Data Sheet

Customer:	
Product:	**SMD Power Inductor – SDIA-G Series**
Sizes.:	**02512/0315/0418/0420/0430/0520/0540/0620/0628/ 0645/0840**
Issued Date:	**4-Mar-22**
Edition:	**REV.A5**

Pb RoHS Compliant

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4-Mar-22	4-Mar-22	4-Mar-22	4-Mar-22	
Mandy Chen	*Ben Chang*	*Ben Chang*		

SMD Power Inductor



Features

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

Applications

- Our products are designed and promoted for use in general electronic devices such as audio-equipment, office automation equipment, household appliance and information service.

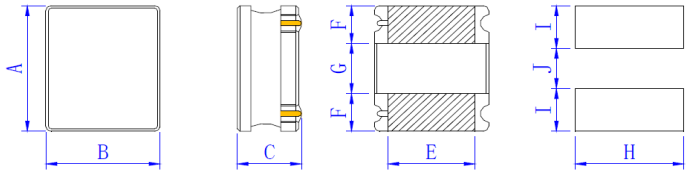
Characteristics

- Isat : The DC current at which the inductance drops approximate 30% from its value without current, Load current time within 1 s.
- Irms : The DC current is inductor surface temperature to rise by 40℃ (Reference ambient temperature 20℃).
- Operating temperature range: -40～125°C

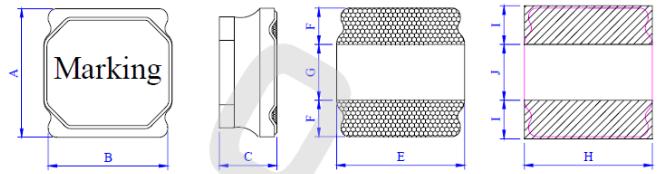
Inductance and rated current ranges

- SDIA02512-G 0.24～10μH 5.00～0.79A
- SDIA0315-G 0.22～47μH 5.00～0.35A
- SDIA0418-G 0.24～100μH 9.00～0.40A
- SDIA0420-G 1.00～100μH 4.78～0.48A
- SDIA0430-G 1.00～150μH 5.26～0.50A
- SDIA0520-G 1.00～100μH 4.40～0.53A
- SDIA0540-G 1.00～1000μH 7.35～0.21A
- SDIA0620-G 1.00～100μH 4.15～0.50A
- SDIA0628-G 1.00～470μH 5.75～0.28A
- SDIA0645-G 1.00～1000μH 8.50～0.30A
- SDIA0840-G 6.80～1500μH 4.00～0.32A
- Test equipment:
  L: HP4263B\IM3532-50 or equivalent
  RDC: HP4263B\RM3545 or equivalent
  Isat: Microtest 6379 & 6220 or equirvalent
  Irms: Microtest 6379 & 6220 or equivalent
- Electrical specifications at 20°C

