

## Data Sheet

**Customer:**

**Product:** SMD Power Inductor – SDIA Series

**Sizes.:** 0310/0312/0315/0410/0412/0415/0418/0420/0430/0520/  
0528/0540/0610/ 0612/0620/0628/0645/0840

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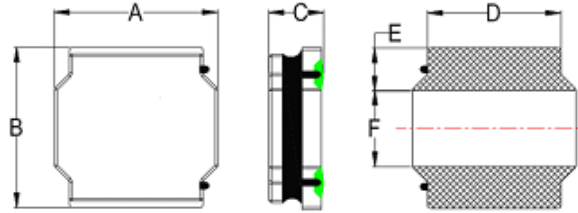
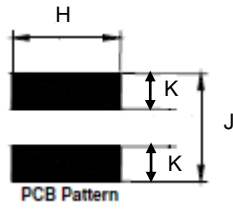
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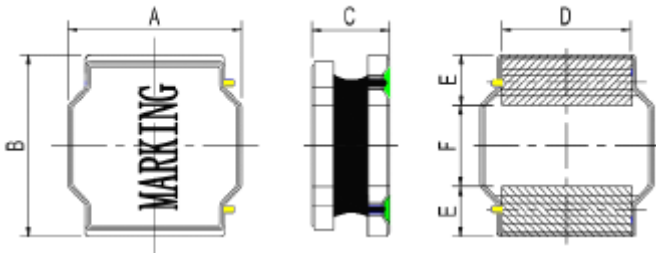
**SMD Power Inductor**



