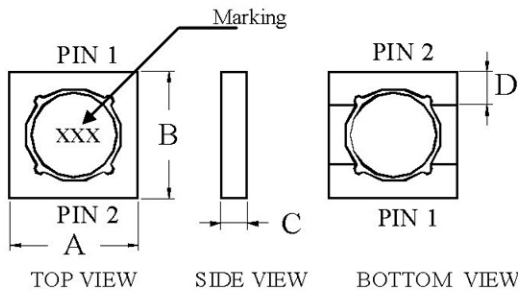
●FEATURE

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

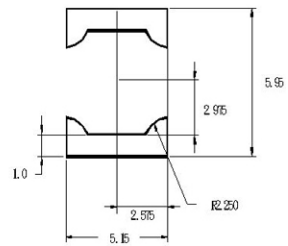
●Applications

1. LCD panels
2. Digital camera,PDA and others portable

●Shape and Dimension



●Schematics and Land Patterns(mm)



●Specification

Dimension in m/m

TYPE	A	D	E
AD5D14	5.20MAX	1.45MAX	1.50

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. Inductance tolerance: M: ±20%

Note6. Ordering Code: TYPE NAME: AD5D14

Main Inductance: 100 (10uH)

Tolerance : M (±20%)

Note7. This specification might be changed without notice due to under developing and improving.

Thank you for your understanding.

Part Number	L (uH)	Marking	DCR (Ω Typ.)	Isat (A)	Irms (A)
AD5D14-R58M	0.58 \pm 20%	R58	0.0220	4.84	3.52
AD5D14-R87M	0.87 \pm 20%	R87	0.0243	3.96	3.20
AD5D14-1R2M	1.2 \pm 20%	1R2	0.0344	3.35	2.70
AD5D14-1R5M	1.5 \pm 20%	1R5	0.0390	2.91	2.53
AD5D14-2R0M	2.0 \pm 20%	2R0	0.0445	2.56	2.37
AD5D14-2R5M	2.5 \pm 20%	2R5	0.0595	2.29	2.05
AD5D14-3R2M	3.2 \pm 20%	3R2	0.0663	2.08	1.94
AD5D14-4R5M	4.5 \pm 20%	4R5	0.0935	1.74	1.64
AD5D14-6R9M	6.9 \pm 20%	6R9	0.1363	1.41	1.35
AD5D14-8R8M	8.8 \pm 20%	8R8	0.1913	1.25	1.14
AD5D14-100M	10 \pm 20%	100	0.2058	1.18	1.10
AD5D14-150M	15 \pm 20%	150	0.2609	0.969	0.98
AD5D14-220M	22 \pm 20%	220	0.3853	0.793	0.806
AD5D14-330M	33 \pm 20%	330	0.5852	0.651	0.654
AD5D14-470M	47 \pm 20%	470	0.9055	0.538	0.525
AD5D14-680M	68 \pm 20%	680	1.11	0.449	0.474
AD5D14-820M	82 \pm 20%	820	1.50	0.407	0.408
AD5D14-101M	100 \pm 20%	101	1.68	0.373	0.386
AD5D14-151M	150 \pm 20%	151	2.52	0.301	0.315
AD5D14-221M	220 \pm 20%	221	3.77	0.249	0.258
AD5D14-331M	330 \pm 20%	331	5.92	0.203	0.206
AD5D14-471M	470 \pm 20%	471	8.34	0.171	0.173
AD5D14-681M	680 \pm 20%	681	10.3	0.142	0.156
AD5D14-821M	820 \pm 20%	821	13.9	0.129	0.134
AD5D14-102M	1000 \pm 20%	102	15.8	0.117	0.126