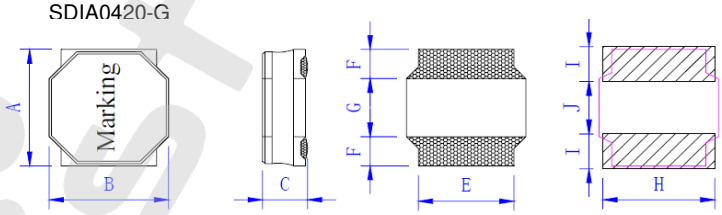
SDIA02512-G



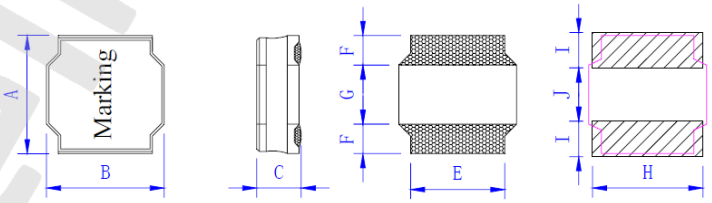
SDIA0315-G



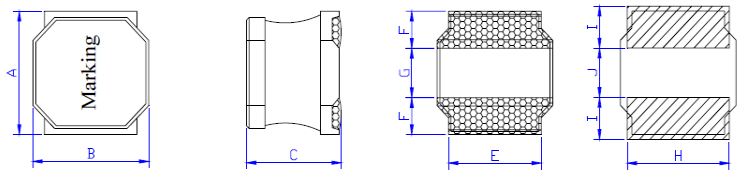
SDIA0420-G



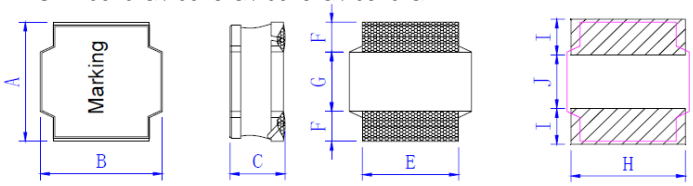
SDIA0418-G / 0430-G / 0520-G



SDIA0540-G



SDIA0620-G / 0628-G / 0645-G / 0840-G



Dimensions

Type	A mm	B mm	C mm	E mm	F mm	G mm	H mm	I mm	J mm
SDIA02512-G	2.5±0.2	2.1±0.2	1.25 max	1.6 typ	0.85 typ	0.80 typ	2.1 typ	0.85 typ	0.80 typ
SDIA0315-G	3.0±0.2	3.0±0.2	1.5 max	2.8 typ	0.85 typ	1.3 typ	3.0 typ	0.9 typ	1.3 typ
SDIA0418-G	4.0±0.2	4.0±0.2	1.8 max	2.60±0.3	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0420-G	4.0±0.2	4.0±0.2	2.0 max	3.4 typ	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0430-G	4.0±0.2	4.0±0.2	3.0 max	3.4 typ	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0520-G	5.0±0.2	5.0±0.2	2.1 max	4.0 typ	1.2 typ	2.6 typ	4.4 typ	1.6 typ	2.4 typ
SDIA0540-G	5.0±0.2	5.0±0.2	4.2 max	4.0 typ	1.5 typ	2.0 typ	4.4 typ	1.6 typ	2.4 typ
SDIA0620-G	6.0±0.2	6.0±0.2	2.0 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0628-G	6.0±0.2	6.0±0.2	2.8 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0645-G	6.0±0.2	6.0±0.2	4.5 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0840-G	8.0±0.2	8.0±0.2	4.0±0.3	6.4 typ	2.3 typ	4.0 typ	7.5 typ	2.4 typ	3.6 typ

SMD Power Inductor

■Product Identification

SDIA	0315	M	T	470	-G
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance	Special
	02512: 2.5x1.25 0315: 3.0x1.5 0418: 4.0x1.8 0420: 4.0x2.0 0430: 4.0x3.0 0520: 5.0x2.1 0540: 5.0x4.2 0620: 6.0x2.0 0628: 6.0x2.8 0645: 6.0x4.5 0840: 8.0x4.0	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH	

■Electrical Characteristics

SDIA02512-G Type (□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω)		Isat (A)	Irms (A)
				max	typ		
SDIA02512□TR24-G	0.24	N	1MHz, 1V	0.034	0.028	5.00	-
SDIA02512□TR33-G	0.33	N	1MHz, 1V	0.049	0.035	4.00	3.35
SDIA02512□TR47-G	0.47	N	1MHz, 1V	0.061	0.042	3.82	2.15
SDIA02512□TR68-G	0.68	N	1MHz, 1V	0.074	0.051	3.28	1.96
SDIA02512□T1R0-G	1.0	M	1MHz, 1V	0.090	0.073	2.59	1.93
SDIA02512□T1R5-G	1.5	M	1MHz, 1V	0.147	0.129	2.24	1.40
SDIA02512□T2R2-G	2.2	M	1MHz, 1V	0.216	0.165	1.85	1.15
SDIA02512□T3R3-G	3.3	M	1MHz, 1V	0.264	0.200	1.61	1.04
SDIA02512□T4R7-G	4.7	M	1MHz, 1V	0.377	0.273	1.12	0.84
SDIA02512□T5R6-G	5.6	M	1MHz, 1V	0.538	0.380	1.11	0.73
SDIA02512□T6R8-G	6.8	M	1MHz, 1V	0.581	0.405	0.98	0.69
SDIA02512□T8R2-G	8.2	M	1MHz, 1V	0.658	0.563	0.98	0.65
SDIA02512□T100-G	10	M	1MHz, 1V	0.690	0.658	0.79	0.62

■Electrical Characteristics

SDIA0315-G Type (□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω)	Isat (A)	Irms (A)	Marking Code
SDIA0315□TR22-G	0.22	N	100KHz, 0.5V	0.016±30%	5.00	3.50	T
SDIA0315□TR47-G	0.47	N	100KHz, 0.5V	0.020±30%	3.90	2.60	S
SDIA0315□TR68-G	0.68	N	100KHz, 0.5V	0.025±30%	3.00	2.45	U
SDIA0315□T1R0-G	1.0	N	100KHz, 0.5V	0.030±20%	2.32	2.35	A
SDIA0315□T1R5-G	1.5	N	100KHz, 0.5V	0.040±20%	2.30	1.70	B
SDIA0315□T2R2-G	2.2	N	100KHz, 0.5V	0.060±20%	1.60	1.60	C
SDIA0315□T2R7-G	2.7	N	100KHz, 0.5V	0.075±20%	1.52	1.43	D
SDIA0315□T3R3-G	3.3	N	100KHz, 0.5V	0.080±20%	1.32	1.36	E
SDIA0315□T4R7-G	4.7	M	100KHz, 0.5V	0.120±20%	1.10	1.09	H
SDIA0315□T5R6-G	5.6	M	100KHz, 0.5V	0.140±20%	0.95	0.86	G
SDIA0315□T6R2-G	6.2	M	100KHz, 0.5V	0.160±20%	1.00	0.86	F
SDIA0315□T6R8-G	6.8	M	100KHz, 0.5V	0.160±20%	0.87	0.85	I
SDIA0315□T8R2-G	8.2	M	100KHz, 0.5V	0.220±20%	0.80	0.80	J
SDIA0315□T100-G	10	M	100KHz, 0.5V	0.230±20%	0.72	0.77	K
SDIA0315□T150-G	15	M	100KHz, 0.5V	0.360±20%	0.66	0.65	L
SDIA0315□T180-G	18	M	100KHz, 0.5V	0.430±20%	0.56	0.59	M
SDIA0315□T220-G	22	M	100KHz, 0.5V	0.520±20%	0.52	0.57	N
SDIA0315□T330-G	33	M	100KHz, 0.5V	0.840±20%	0.44	0.43	O
SDIA0315□T390-G	39	M	100KHz, 0.5V	1.100±20%	0.40	0.40	P
SDIA0315□T470-G	47	M	100KHz, 0.5V	1.340±20%	0.35	0.35	No Marking