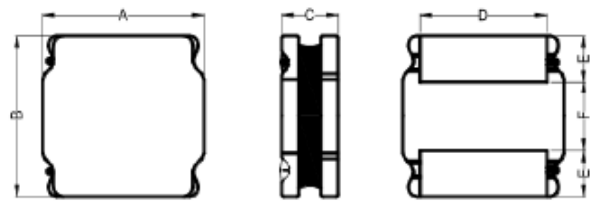
SDIA0310 / 0312



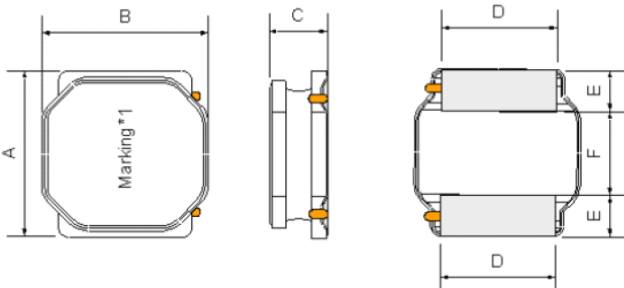
SDIA0418 / 0420 / 0520



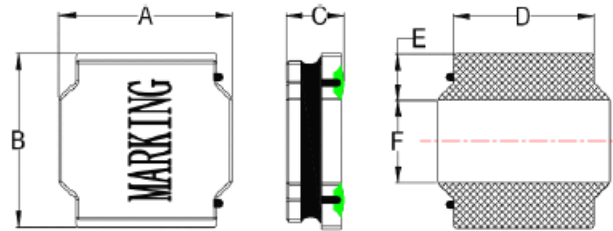
SDIA0315



SDIA0415 / 0540 / 0645 / 0528



SDIA0410 / 0412 / 0430 / 0610 / 0612 / 0620 / 0628 / 0840



**Dimensions**

Unit: mm

Type	A	B	C	D	E	F	H	J	K
SDIA0310	3.0±0.2	3.0±0.2	1.0 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0312	3.0±0.2	3.0±0.2	1.2 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0315	3.0±0.2	3.0±0.2	1.5 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0410	4.0±0.2	4.0±0.2	1.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0412	4.0±0.2	4.0±0.2	1.2 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0415	4.0±0.2	4.0±0.2	1.65 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0418	4.0±0.2	4.0±0.2	1.85 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0420	4.0±0.2	4.0±0.2	2.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0430	4.0±0.2	4.0±0.2	3.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0520	5.0±0.2	5.0±0.2	2.0 max	4.0±0.2	1.25±0.2	2.5±0.2	4.7	5.0	1.5
SDIA0528	5.0±0.2	5.0±0.2	2.8 max	4.0±0.2	1.25±0.2	2.5±0.2	4.7	5.0	1.5
SDIA0540	5.0±0.2	5.0±0.2	4.0 max	4.0±0.2	1.25±0.2	2.5±0.2	4.7	5.0	1.5
SDIA0610	6.0±0.3	6.0±0.3	1.0 max	4.9±0.2	1.55±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0612	6.0±0.3	6.0±0.3	1.2 max	4.9±0.2	1.55±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0620	6.0±0.3	6.0±0.3	2.0 max	4.9±0.2	1.55±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0628	6.0±0.3	6.0±0.3	2.8 max	4.9±0.2	1.7±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0645	6.0±0.3	6.0±0.3	4.5 max	4.9±0.2	1.55±0.2	2.9±0.3	5.7	6.3	1.6
SDIA0840	8.0±0.3	8.0±0.3	4.2 max	6.3±0.3	2.0±0.3	4.0±0.3	7.5	8.2	2.2

**SMD Power Inductor**

**■ Features**

- Small and Low profile inductor
- It corresponds to high current
- Shield structure magnetically
- Strong structure against a shock-proof

**■ Applications**

- LCD Display etc.
- For Small DC to DC Converters
- PDA.

**■ Characteristics**

- Rated DC Current : The current when the inductance becomes 30% lower than its initial value.
- Operating temperature range: -40~125°C

**■ Inductance and rated current ranges**

-SDIA0310	1.0~47μH	1.40~0.22A
-SDIA0312	1.5~47μH	1.87~0.27A
-SDIA0315	1.0~47μH	2.10~0.32A
-SDIA0410	1.0~22μH	2.00~0.45A
-SDIA0412	1.0~22μH	2.61~0.46A
-SDIA0415	1.0~22μH	2.50~0.68A
-SDIA0418	1.0~100μH	4.00~0.40A
-SDIA0420	1.0~47μH	4.78~0.74A
-SDIA0430	1.0~100μH	5.26~0.60A
-SDIA0520	1.0~47μH	4.33~0.81A
-SDIA0528	2.2~47μH	5.50~1.00A
-SDIA0540	1.0~100μH	7.35~0.75A
-SDIA0610	1.5~22μH	2.40~0.65A
-SDIA0612	3.3~22μH	1.80~0.76A
-SDIA0620	1.0~47μH	4.30~1.00A
-SDIA0628	1.0~100μH	6.70~0.65A
-SDIA0645	2.2~220μH	6.00~0.80A
-SDIA0840	2.2~680μH	7.10~0.30A

- Test equipment:  
L: HP4284A LCR meter  
DCR: Milli-ohm meter
- Electrical specifications at 25°C

**■ Product Identification**

SDIA	0312	M	T	470
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0310: 3.0x1.0 0312: 3.0x1.2 0315: 3.0x1.5 0410: 4.0x1.0 0412: 4.0x1.2 0415: 4.0x1.65 0418: 4.0x1.85 0420: 4.0x2.0 0430: 4.0x3.0 0520: 5.0x2.0 0528: 5.0x2.8 0540: 5.0x4.0 0610: 6.0x1.0 0612: 6.0x1.2 0620: 6.0x2.0 0628: 6.0x2.8 0645: 6.0x4.5 0840: 8.0x4.2	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

**SMD Power Inductor**

**■Electrical Characteristics**

SDIA0310 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0310□T1R0	1.0	N	100KHz, 0.25V	0.065	1.40
SDIA0310□T1R5	1.5	N	100KHz, 0.25V	0.080	1.27
SDIA0310□T2R2	2.2	N	100KHz, 0.25V	0.110	1.15
SDIA0310□T3R3	3.3	N	100KHz, 0.25V	0.145	0.97
SDIA0310□T4R7	4.7	M, N	100KHz, 0.25V	0.225	0.75
SDIA0310□T6R8	6.8	M, N	100KHz, 0.25V	0.305	0.55
SDIA0310□T100	10	M, N	1KHz, 0.25V	0.400	0.55
SDIA0310□T150	15	M, N	1KHz, 0.25V	0.610	0.42
SDIA0310□T220	22	M, N	1KHz, 0.25V	0.930	0.35
SDIA0310□T330	33	M, N	1KHz, 0.25V	1.550	0.29
SDIA0310□T470	47	M, N	1KHz, 0.25V	1.950	0.22