AD5D20 TYPE

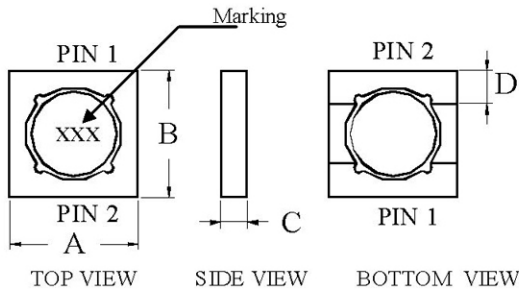
●FEATURE

1. Low profile and small size(Height=2.00MAX)
2. Low DC resistance
3. Magnetic Shielding type

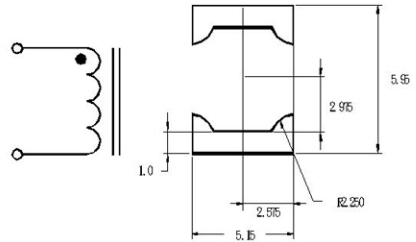
●Applications

1. Digital camera,PDA and others portable

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=5.20m/m MAX ; B=5.20m/m MAX ; C=2.00m/m MAX ; MARKING= Inductance value

●Specification

Part Number	L (uH)	Marking	DCR (ΩTyp.)	Isat (A)	Irms (A)
AD5D20-R47M	0.47±20%	R47	0.0200	4.00	3.59
AD5D20-1R2M	1.2±20%	1R2	0.0275	2.55	3.07
AD5D20-1R5M	1.5±20%	1R5	0.0312	2.15	2.88
AD5D20-2R2M	2.2±20%	2R2	0.0429	1.87	2.45
AD5D20-3R3M	3.3±20%	3R3	0.0547	1.47	2.17
AD5D20-4R7M	4.7±20%	4R7	0.0612	1.33	2.05
AD5D20-6R2M	6.2±20%	6R2	0.0720	1.12	1.89
AD5D20-8R2M	8.2±20%	8R2	0.1000	0.966	1.61
AD5D20-100M	10±20%	100	0.1100	1.000	1.53
AD5D20-150M	15±20%	150	0.1655	0.718	1.25
AD5D20-220M	22±20%	220	0.2053	0.596	1.12
AD5D20-330M	33±20%	330	0.3100	0.491	0.913
AD5D20-470M	47±20%	470	0.4650	0.406	0.745
AD5D20-680M	68±20%	680	0.6947	0.337	0.610
AD5D20-820M	82±20%	820	0.7785	0.308	0.576
AD5D20-101M	100±20%	101	1.06	0.283	0.495

Part Number	L (uH)	Marking	DCR (Ω Typ.)	Isat (A)	Irms (A)
AD5D20-151M	150 \pm 20%	151	1.37	0.228	0.435
AD5D20-221M	220 \pm 20%	221	2.04	0.188	0.356
AD5D20-331M	330 \pm 20%	331	2.99	0.155	0.294
AD5D20-471M	470 \pm 20%	471	3.74	0.129	0.263
AD5D20-681M	680 \pm 20%	681	5.56	0.107	0.216
AD5D20-821M	820 \pm 20%	821	6.22	0.098	0.204
AD5D20-102M	1000 \pm 20%	102	8.73	0.088	0.172

Note1. Measurement frequency of Inductance value : at 1MHz

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: 1000 Pieces/reel

AD5D12 TYPE

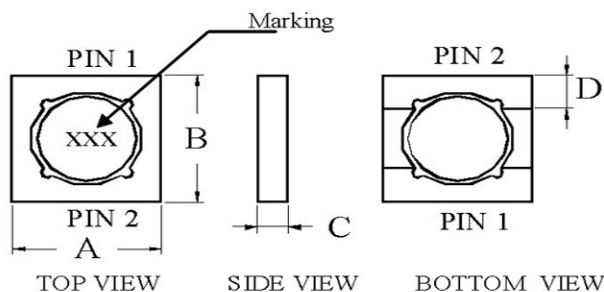
● FEATURE

1. Low profile and small size(outside dimension:5.00mm)
2. Low DC resistance
3. Magnetic Shielding type

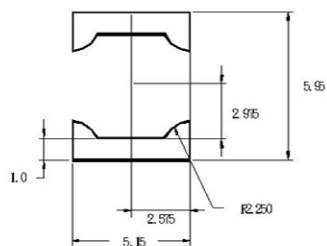
● Applications

1. LCD panels
2. Digital camera,PDA and others portable

● Shape and Dimension



● Schematics and Land Patterns(mm)



● Specification

Dimension in mm

TYPE	A=B	D	D
AD5D12	5.30MAX	1.20MAX	2.00 REF.