SDIA0418-G Type (□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0418□TR24-G	0.24	N	100KHz, 0.5V	0.014	9.00	5.00
SDIA0418□TR47-G	0.47	N	100KHz, 0.5V	0.021	6.50	4.00
SDIA0418□TR68-G	0.68	N	100KHz, 0.5V	0.020	4.90	3.30
SDIA0418□T1R0-G	1.0	N	100KHz, 0.5V	0.030	4.30	2.00
SDIA0418□T1R5-G	1.5	N	100KHz, 0.5V	0.040	3.35	1.80
SDIA0418□T2R2-G	2.2	M	100KHz, 0.5V	0.045	2.70	1.65
SDIA0418□T2R7-G	2.7	M	100KHz, 0.5V	0.058	2.30	1.45
SDIA0418□T3R3-G	3.3	M	100KHz, 0.5V	0.070	2.45	1.23
SDIA0418□T4R7-G	4.7	M	100KHz, 0.5V	0.090	1.70	1.20
SDIA0418□T5R6-G	5.6	M	100KHz, 0.5V	0.107	1.60	1.50
SDIA0418□T6R8-G	6.8	M	100KHz, 0.5V	0.110	1.45	1.06
SDIA0418□T8R2-G	8.2	M	100KHz, 0.5V	0.160	1.35	0.90
SDIA0418□T100-G	10	M	100KHz, 0.5V	0.180	1.30	0.84
SDIA0418□T120-G	12	M	100KHz, 0.5V	0.190	1.10	1.00
SDIA0418□T150-G	15	M	100KHz, 0.5V	0.250	0.94	0.65
SDIA0418□T220-G	22	M	100KHz, 0.5V	0.360	0.80	0.59
SDIA0418□T330-G	33	M	100KHz, 0.5V	0.530	0.65	0.49
SDIA0418□T390-G	39	M	100KHz, 0.5V	0.670	0.60	0.45
SDIA0418□T470-G	47	M	100KHz, 0.5V	0.650	0.57	0.42
SDIA0418□T560-G	56	M	100KHz, 0.5V	0.900	0.51	0.38
SDIA0418□T680-G	68	M	100KHz, 0.5V	1.000	0.47	0.32
SDIA0418□T820-G	82	M	100KHz, 0.5V	1.300	0.43	0.28
SDIA0418□T101-G	100	M	100KHz, 0.5V	1.500	0.40	0.25

■Electrical Characteristics

SDIA 0420-G Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0420□T1R0-G	1.0	M	100KHz, 0.5V	0.029	4.78	2.15
SDIA0420□T1R5-G	1.5	M	100KHz, 0.5V	0.035	4.45	1.98
SDIA0420□T2R2-G	2.2	M	100KHz, 0.5V	0.040	3.40	1.85
SDIA0420□T3R3-G	3.3	M	100KHz, 0.5V	0.070	3.20	1.40
SDIA0420□T4R7-G	4.7	M	100KHz, 0.5V	0.075	2.35	1.34
SDIA0420□T5R1-G	5.1	M	100KHz, 0.5V	0.085	2.30	1.27
SDIA0420□T5R6-G	5.6	M	100KHz, 0.5V	0.090	2.20	1.22
SDIA0420□T6R8-G	6.8	M	100KHz, 0.5V	0.125	2.20	1.04
SDIA0420□T8R2-G	8.2	M	100KHz, 0.5V	0.155	1.75	1.04
SDIA0420□T100-G	10	M	100KHz, 0.5V	0.165	1.60	0.90
SDIA0420□T150-G	15	M	100KHz, 0.5V	0.230	1.35	0.77
SDIA0420□T220-G	22	M	100KHz, 0.5V	0.350	1.05	0.62
SDIA0420□T270-G	27	M	100KHz, 0.5V	0.545	1.02	0.50
SDIA0420□T330-G	33	M	100KHz, 0.5V	0.550	0.85	0.49
SDIA0420□T390-G	39	M	100KHz, 0.5V	0.650	0.82	0.46
SDIA0420□T470-G	47	M	100KHz, 0.5V	0.710	0.74	0.44
SDIA0420□T560-G	56	M	100KHz, 0.5V	0.800	0.66	0.41
SDIA0420□T680-G	68	M	100KHz, 0.5V	1.060	0.61	0.36
SDIA0420□T820-G	82	M	100KHz, 0.5V	1.170	0.50	0.34
SDIA0420□T101-G	100	M	100KHz, 0.5V	1.550	0.48	0.31