SDIA0312 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0312□T1R0	1.0	N	100KHz, 0.25V	0.040	1.87
SDIA0312□T1R5	1.5	N	100KHz, 0.25V	0.045	1.62
SDIA0312□T2R2	2.2	N	100KHz, 0.25V	0.075	1.20
SDIA0312□T3R3	3.3	M, N	100KHz, 0.25V	0.100	1.05
SDIA0312□T4R7	4.7	M, N	100KHz, 0.25V	0.120	0.90
SDIA0312□T6R8	6.8	M, N	100KHz, 0.25V	0.190	0.75
SDIA0312□T100	10	M, N	1KHz, 0.25V	0.265	0.60
SDIA0312□T150	15	M, N	1KHz, 0.25V	0.360	0.45
SDIA0312□T220	22	M, N	1KHz, 0.25V	0.645	0.42
SDIA0312□T330	33	M, N	1KHz, 0.25V	0.875	0.36
SDIA0312□T470	47	M, N	1KHz, 0.25V	1.450	0.27

SDIA0315 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0315□T1R0	1.0	N	100KHz, 0.25V	0.037	2.10
SDIA0315□T1R5	1.5	N	100KHz, 0.25V	0.050	1.80
SDIA0315□T2R2	2.2	M, N	100KHz, 0.25V	0.060	1.60
SDIA0315□T3R3	3.3	M, N	100KHz, 0.25V	0.080	1.32
SDIA0315□T4R7	4.7	M, N	100KHz, 0.25V	0.125	1.10
SDIA0315□T6R8	6.8	M, N	100KHz, 0.25V	0.200	0.87
SDIA0315□T100	10	M, N	1KHz, 0.25V	0.250	0.72
SDIA0315□T100-2	10	M	100KHz, 0.25V	0.230	0.72
SDIA0315□T150	15	M, N	1KHz, 0.25V	0.350	0.65
SDIA0315□T220	22	M, N	1KHz, 0.25V	0.460	0.52
SDIA0315□T330	33	M, N	1KHz, 0.25V	0.780	0.42
SDIA0315□T470	47	M, N	1KHz, 0.25V	1.200	0.32

Note: SDIA0315□T100-2 The current when the inductance becomes 35% lower than its initial value.

**SMD Power Inductor**

**Electrical Characteristics**

SDIA0410 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0410□T1R0	1.0	N	100KHz, 0.25V	0.056	2.00
SDIA0410□T1R5	1.5	N	100KHz, 0.25V	0.070	1.68
SDIA0410□T2R2	2.2	M, N	100KHz, 0.25V	0.085	1.20
SDIA0410□T3R3	3.3	M, N	100KHz, 0.25V	0.100	1.10
SDIA0410□T4R7	4.7	M, N	100KHz, 0.25V	0.140	0.95
SDIA0410□T6R8	6.8	M, N	100KHz, 0.25V	0.200	0.80
SDIA0410□T100	10	M, N	1KHz, 0.25V	0.300	0.62
SDIA0410□T220	22	M, N	1KHz, 0.25V	0.570	0.45

SDIA0412 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0412□T1R0	1.0	N	100KHz, 0.25V	0.050	2.61
SDIA0412□T1R5	1.5	N	100KHz, 0.25V	0.065	2.10
SDIA0412□T2R2	2.2	N	100KHz, 0.25V	0.080	1.76
SDIA0412□T3R3	3.3	N	100KHz, 0.25V	0.110	1.72
SDIA0412□T4R7	4.7	N	100KHz, 0.25V	0.125	1.15
SDIA0412□T6R8	6.8	M, N	100KHz, 0.25V	0.198	0.85
SDIA0412□T100	10	M, N	1KHz, 0.25V	0.265	0.80
SDIA0412□T150	15	M, N	1KHz, 0.25V	0.340	0.56
SDIA0412□T220	22	M, N	1KHz, 0.25V	0.587	0.46
SDIA0412□T470-1	47	M	100KHz, 1V	1.104±20%	0.30