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. Inductance tolerance: M: ±20%

Note6. Ordering Code: TYPE NAME: AD5D□□

Main Inductance: 100 (10uH)

Tolerance : M (±20%)

Note7. This specification might be changed without notice due to under developing and improving.

Thank you for your understanding.

Part Number	L (uH)	Marking	DCR (Ω Typ.)	Isat (A)	Irms (A)
AD5D12-R47M	0.47 \pm 20%	R47	0.0246	3.86	3.19
AD5D12-1R2M	1.20 \pm 20%	1R2	0.0366	2.45	2.62
AD5D12-1R5M	1.50 \pm 20%	1R5	0.0521	2.08	2.19
AD5D12-2R2M	2.20 \pm 20%	2R2	0.0747	1.80	1.83
AD5D12-3R3M	3.30 \pm 20%	3R3	0.1043	1.42	1.55
AD5D12-4R7M	4.70 \pm 20%	4R7	0.1177	1.29	1.46
AD5D12-6R2M	6.20 \pm 20%	6R2	0.1699	1.08	1.21
AD5D12-6R8M	6.80 \pm 20%	6R8	0.1900	0.98	1.15
AD5D12-8R2M	8.20 \pm 20%	8R2	0.2399	0.931	1.02
AD5D12-100M	10 \pm 20%	100	0.2844	0.818	0.938
AD5D12-120M	12 \pm 20%	120	0.3750	0.750	0.850
AD5D12-150M	15 \pm 20%	150	0.4089	0.692	0.782
AD5D12-220M	22 \pm 20%	220	0.6338	0.574	0.628
AD5D12-330M	33 \pm 20%	330	0.9289	0.474	0.519
AD5D12-470M	47 \pm 20%	470	1.37	0.391	0.428
AD5D12-680M	68 \pm 20%	680	2.16	0.325	0.341
AD5D12-820M	82 \pm 20%	820	2.36	0.297	0.326
AD5D12-101M	100 \pm 20%	101	2.64	0.273	0.308
AD5D12-151M	150 \pm 20%	151	3.96	0.220	0.251
AD5D12-221M	220 \pm 20%	221	4.76	0.181	0.229
AD5D12-331M	330 \pm 20%	331	7.25	0.148	0.186
AD5D12-471M	470 \pm 20%	471	8.95	0.126	0.167
AD5D12-681M	680 \pm 20%	681	11.30	0.104	0.149
AD5D12-821M	820 \pm 20%	821	14.93	0.095	0.129
AD5D12-102M	1000 \pm 20%	102	17.20	0.086	0.121

AD5D25 TYPE

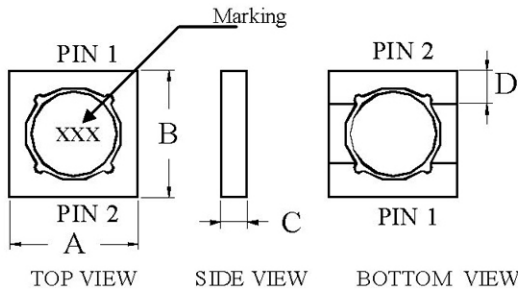
●FEATURE

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

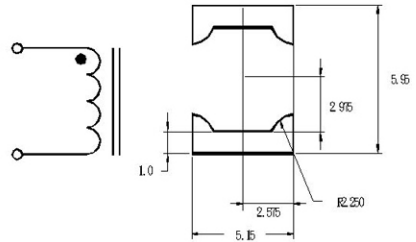
●Applications

1. Digital camera,PDA and others portable

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=5.20m/m MAX ; B=5.20m/m MAX ; C=2.50m/m MAX ; MARKING= Inductance value