SDIA0430-G Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0430□T1R0-G	1.0	N	100KHz, 0.5V	0.016	5.26	4.15
SDIA0430□T1R5-G	1.5	N	100KHz, 0.5V	0.020	4.84	3.34
SDIA0430□T2R2-G	2.2	N	100KHz, 0.5V	0.030	4.90	3.00
SDIA0430□T3R3-G	3.3	N	100KHz, 0.5V	0.040	3.30	2.40
SDIA0430□T3R9-G	3.9	M	100KHz, 0.5V	0.057	3.00	2.10
SDIA0430□T4R7-G	4.7	M	100KHz, 0.5V	0.060	2.90	2.00
SDIA0430□T6R8-G	6.8	M	100KHz, 0.5V	0.090	2.20	1.60
SDIA0430□T8R2-G	8.2	M	100KHz, 0.5V	0.090	2.10	1.60
SDIA0430□T100-G	10	M	100KHz, 0.5V	0.100	1.95	1.50
SDIA0430□T150-G	15	M	100KHz, 0.5V	0.190	1.65	1.11
SDIA0430□T220-G	22	M	100KHz, 0.5V	0.250	1.30	1.00
SDIA0430□T330-G	33	M	100KHz, 0.5V	0.330	1.10	0.84
SDIA0430□T470-G	47	M	100KHz, 0.5V	0.600	0.95	0.72
SDIA0430□T680-G	68	M	100KHz, 0.5V	0.868	0.72	0.52
SDIA0430□T820-G	82	M	100KHz, 0.5V	1.060	0.66	0.47
SDIA0430□T101-G	100	M	100KHz, 0.5V	1.150	0.60	0.45
SDIA0430□T121-G	120	M	100KHz, 0.5V	1.350	0.57	0.55
SDIA0430□T151-G	150	M	100KHz, 0.5V	2.350	0.50	0.35

■Electrical Characteristics

SDIA 0520-G Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0520□T1R0-G	1.0	N	100KHz, 0.5V	0.020	4.40	3.80
SDIA0520□T1R5-G	1.5	N	100KHz, 0.5V	0.028	4.10	3.20
SDIA0520□T2R2-G	2.2	N	100KHz, 0.5V	0.033	3.20	2.90
SDIA0520□T3R3-G	3.3	N	100KHz, 0.5V	0.043	2.55	2.50
SDIA0520□T4R7-G	4.7	N	100KHz, 0.5V	0.058	2.50	2.20
SDIA0520□T5R6-G	5.6	N	100KHz, 0.5V	0.068	2.30	2.05
SDIA0520□T6R8-G	6.8	M	100KHz, 0.5V	0.075	2.05	1.80
SDIA0520□T8R2-G	8.2	M	100KHz, 0.5V	0.096	1.85	1.65
SDIA0520□T100-G	10	M	100KHz, 0.5V	0.120	1.70	1.55
SDIA0520□T150-G	15	M	100KHz, 0.5V	0.165	1.35	1.25
SDIA0520□T180-G	18	M	100KHz, 0.5V	0.200	1.25	1.15
SDIA0520□T220-G	22	M	100KHz, 0.5V	0.220	1.15	1.10
SDIA0520□T330-G	33	M	100KHz, 0.5V	0.350	0.92	0.90
SDIA0520□T390-G	39	M	100KHz, 0.5V	0.410	0.80	0.80
SDIA0520□T470-G	47	M	100KHz, 0.5V	0.520	0.77	0.77
SDIA0520□T560-G	56	M	100KHz, 0.5V	0.600	0.77	0.70
SDIA0520□T680-G	68	M	100KHz, 0.5V	0.680	0.65	0.64
SDIA0520□T820-G	82	M	100KHz, 0.5V	0.860	0.55	0.55
SDIA0520□T101-G	100	M	100KHz, 0.5V	1.100	0.53	0.53