SDIA0415 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0415□T1R0	1.0	N	100KHz, 0.25V	0.035	2.50
SDIA0415□T1R5	1.5	N	100KHz, 0.25V	0.040	2.20
SDIA0415□T2R2	2.2	M, N	100KHz, 0.25V	0.053	2.00
SDIA0415□T3R3	3.3	M, N	100KHz, 0.25V	0.075	1.80
SDIA0415□T4R7	4.7	M, N	100KHz, 0.25V	0.100	1.35
SDIA0415□T6R8	6.8	M, N	100KHz, 0.25V	0.135	1.20
SDIA0415□T100	10	M, N	1KHz, 0.25V	0.200	1.00
SDIA0415□T150	15	M, N	1KHz, 0.25V	0.300	0.85
SDIA0415□T220	22	M, N	1KHz, 0.25V	0.400	0.68

SDIA0418 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0418□T1R0	1.0	N	100KHz, 0.25V	0.023	4.00
SDIA0418□T1R5	1.5	N	100KHz, 0.25V	0.033	3.35
SDIA0418□T2R2	2.2	M, N	100KHz, 0.25V	0.042	3.00
SDIA0418□T3R3	3.3	M, N	100KHz, 0.25V	0.070	2.45
SDIA0418□T4R7	4.7	M, N	100KHz, 0.25V	0.090	2.00
SDIA0418□T5R6	5.6	M, N	100KHz, 0.25V	0.103	1.60
SDIA0418□T6R8	6.8	M, N	100KHz, 0.25V	0.124	1.60
SDIA0418□T100	10	M, N	1KHz, 0.25V	0.200	1.30
SDIA0418□T150	15	M, N	1KHz, 0.25V	0.268	1.10
SDIA0418□T220	22	M, N	1KHz, 0.25V	0.390	0.80
SDIA0418□T330	33	M, N	1KHz, 0.25V	0.560	0.65
SDIA0418□T470	47	M, N	1KHz, 0.25V	0.850	0.60
SDIA0418□T680	68	M, N	1KHz, 0.25V	1.000	0.52
SDIA0418□T101	100	M, N	1KHz, 0.25V	1.500	0.40
SDIA0418□T101-1	100	M	100KHz, 1V	1.750	0.40

**Note:** SDIA0418□T101-1 The current when the inductance becomes 35% lower than its initial value.

**SMD Power Inductor**

**Electrical Characteristics**

SDIA0420 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0420□T1R0	1.0	N	100KHz, 0.25V	0.029	4.78
SDIA0420□T1R5	1.5	N	100KHz, 0.25V	0.035	4.45
SDIA0420□T2R2	2.2	M, N	100KHz, 0.25V	0.040	3.40
SDIA0420□T3R3	3.3	M, N	100KHz, 0.25V	0.070	3.20
SDIA0420□T4R7	4.7	M, N	100KHz, 0.25V	0.075	2.35
SDIA0420□T6R8	6.8	M, N	100KHz, 0.25V	0.125	2.20
SDIA0420□T100	10	M, N	1KHz, 0.25V	0.165	1.60
SDIA0420□T150	15	M, N	1KHz, 0.25V	0.230	1.35
SDIA0420□T220	22	M, N	1KHz, 0.25V	0.350	1.05
SDIA0420□T330	33	M, N	1KHz, 0.25V	0.550	0.85
SDIA0420□T470	47	M, N	1KHz, 0.25V	0.710	0.74

SDIA0430 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0430□T1R0	1.0	N	100KHz, 0.25V	0.014	5.26
SDIA0430□T1R5	1.5	N	100KHz, 0.25V	0.020	4.84
SDIA0430□T2R2	2.2	N	100KHz, 0.25V	0.030	4.50
SDIA0430□T3R3	3.3	N	100KHz, 0.25V	0.040	3.30
SDIA0430□T4R7	4.7	N	100KHz, 0.25V	0.060	2.90
SDIA0430□T6R8	6.8	M, N	100KHz, 0.25V	0.090	2.75
SDIA0430□T100	10	M, N	1KHz, 0.25V	0.100	1.95
SDIA0430□T150	15	M, N	1KHz, 0.25V	0.190	1.65
SDIA0430□T220	22	M, N	1KHz, 0.25V	0.225	1.30
SDIA0430□T330	33	M, N	1KHz, 0.25V	0.330	1.10
SDIA0430□T470	47	M, N	1KHz, 0.25V	0.445	0.95
SDIA0430□T680	68	M, N	1KHz, 0.25V	0.868	0.72
SDIA0430□T820	82	M, N	1KHz, 0.25V	1.060	0.66
SDIA0430□T101	100	M, N	1KHz, 0.25V	1.150	0.60

