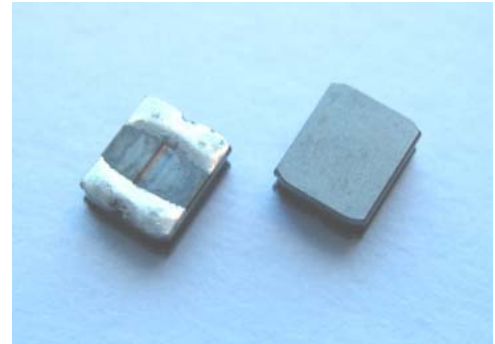


3. SDB Series (Shielded Type)

Applications

- Watches, Toys Camera, Electronic Thermometers.
- Portable communication equipment.
- DC/DC converters, etc.
- Power supply for VTRs.
- Other various electronic appliances.



Features

- Compact, low profile with low Rdc and large current.
- With magnetic shielded against radiation.
- Flat bottom surface allows reliable mounting onto the board.
- Available on tape and reel for auto surface mounting.

Inductance and Rated Current ranges

Part Series	Inductances range	Rated Current range
* SDB2512	0.24~10 μ H	4.100~1.000A (Irms) ; 6.800~1.300A (Isat)
* SDB2512S	0.24~33 μ H	4.100~0.470A (Irms) ; 5.500~0.450A (Isat)

(Dimension data (Refer to Fig. 1))

Part Series	Inductances range	Rated Current range
* SDB3010	1.0~47 μ H	1.525~0.270A (Irms) ; 1.700~0.240A (Isat)
* SDB3015	1.0~100 μ H	2.100~0.250A (Irms) ; 2.100~0.230A (Isat)

(Dimension data (Refer to Fig. 2))

Part Series	Inductances range	Rated Current range
* SDB4018R	0.82~220 μ H	4.000~0.280A (Irms) ; 4.200~0.300A (Isat)
* SDB4025R	1.00~220 μ H	3.000~0.200A (Irms) ; 3.000~0.200A (Isat)
* SDB5020R	1.00~33 μ H	3.600~0.900A (Irms) ; 4.000~0.800A (Isat)
* SDB5040R	1.50~47 μ H	3.600~0.900A (Irms) ; 6.000~1.100A (Isat)
* SDB6028R	0.90~100 μ H	4.600~0.660A (Irms) ; 6.700~0.650A (Isat)
* SDB6045R	1.00~220 μ H	6.500~0.500A (Irms) ; 9.400~0.600A (Isat)

(Dimension data (Refer to Fig. 3))

Part Series	Inductances range	Rated Current range
* SDB5D28	1.00~100 μ H	2.900~0.400A
* SDB1003	0.56~1000 μ H	6.200~0.230A
* SDB1004	0.56~1000 μ H	10.000~0.320A

(Dimension data (Refer to Fig. 4))

3. SDB Series (Shielded Type)

Characteristics

Operating temperature range:

-40 ~+125 : (including self-temperature rise)

SDB2512, SDB2512S, SDB3010, SDB3015,

-25 ~+120 : (including self generated heat)

SDB4018R, SDB4025R, SDB5020R

-40 ~+125 :

SDB5040R, SDB6028R, SDB6045R, SDB5D28, SDB1003, SDB1004

Rated DC current (I_{rms}): Base on the temperature rise T=40 Typ.

Rated DC current (I_{sat}): Base on the L/L_{0A} = 30% Typ. (SDB5D28, SDB1003, SDB1004 (Base on the L/L_{0A} = 35% Typ.))

Test equipment:

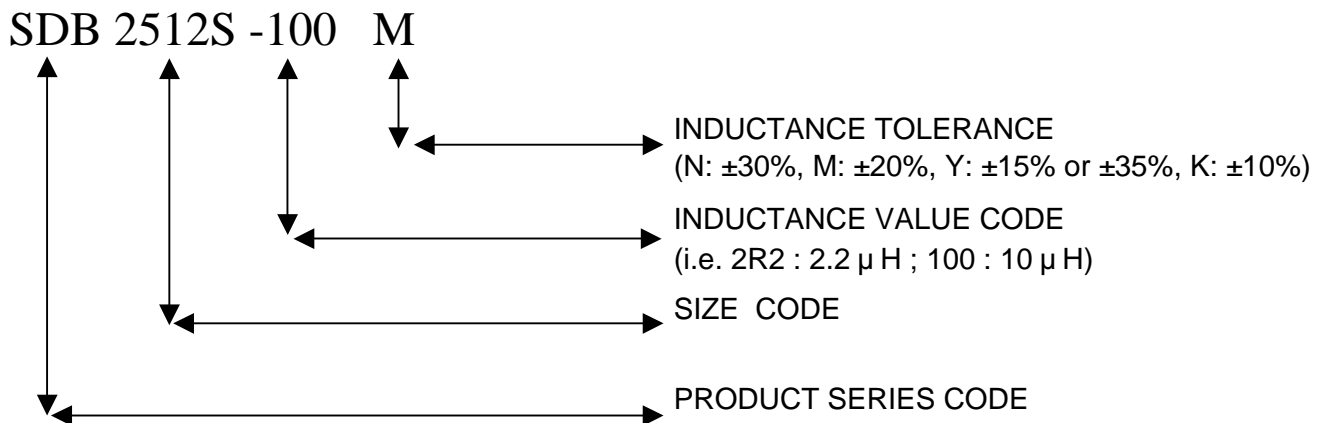
L/Q: HP4285A, HP4286A, HP4284A LCR meter, ZM2355 LCR Meter or equivalent.