■Electrical Characteristics

SDIA 0540-G Type(☐:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0540☐T1R0-G	1.0	N	100KHz, 0.5V	0.012	7.35	4.90
SDIA0540☐T1R5-G	1.5	N	100KHz, 0.5V	0.014	6.00	4.50
SDIA0540☐T1R8-G	1.8	N	100KHz, 0.5V	0.016	5.50	4.30
SDIA0540☐T2R2-G	2.2	N	100KHz, 0.5V	0.018	4.90	3.80
SDIA0540☐T3R3-G	3.3	N	100KHz, 0.5V	0.024	3.95	3.40
SDIA0540☐T4R7-G	4.7	N	100KHz, 0.5V	0.030	3.50	3.00
SDIA0540☐T5R6-G	5.6	N	100KHz, 0.5V	0.040	3.00	2.80
SDIA0540☐T6R8-G	6.8	M	100KHz, 0.5V	0.045	2.90	2.50
SDIA0540☐T8R2-G	8.2	M	100KHz, 0.5V	0.055	2.70	2.30
SDIA0540☐T100-G	10	M	100KHz, 0.5V	0.066	2.35	2.10
SDIA0540☐T150-G	15	M	100KHz, 0.5V	0.090	2.00	2.00
SDIA0540☐T220-G	22	M	100KHz, 0.5V	0.130	1.60	1.50
SDIA0540☐T330-G	33	M	100KHz, 0.5V	0.200	1.30	1.20
SDIA0540☐T390-G	39	M	100KHz, 0.5V	0.230	1.20	1.10
SDIA0540☐T470-G	47	M	100KHz, 0.5V	0.300	1.00	1.00
SDIA0540☐T560-G	56	M	100KHz, 0.5V	0.330	0.95	0.85
SDIA0540☐T680-G	68	M	100KHz, 0.5V	0.420	0.90	0.80
SDIA0540☐T820-G	82	M	100KHz, 0.5V	0.500	0.80	0.75
SDIA0540☐T101-G	100	M	1KHz, 0.5V	0.620	0.75	0.70
SDIA0540☐T151-G	150	M	1KHz, 0.5V	0.850	0.65	0.60
SDIA0540☐T181-G	180	M	1KHz, 0.5V	1.150	0.50	0.43
SDIA0540☐T221-G	220	M	1KHz, 0.5V	1.200	0.46	0.42
SDIA0540☐T331-G	330	M	1KHz, 0.5V	1.750	0.40	0.36
SDIA0540☐T391-G	390	M	1KHz, 0.5V	2.500	0.35	0.32
SDIA0540☐T471-G	470	M	1KHz, 0.5V	2.850	0.32	0.30
SDIA0540☐T561-G	560	M	1KHz, 0.5V	3.200	0.30	0.28
SDIA0540☐T681-G	680	M	1KHz, 0.5V	3.750	0.27	0.25
SDIA0540☐T821-G	820	M	1KHz, 0.5V	5.700	0.24	0.22
SDIA0540☐T102-G	1000	M	1KHz, 0.5V	6.500	0.21	0.19

SDIA 0620-G Type(☐:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0620☐T1R0-G	1.0	N	100KHz, 0.5V	0.020	4.15	3.50
SDIA0620☐T1R5-G	1.5	N	100KHz, 0.5V	0.022	4.00	3.20
SDIA0620☐T2R2-G	2.2	N	100KHz, 0.5V	0.028	3.75	2.75
SDIA0620☐T3R3-G	3.3	N	100KHz, 0.5V	0.035	3.15	2.60
SDIA0620☐T4R7-G	4.7	N	100KHz, 0.5V	0.058	3.00	2.00
SDIA0620☐T6R8-G	6.8	N	100KHz, 0.5V	0.079	2.20	1.80
SDIA0620☐T100-G	10	M	100KHz, 0.5V	0.105	1.75	1.40
SDIA0620☐T150-G	15	M	100KHz, 0.5V	0.145	1.20	1.20
SDIA0620☐T220-G	22	M	100KHz, 0.5V	0.204	1.05	1.00
SDIA0620☐T330-G	33	M	100KHz, 0.5V	0.300	0.95	0.84
SDIA0620☐T470-G	47	M	100KHz, 0.5V	0.430	0.70	0.65
SDIA0620☐T680-G	68	M	100KHz, 0.5V	0.660	0.62	0.60
SDIA0620☐T101-G	100	M	100KHz, 0.5V	1.200	0.50	0.45