SDIA0520 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0520□T1R0	1.0	N	100KHz, 0.25V	0.020	4.33
SDIA0520□T1R5	1.5	N	100KHz, 0.25V	0.026	4.10
SDIA0520□T2R2	2.2	N	100KHz, 0.25V	0.038	3.85
SDIA0520□T3R3	3.3	N	100KHz, 0.25V	0.046	3.25
SDIA0520□T4R7	4.7	M, N	100KHz, 0.25V	0.065	2.40
SDIA0520□T6R8	6.8	M, N	100KHz, 0.25V	0.092	2.10
SDIA0520□T8R2	8.2	M, N	100KHz, 0.25V	0.100	1.90
SDIA0520□T100	10	M, N	1KHz, 0.25V	0.125	1.80
SDIA0520□T150	15	M, N	1KHz, 0.25V	0.180	1.44
SDIA0520□T220	22	M, N	1KHz, 0.25V	0.250	1.18
SDIA0520□T330	33	M, N	1KHz, 0.25V	0.370	0.97
SDIA0520□T470	47	M, N	1KHz, 0.25V	0.560	0.81

SDIA0528 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0528□T2R2	2.2	N	100KHz, 0.25V	0.035	5.50
SDIA0528□T3R3	3.3	N	100KHz, 0.25V	0.045	4.50
SDIA0528□T4R7	4.7	N	100KHz, 0.25V	0.030	3.80
SDIA0528□T6R8	6.8	M, N	100KHz, 0.25V	0.070	3.20
SDIA0528□T100	10	M, N	1KHz, 0.25V	0.100	2.80
SDIA0528□T220	22	M, N	1KHz, 0.25V	0.200	1.80
SDIA0528□T330	33	M, N	1KHz, 0.25V	0.300	1.40
SDIA0528□T470	47	M, N	1KHz, 0.25V	0.460	1.00

**SMD Power Inductor**

**■Electrical Characteristics**

SDIA0540 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0540□T1R0	1.0	N	100KHz, 0.25V	0.012	7.35
SDIA0540□T1R5	1.5	N	100KHz, 0.25V	0.015	6.40
SDIA0540□T2R2	2.2	M, N	100KHz, 0.25V	0.019	5.00
SDIA0540□T3R3	3.3	M, N	100KHz, 0.25V	0.024	4.00
SDIA0540□T4R7	4.7	M, N	100KHz, 0.25V	0.030	3.50
SDIA0540□T6R8	6.8	M, N	100KHz, 0.25V	0.043	2.90
SDIA0540□T100	10	M, N	1KHz, 0.25V	0.064	2.35
SDIA0540□T150	15	M, N	1KHz, 0.25V	0.086	2.00
SDIA0540□T220	22	M, N	1KHz, 0.25V	0.129	1.60
SDIA0540□T330	33	M, N	1KHz, 0.25V	0.188	1.30
SDIA0540□T470	47	M, N	1KHz, 0.25V	0.272	1.10
SDIA0540□T680	68	M, N	1KHz, 0.25V	0.400	0.90
SDIA0540□T101	100	M, N	1KHz, 0.25V	0.560	0.75
SDIA0540□T101-1	100	M, N	100KHz, 0.25V	0.560	0.75

**Note: SDIA0540□T101-1** The current when the inductance becomes 35% lower than its initial value.

SDIA 0610 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0610□T1R5	1.5	N	100KHz, 0.25V	0.090	2.40
SDIA0610□T2R2	2.2	N	100KHz, 0.25V	0.110	1.90
SDIA0610□T3R3	3.3	N	100KHz, 0.25V	0.135	1.60
SDIA0610□T4R7	4.7	N	100KHz, 0.25V	0.165	1.30
SDIA0610□T6R8	6.8	M, N	100KHz, 0.25V	0.220	1.20
SDIA0610□T100	10	M, N	1KHz, 0.25V	0.270	1.00
SDIA0610□T220	22	M, N	1KHz, 0.25V	0.580	0.65