DCR: Milli-ohm meter, CH16502, DU5011 milli ohm meter, HP4338B milli ohm meter, HIOKI 3540 or equivalent.

SRF: HP4291B, HP4287A or equivalent.

Electrical specification at 25 .

Part Numbering System



3. SDB Series (Shielded Type)

Dimensions (mm)

SDB2512S

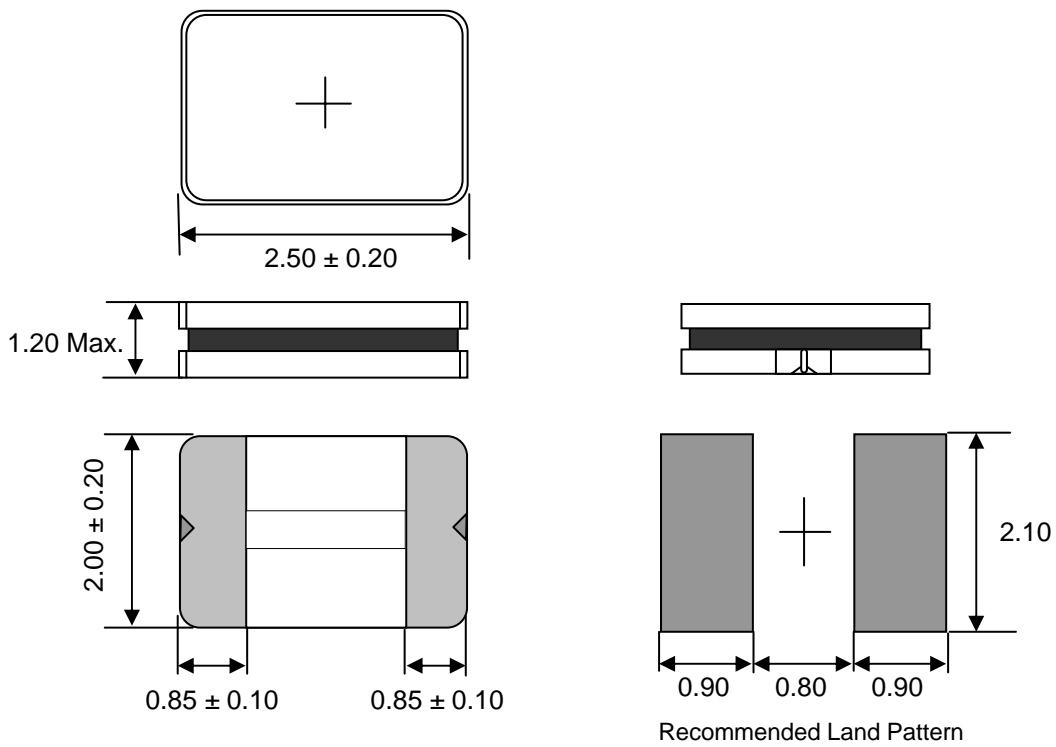


Fig. 1

3. SDB Series (Shielded Type)

Electrical Characteristics

SDB 2512S TYPE

Inductance Value Code	L (μH)	Tolerance	DCR (mΩ)		Isat (A)		Irms (A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
R24	0.24	M,N	22	29	6.00	5.50	4.30	4.10
R47	0.47	M,N	29	39	4.50	4.20	3.90	3.70
R68	0.68	M,N	36	48	4.20	3.85	3.40	3.20
1R0	1.00	M,N	45	59	3.45	3.10	3.20	3.00
1R5	1.50	M,N	60	72	2.75	2.50	2.60	2.40
1R8	1.80	M,N	80	96	2.55	2.30	2.35	2.15
2R2	2.20	M,N	90	108	2.45	2.20	2.20	2.00
3R3	3.30	M,N	120	140	2.00	1.80	1.80	1.60
4R7	4.70	M,N	200	240	1.70	1.50	1.50	1.30
100	10.0	M,N	400	480	1.15	1.05	0.95	0.85
330	33.0	M,N	1350	1620	0.50	0.45	0.52	0.47

- 1). Test Frequency : 1MHz/0.1V
- 2). Test equipment :
L/Q : HP-4286A
SRF : HP-4291B , HP4287A
DCR : HP-4286A , CH16502
- 3a). Isat : based on Inductance decrease 30%
- 3b). Irms : based on Temperature increase 40
- 4) Operating temperature range : -40 to +125 (Including self-temperature rise)