■Electrical Characteristics

SDIA 0628-G Type(☐:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0628☐T1R0-G	1.0	N	100KHz, 0.5V	0.014	5.75	5.20
SDIA0628☐T1R5-G	1.5	N	100KHz, 0.5V	0.016	5.00	4.58
SDIA0628☐T2R2-G	2.2	N	100KHz, 0.5V	0.020	5.10	3.75
SDIA0628☐T3R3-G	3.3	N	100KHz, 0.5V	0.023	3.60	3.48
SDIA0628☐T3R9-G	3.9	N	100KHz, 0.5V	0.028	3.00	3.20
SDIA0628☐T4R7-G	4.7	N	100KHz, 0.5V	0.031	2.70	3.08
SDIA0628☐T6R8-G	6.8	N	100KHz, 0.5V	0.048	2.30	2.40
SDIA0628☐T8R2-G	8.2	N	100KHz, 0.5V	0.055	2.30	2.25
SDIA0628☐T100-G	10	M	100KHz, 0.5V	0.065	1.90	1.95
SDIA0628☐T150-G	15	M	100KHz, 0.5V	0.095	1.60	1.45
SDIA0628☐T220-G	22	M	100KHz, 0.5V	0.135	1.30	1.40
SDIA0628☐T270-G	27	M	100KHz, 0.5V	0.155	1.50	1.32
SDIA0628☐T330-G	33	M	100KHz, 0.5V	0.220	1.10	1.22
SDIA0628☐T390-G	39	M	100KHz, 0.5V	0.225	1.25	1.10
SDIA0628☐T470-G	47	M	100KHz, 0.5V	0.300	0.95	1.06
SDIA0628☐T680-G	68	M	100KHz, 0.5V	0.420	0.76	0.86
SDIA0628☐T820-G	82	M	100KHz, 0.5V	0.520	0.64	0.70
SDIA0628☐T101-G	100	M	100KHz, 0.5V	0.570	0.62	0.70
SDIA0628☐T151-G	150	M	100KHz, 0.5V	0.760	0.50	0.50
SDIA0628☐T221-G	220	M	100KHz, 0.5V	1.200	0.38	0.38
SDIA0628☐T331-G	330	M	100KHz, 0.5V	1.800	0.32	0.32
SDIA0628☐T471-G	470	M	100KHz, 0.5V	2.300	0.28	0.28

■Electrical Characteristics

SDIA 0645-G Type(☐:Tolerance):