SDIA0612 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0612□T3R3	3.3	N	100KHz, 0.25V	0.105	1.80
SDIA0612□T4R7	4.7	N	100KHz, 0.25V	0.125	1.60
SDIA0612□T6R8	6.8	M, N	100KHz, 0.25V	0.165	1.30
SDIA0612□T100	10	M, N	1KHz, 0.25V	0.200	1.00
SDIA0612□T150	15	M, N	1KHz, 0.25V	0.295	0.80
SDIA0612□T220	22	M, N	1KHz, 0.25V	0.469	0.76

SDIA0620 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	IDC (A) max.
SDIA0620□T1R0	1.0	N	100KHz, 0.25V	0.020	4.30
SDIA0620□T1R5	1.5	N	100KHz, 0.25V	0.025	4.25-
SDIA0620□T2R2	2.2	N	100KHz, 0.25V	0.035	3.75
SDIA0620□T3R3	3.3	N	100KHz, 0.25V	0.045	3.15
SDIA0620□T4R7	4.7	N	100KHz, 0.25V	0.058	3.00
SDIA0620□T5R6	5.6	M, N	100KHz, 0.25V	0.070	2.40
SDIA0620□T6R8	6.8	M, N	100KHz, 0.25V	0.085	2.20
SDIA0620□T100	10	M, N	1KHz, 0.25V	0.120	1.75
SDIA0620□T150	15	M, N	1KHz, 0.25V	0.160	1.50
SDIA0620□T220	22	M, N	1KHz, 0.25V	0.240	1.25
SDIA0620□T330	33	M, N	1KHz, 0.25V	0.400	1.10
SDIA0620□T470	47	M, N	1KHz, 0.25V	0.500	1.00

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SDIA0628 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0628□T1R0	1.0	N	100KHz, 0.25V	0.012	6.70
SDIA0628□T1R5	1.5	N	100KHz, 0.25V	0.016	6.00
SDIA0628□T2R2	2.2	N	100KHz, 0.25V	0.020	5.10
SDIA0628□T3R3	3.3	N	100KHz, 0.25V	0.025	3.63
SDIA0628□T4R7	4.7	N	100KHz, 0.25V	0.033	3.00
SDIA0628□T6R8	6.8	M, N	100KHz, 0.25V	0.056	2.60
SDIA0628□T6R8-1	6.8	M	1KHz, 0.25V	0.047	2.60
SDIA0628□T100	10	M, N	1KHz, 0.25V	0.078	2.05
SDIA0628□T150	15	M, N	1KHz, 0.25V	0.125	1.75
SDIA0628□T180	18	M, N	1KHz, 0.25V	0.130	1.55
SDIA0628□T220	22	M, N	1KHz, 0.25V	0.140	1.45
SDIA0628□T270	27	M, N	1KHz, 0.25V	0.180	1.40
SDIA0628□T330	33	M, N	1KHz, 0.25V	0.220	1.36
SDIA0628□T470	47	M, N	1KHz, 0.25V	0.280	1.15
SDIA0628□T680	68	M, N	1KHz, 0.25V	0.450	0.95
SDIA0628□T820	82	M, N	1KHz, 0.25V	0.550	0.80
SDIA0628□T101	100	M, N	1KHz, 0.25V	0.670	0.65

SDIA0645 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	IDC (A) max.
SDIA0645□T2R2	2.2	M, N	100KHz, 0.25V	0.021	6.00
SDIA0645□T3R3	3.3	M, N	100KHz, 0.25V	0.023	5.20
SDIA0645□T4R7	4.7	M, N	100KHz, 0.25V	0.026	4.00
SDIA0645□T4R7-1	4.7	M, N	100KHz, 0.25V	0.025	5.20
SDIA0645□T6R8	6.8	M, N	100KHz, 0.25V	0.040	3.80
SDIA0645□T100	10	M, N	1KHz, 0.25V	0.046	3.10
SDIA0645□T150	15	M, N	1KHz, 0.25V	0.070	2.50
SDIA0645□T220	22	M, N	1KHz, 0.25V	0.107	2.00
SDIA0645□T330	33	M, N	1KHz, 0.25V	0.141	1.65
SDIA0645□T470	47	M, N	1KHz, 0.25V	0.211	1.40
SDIA0645□T560	56	M, N	1KHz, 0.25V	0.221	1.30
SDIA0645□T680	68	M, N	1KHz, 0.25V	0.304	1.10
SDIA0645□T101	100	M, N	1KHz, 0.25V	0.466	0.90
SDIA0645□T151	150	M, N	1KHz, 0.25V	0.600	0.60
SDIA0645□T151-1	150	M	100KHz, 1V	0.580	0.90
SDIA0645□T221	220	M, N	1KHz, 0.25V	1.100	0.80

Note: SDIA0645□T4R7-1/SDIA0645□T151-1 The current when the inductance becomes 35% lower than its initial value.



