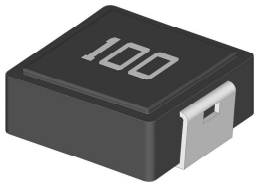
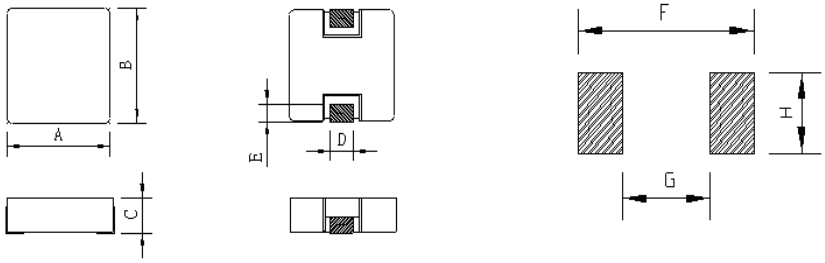
SMD Flat Wire Coils—SDB Series





■Features

- —Large current adaptable
- —Footprint compatible with most standard
- —Lower temperature rise at large current
- —Low profile, low DCR
- —Available on tape and reel for auto surface mounting

■Applications

- —Laptop / Desktop / Notebook Computers
- —Terminals / Portable Servers / Workstation
- —DC/DC Converter in Distributed Power Systems or VRM Applications
- —Thin Type On-board Power Supply Module for Exchanger

■Characteristics

- —Typical Saturation DC Current would cause Lo to drop approximately 20%. (Ta=25℃)
- —Typical Heat Rating DC Current would cause an approximately △T of 40℃
- —All test data is referred to 25℃ ambient

■Dimensions

Unit: mm

Type	A max.	B max.	C max.	D	E	F	G	H
SDB0630	6.8	7.5	3.0	3.0±0.3	1.6±0.3	8.4	3.7	3.5
SDB1040	10.4	11.5	4.0	3.0±0.5	2.2±0.5	13.6	5.4	4.1

■Inductance and rated current ranges

- —SDB0630 0.47μH～10μH @Saturation DC Current: 26～7A
- —SDB1040 0.22μH～3.3μH @Saturation DC Current: 50～18.6A
- —Test equipment:
  L: HP4284A LCR meter
  DCR: Milli-ohm meter
- —Electrical specifications at 25℃
- —Operating temperature rang: -55℃～+125℃

■Product Identification

SDB	0630	M	T	100
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0630: 6.8×3.0 1040: 10.4×4.0	M: ±20%	T: Tape and Reel	R47: 0.47μH 1R0: 1.0μH 100: 10μH

■Electrical Characteristics

SDB0630 Type

Codes	Inductance L0 @0A (uH)	Tolerance	Test Condition	DCR (mΩ)		Heat Rating Current	Saturation Current
				Typical	max.	IDC (A)	I sat (A)
						Typical	Typical
R47	0.47	M	100KHz, 0.1V	4.0	4.2	17.5	26.0
R68	0.68	M	100KHz, 0.1V	5.0	5.5	15.5	25.0
R82	0.82	M	100KHz, 0.1V	6.7	8.0	13.0	24.0
1R0	1.0	M	100KHz, 0.1V	9.0	10	11.0	22.0
1R5	1.5	M	100KHz, 0.1V	14	15	9.0	18.0
2R2	2.2	M	100KHz, 0.1V	18	20	8.0	14.0
3R3	3.3	M	100KHz, 0.1V	28	30	6.0	13.5
4R7	4.7	M	100KHz, 0.1V	37	40	5.5	10.0
6R8	6.8	M	100KHz, 0.1V	54	60	4.5	8.0
8R2	8.2	M	100KHz, 0.1V	64	68	4.0	7.5
100	10	M	100KHz, 0.1V	102	105	3.0	7.0

SDB1040 Type

Codes	Inductance L0 @0A (uH)	Tolerance	Test Condition	DCR (mΩ)		Heat Rating Current	Saturation Current
				Typical	max.	IDC (A)	I sat (A)
						Typical	Typical
R22	0.22	M	100KHz, 0.1V	1.1	1.5	32.0	50.0
R36	0.36	M	100KHz, 0.1V	1.5	1.7	31.5	50.0
R47	0.47	M	100KHz, 0.1V	1.5	1.9	27.5	49.0
R56	0.56	M	100KHz, 0.1V	1.9	2.3	27.5	49.0
R68	0.68	M	100KHz, 0.1V	2.0	2.5	23.0	40.0
R88	0.88	M	100KHz, 0.1V	2.7	3.0	20.0	38.0
1R0	1.0	M	100KHz, 0.1V	3.7	4.1	17.5	36.0
1R5	1.5	M	100KHz, 0.1V	5.3	6.0	15.0	27.5
1R8	1.8	M	100KHz, 0.1V	7.0	8.2	15.0	27.5
2R2	2.2	M	100KHz, 0.1V	8.2	9.0	12.0	25.6
3R3	3.3	M	100KHz, 0.1V	10.8	11.8	10.0	18.6