●Specification

Part Number	L (uH)	Marking	DCR (ΩTyp.)	Isat (A)	Irms (A)
AD5D25-R47M	0.47±20%	R47	0.0177	6.00	3.88
AD5D25-R82M	0.82±20%	R82	0.0208	4.67	3.58
AD5D25-1R2M	1.2±20%	1R2	0.0240	3.81	3.33
AD5D25-1R5M	1.5±20%	1R5	0.0274	3.23	3.12
AD5D25-2R2M	2.2±20%	2R2	0.0311	2.80	2.93
AD5D25-3R3M	3.3±20%	3R3	0.0384	2.21	2.64
AD5D25-4R7M	4.7±20%	4R7	0.0467	1.83	2.39
AD5D25-6R8M	6.8±20%	6R8	0.0556	1.56	2.19
AD5D25-8R2M	8.2±20%	8R2	0.0724	1.45	1.92
AD5D25-100M	10±20%	100	0.0824	1.27	1.80
AD5D25-150M	15±20%	150	0.0956	1.08	1.67
AD5D25-220M	22±20%	220	0.1478	0.857	1.34
AD5D25-330M	33±20%	330	0.2149	0.711	1.11
AD5D25-470M	47±20%	470	0.3156	0.592	0.919
AD5D25-680M	68±20%	680	0.4850	0.482	0.741
AD5D25-820M	82±20%	820	0.5242	0.441	0.713

Part Number	L (uH)	Marking	DCR (Ω Typ.)	Isat (A)	Irms (A)
AD5D25-101M	100 \pm 20%	101	0.5937	0.398	0.670
AD5D25-151M	150 \pm 20%	151	0.8723	0.328	0.553
AD5D25-221M	220 \pm 20%	221	1.34	0.268	0.446
AD5D25-331M	330 \pm 20%	331	2.07	0.219	0.359
AD5D25-471M	470 \pm 20%	471	3.10	0.184	0.293
AD5D25-681M	680 \pm 20%	681	3.88	0.154	0.262
AD5D25-821M	820 \pm 20%	821	5.04	0.139	0.230
AD5D25-102M	1000 \pm 20%	102	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

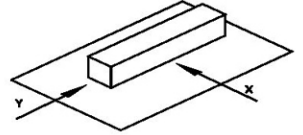
Note3. Isat: DC current at which the inductance drops 30% from its value without current

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

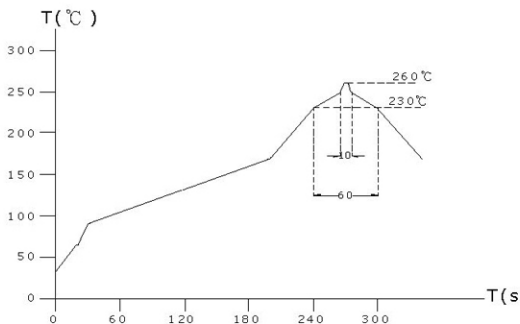
Note5. Packaging: Taping ; Quantity: 750 Pieces/reel

GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO $+85^{\circ}\text{C}$ (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has 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 $100\text{M}\Omega$ 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 $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ ($-25\sim +80^{\circ}\text{C}$).
7. Humidity characteristics (Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in $90\sim 95\%$ 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 ($10\sim 55\sim 10$ Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s^2 (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 environment: Storage condition: Temperature Range: $10^{\circ}\text{C} \sim 35^{\circ}\text{C}$ (Generally: $21^{\circ}\text{C} \sim 31^{\circ}\text{C}$) , Humidity Range: $50\% \sim 80\% \text{RH}$ (Generally: $65\% \sim 75\%$) ; Transportation condition: Temperature Range: $-35^{\circ}\text{C} \sim 85^{\circ}\text{C}$, Humidity Range: $50\% \sim 95\% \text{RH}$
12. Use components within 6 months. If 6 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test



Lead-free the recommended reflow condition