**■Electrical Characteristics**

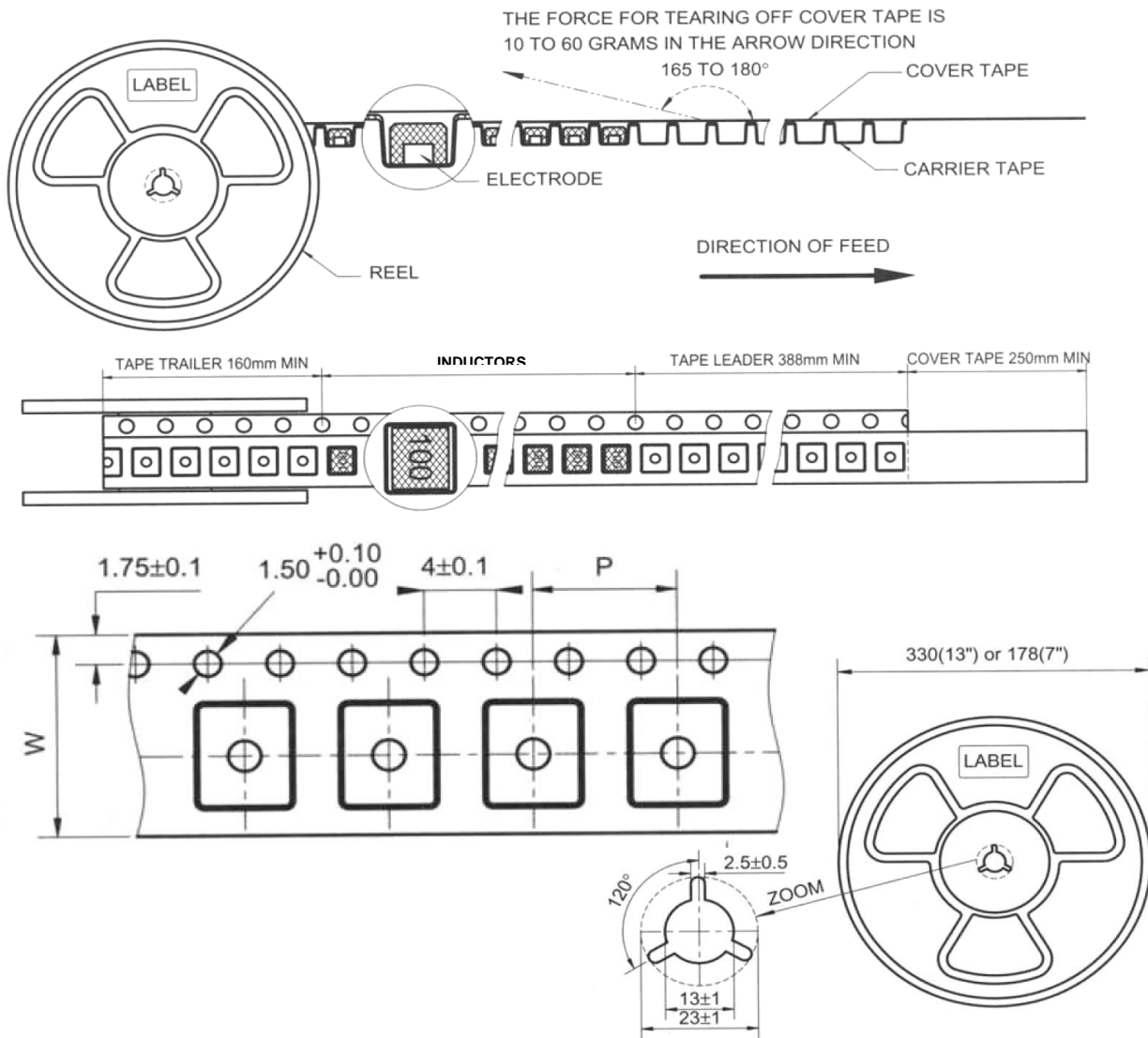
SDIA0840 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) $\pm$ 30%	IDC (A) max.
SDIA0840□T1R4	1.4	N	100KHz, 0.25V	0.007	10.00
SDIA0840□T2R2	2.2	M, N	100KHz, 0.25V	0.012	8.10
SDIA0840□T3R3	3.3	M, N	100KHz, 0.25V	0.017	6.50
SDIA0840□T4R7	4.7	M, N	100KHz, 0.25V	0.020	5.90
SDIA0840□T5R6	5.6	M, N	100KHz, 0.25V	0.024	5.50
SDIA0840□T6R8	6.8	M, N	100KHz, 0.25V	0.028	4.55
SDIA0840□T100	10	M, N	1KHz, 0.25V	0.034	3.80
SDIA0840□T100-1	10	M	100KHz, 1V	0.034	3.80
SDIA0840□T150	15	M, N	1KHz, 0.25V	0.056	2.95
SDIA0840□T220	22	M, N	1KHz, 0.25V	0.074	2.40
SDIA0840□T330	33	M, N	1KHz, 0.25V	0.100	2.05
SDIA0840□T330-1	33	M	100KHz, 0.5V	0.100	2.05
SDIA0840□T390	39	M, N	1KHz, 0.25V	0.107	1.95
SDIA0840□T470	47	M, N	1KHz, 0.25V	0.158	1.75
SDIA0840□T560	56	M, N	1KHz, 0.25V	0.148	1.55
SDIA0840□T680	68	M, N	1KHz, 0.25V	0.196	1.45
SDIA0840□T101	100	M, N	1KHz, 0.25V	0.295	1.15
SDIA0840□T151	150	M, N	1KHz, 0.25V	0.470	1.10
SDIA0840□T221	220	M, N	1KHz, 0.25V	0.660	0.85
SDIA0840□T221-1	220	M	1KHz, 0.25V	0.599	0.80
SDIA0840□T221-2	220	M	1KHz, 0.25V	0.660	1.00
SDIA0840□T331	330	M, N	1KHz, 0.25V	0.970	0.68
SDIA0840□T471	470	M, N	1KHz, 0.25V	1.400	0.60
SDIA0840□T681	680	M, N	1KHz, 0.25V	2.200	0.30