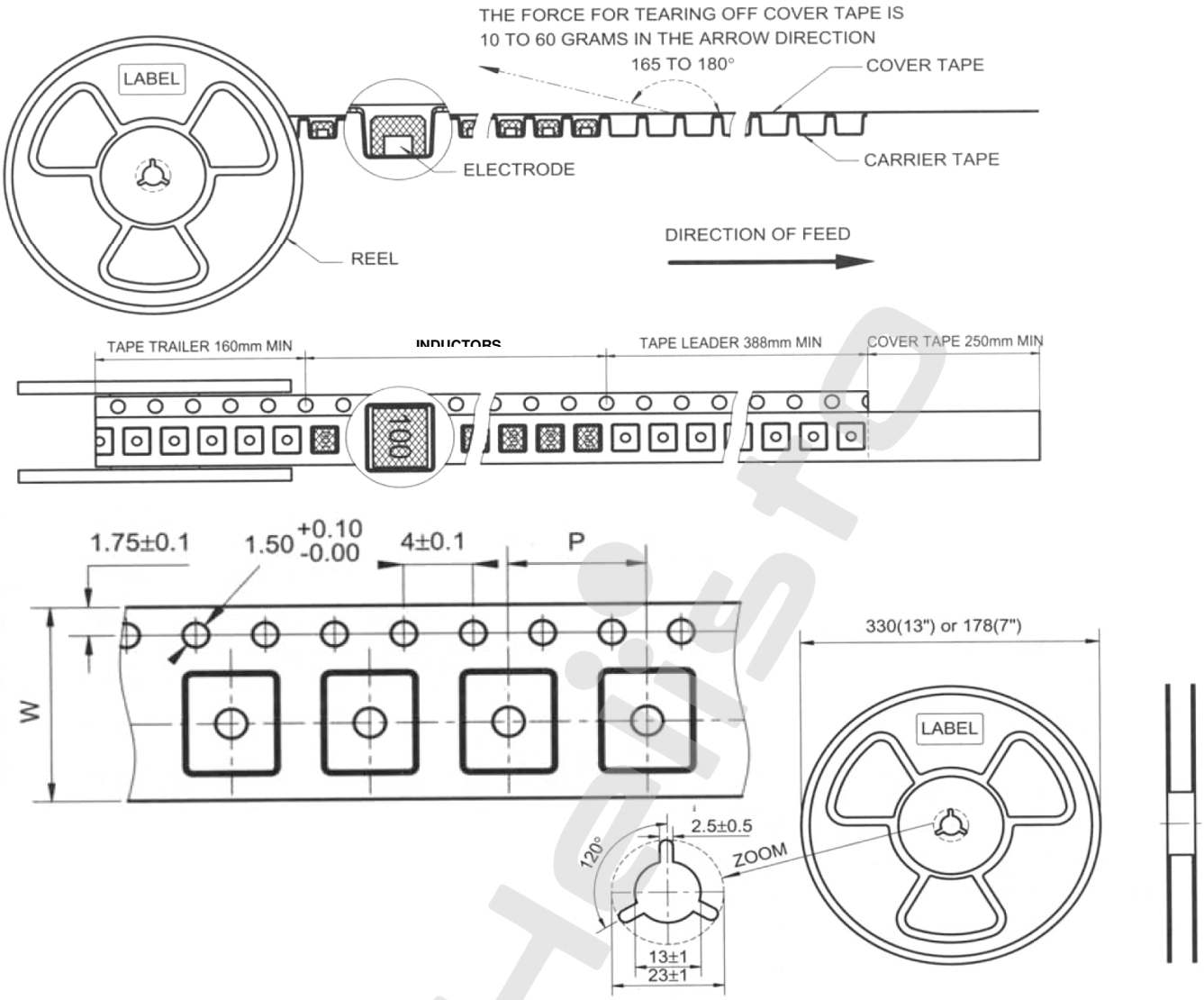
Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0645☐T1R0-G	1.0	N	100KHz, 0.5V	0.014	8.50	5.14
SDIA0645☐T1R3-G	1.3	N	100KHz, 0.5V	0.016	8.00	5.05
SDIA0645☐T1R5-G	1.5	N	100KHz, 0.5V	0.016	8.35	5.05
SDIA0645☐T1R8-G	1.8	N	100KHz, 0.5V	0.018	7.00	4.95
SDIA0645☐T2R2-G	2.2	N	100KHz, 0.5V	0.021	6.00	4.60
SDIA0645☐T3R0-G	3.0	N	100KHz, 0.5V	0.024	5.00	3.80
SDIA0645☐T3R3-G	3.3	N	100KHz, 0.5V	0.024	5.00	3.70
SDIA0645☐T3R9-G	3.9	M	100KHz, 0.5V	0.028	4.50	3.50
SDIA0645☐T4R7-G	4.7	M	100KHz, 0.5V	0.031	4.00	3.30
SDIA0645☐T5R6-G	5.6	M	100KHz, 0.5V	0.035	3.80	3.15
SDIA0645☐T6R3-G	6.3	M	100KHz, 0.5V	0.035	3.80	3.15
SDIA0645☐T6R8-G	6.8	M	100KHz, 0.5V	0.038	3.80	3.00
SDIA0645☐T8R2-G	8.2	M	100KHz, 0.5V	0.043	3.50	2.70
SDIA0645☐T100-G	10	M	100KHz, 0.5V	0.047	3.20	2.45
SDIA0645☐T120-G	12	M	100KHz, 0.5V	0.058	2.80	2.20
SDIA0645☐T150-G	15	M	100KHz, 0.5V	0.077	2.50	2.05
SDIA0645☐T220-G	22	M	100KHz, 0.5V	0.115	2.05	1.80
SDIA0645☐T330-G	33	M	100KHz, 0.5V	0.145	1.65	1.45
SDIA0645☐T390-G	39	M	100KHz, 0.5V	0.210	1.50	1.25
SDIA0645☐T470-G	47	M	100KHz, 0.5V	0.220	1.40	1.20
SDIA0645☐T560-G	56	M	100KHz, 0.5V	0.260	1.30	1.10
SDIA0645☐T680-G	68	M	100KHz, 0.5V	0.330	1.20	1.00
SDIA0645☐T820-G	82	M	100KHz, 0.5V	0.450	1.05	0.90
SDIA0645☐T101-G	100	M	100KHz, 0.5V	0.500	0.95	0.80
SDIA0645☐T121-G	120	M	100KHz, 0.5V	0.466	0.88	0.79
SDIA0645☐T151-G	150	M	100KHz, 0.5V	0.800	0.80	0.70
SDIA0645☐T181-G	180	M	100KHz, 0.5V	0.950	0.75	0.65
SDIA0645☐T221-G	220	M	100KHz, 0.5V	1.200	0.70	0.59
SDIA0645☐T331-G	330	M	100KHz, 0.5V	1.700	0.57	0.57
SDIA0645☐T471-G	470	M	100KHz, 0.5V	1.800	0.50	0.42
SDIA0645☐T681-G	680	M	100KHz, 0.5V	3.550	0.42	0.33
SDIA0645☐T102-G	1000	M	100KHz, 0.5V	4.550	0.30	0.20