**Note:** SDIA0840□T100-1 The current when the inductance becomes 35% lower than its initial value.

**SMD Power Inductor**

**■Tape and Reel specifications**



Unit: mm

Type	Tape size		Parts Per Reel	
	W	P	7"	13"
SDIA0310	8	4	1000	-
SDIA0312	8	4	2000	-
SDIA0315	8	4	2000	-
SDIA0410	12	8	-	5000
SDIA0412	12	8	-	4500
SDIA0415	12	8	-	3000
SDIA0418	12	8	-	3000
SDIA0420	12	8	-	3000
SDIA0430	12	8	-	2500
SDIA0520	12	8	-	2500
SDIA0528	12	8	-	2000
SDIA0540	12	8	-	1500
SDIA0610	12	8	-	2500
SDIA0612	12	8	-	2000
SDIA0620	12	8	-	2000
SDIA0628	16	8	-	1500
SDIA0645	16	8	-	1000
SDIA0840	16	12	-	1000

**SMD Power Inductor**

**■ SMT Power Inductor Environmental Specifications**

General

Items	Specifications
Shelf Storage conditions	Temperature range: 15~28°C; Humidity: <80% relative humidity. Recommended product should be used within 12 months from the time of delivery.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -25±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours Tested after 1hour at room temperature.
Thermal shock test		First -25°C 30minutes then 25°C 10 minutes last 85°C 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

Mechanical test

Test Items	Specifications	Test Conditions / Test Methods
Solderability test	Terminal area must have 90% minimum solder coverage.	Product with Lead-free terminal: Dip pads in flux then dip in solder pot at 245±5°C for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130~150°C. Immersing to 260±5°C for 10 seconds.
Vibration test	No case deformation or change in appearance.	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance	$\Delta L/L \leq 10\%$	Drop down with 981m/s <sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

The condition of reflow (recommendation):