■Electrical Characteristics

SDIA 0840-G Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0840□T6R8-G	6.8	M	100KHz, 0.5V	0.025	4.00	3.70
SDIA0840□T8R2-G	8.2	M	100KHz, 0.5V	0.028	4.20	3.45
SDIA0840□T100-G	10	M	100KHz, 0.5V	0.034	3.40	3.10
SDIA0840□T120-G	12	M	100KHz, 0.5V	0.041	3.50	2.80
SDIA0840□T150-G	15	M	100KHz, 0.5V	0.050	2.70	2.40
SDIA0840□T180-G	18	M	100KHz, 0.5V	0.066	2.70	2.30
SDIA0840□T220-G	22	M	100KHz, 0.5V	0.066	2.20	2.20
SDIA0840□T270-G	27	M	100KHz, 0.5V	0.083	2.00	2.00
SDIA0840□T330-G	33	M	100KHz, 0.5V	0.100	1.90	1.70
SDIA0840□T390-G	39	M	100KHz, 0.5V	0.120	1.70	1.60
SDIA0840□T470-G	47	M	100KHz, 0.5V	0.150	1.50	1.40
SDIA0840□T560-G	56	M	100KHz, 0.5V	0.180	1.55	1.45
SDIA0840□T680-G	68	M	100KHz, 0.5V	0.230	1.20	1.10
SDIA0840□T750-G	75	M	100KHz, 0.5V	0.211	1.35	1.20
SDIA0840□T800-G	80	M	100KHz, 0.5V	0.230	1.30	1.15
SDIA0840□T820-G	82	M	100KHz, 0.5V	0.225	1.30	1.20
SDIA0840□T101-G	100	M	100KHz, 0.5V	0.290	1.00	1.00
SDIA0840□T121-G	120	M	100KHz, 0.5V	0.334	1.05	0.95
SDIA0840□T151-G	150	M	100KHz, 0.5V	0.480	0.95	0.85
SDIA0840□T221-G	220	M	100KHz, 0.5V	0.660	0.85	0.80
SDIA0840□T331-G	330	M	100KHz, 0.5V	1.020	0.68	0.64
SDIA0840□T471-G	470	M	100KHz, 0.5V	1.500	0.60	0.60
SDIA0840□T681-G	680	M	100KHz, 0.5V	2.040	0.50	0.45
SDIA0840□T102-G	1000	M	100KHz, 0.5V	2.800	0.40	0.35
SDIA0840□T152-G	1500	M	100KHz, 0.5V	4.300	0.32	0.26

■Tape and Reel specifications



Unit: mm

Type	Tape size		Parts Per Reel	
	W	P	7″	13″
SDIA02512-G	8	4	3,000	-
SDIA0315-G	8	4	2,000	-
SDIA0418-G	12	8	-	3,000
SDIA0420-G	12	8	-	3,000
SDIA0430-G	12	8	-	2,000
SDIA0520-G	12	8	-	2,500
SDIA0540-G	12	8	-	2,000
SDIA0620-G	12	8	-	2,500
SDIA0628-G	16	8	-	2,000
SDIA0645-G	16	8	-	1,500
SDIA0840-G	16	12	-	1,000

■SMT Power Inductor Environmental Specifications

Test Items	Specifications	Test Conditions / Test Methods
Shelf Storage conditions	Temperature range: -10~+40℃(product with taping), -40~+85℃(body);Humidity: 30~70% RH. Recommended product should be used within 6 months from the time of delivery.	-
Insulation Resistance	≥100MΩ	100 V DC between inductor coil and core for 60 seconds
Solderability	95% or more of electrode area shall be coated by new solder.	Dip pads in flux and dip in solder pot (96.5Sn/3.0Ag/0.5Cu) at 245 ℃±5 ℃ for 5±1 seconds.
Resistance to Soldering Heat	No visible mechanical damage. Inductance change: Within ±10%	Dip pads in flux and dip in solder pot (96.5Sn/3.0Ag/0.5Cu) at 260℃±5 ℃ for 10±1 seconds
Adhesion of terminal electrode	Strong bond between the pad and the core, without come off PC board.	Inductors shall be subjected to 260 ℃ ±5 ℃ for 20 s±5 s Soldering in the base whit 0.3mm solder. And then aplomb electrode way plus tax 10 N for 10± 1s seconds
Temperature Characteristic	Inductance change *Pc-b,Pc-d*: Within ±20%	a : +20 ℃ (30~45) min → b: -40 ℃ (30~45) min → c: +20 ℃ (30~45) min → d: +125 ℃ (30~45) min → e: +20 ℃ (30~45) min $P_{c\text{-}b}=\frac{L_b-L_c}{L_c}\times 100\%$; $P_{c\text{-}d}=\frac{L_d-L_c}{L_c}\times 100\%$
Constant Damp Heat	No visible mechanical damage. Inductance change: Within ±10%	Temperature 60±2℃, 90~95% R.H. for 1000+24/0 hours Test within 48 hours after 2 hours of placement at room temperature.
High Temperature Load (Life Span)	No visible mechanical damage. Inductance change: within±10%	Temperature 85±2℃ ,Time 1000+24/0 hours , Apply a rated current. Test within 48 hours after 2 hours of placement at room temperature. Note: If the surface temperature of the part over 125℃ when the current is loaded, the current need to reduce until the surface temperature of the part less than 125℃.
Temperature Cycling	No visible mechanical damage. Inductance change: Within ±10%	The test sample shall be placed at -40±3℃ and 125±2℃ for 30±3 min, different temperature conversion time is 2~3 minutes. The temperature cycle shall be repeated 32 cycles. Test within 48 hours after 2 hours of placement at room temperature.
High Temperature	No visible mechanical damage. Inductance change: Within ±10%	Temperature 125±2℃, Time 1000+24/0hours. Test within 48 hours after 2 hours of placement at room temperature.
Low Temperature	No visible mechanical damage. Inductance change: Within ±10%	Temperature -40±2℃, Time 1000+24/0hours. Test within 48 hours after 2 hours of placement at room temperature.

The condition of reflow (recommendation):

