

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
* SDB0312V	0.33~10 μ H	4.50~1.30A (Irms) ; 7.00~1.90A (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)

SDB0312V, 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/L0A = 30% Typ. (SDB5D28, SDB1003, SDB1004 (Base on the L/L0A = 35% Typ.))

Test equipment:

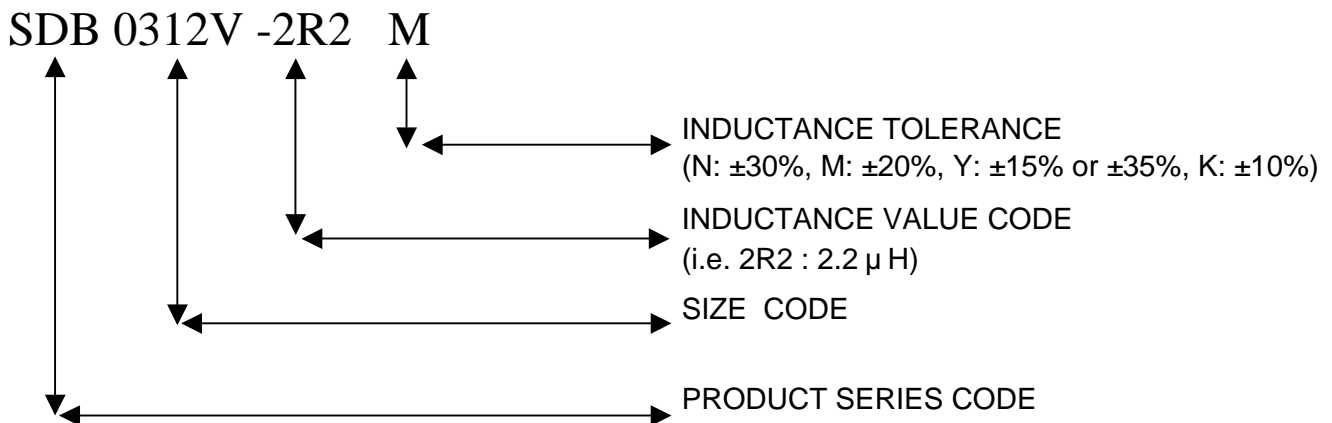
L/Q: HP4285A, HP4286A, HP4284A LCR meter, ZM2355 LCR Meter or equivalent.

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

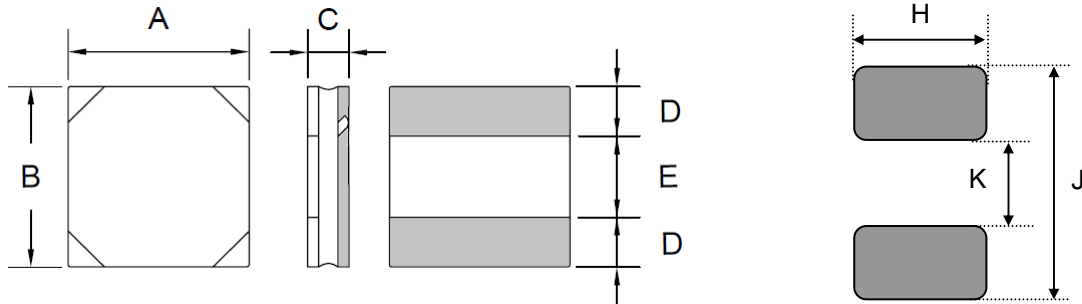


3. SDB Series (Shielded Type)

Dimensions (mm)

SDB0312V

PCB Pattern



Unit: mm

Type	A	B	C	D	E	H	J	K
SDB0312V	3.0±0.2	3.0±0.2	1.2 Max.	1.0 Ref.	1.0 Ref.	3.2	3.2	1.0

Electrical Characteristics

SDB 0312V TYPE

Part No.	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms (A) max.
SDB0312V-R33M	0.33	M	1MHz, 1V	0.024	7.0	4.5
SDB0312V-R47M	0.47	M	1MHz, 1V	0.030	6.5	4.2
SDB0312V-R68M	0.68	M	1MHz, 1V	0.038	5.5	3.7
SDB0312V-1R0M	1.0	M	1MHz, 1V	0.049	4.5	3.5
SDB0312V-1R5M	1.5	M	1MHz, 1V	0.072	4.0	3.0
SDB0312V-2R2M	2.2	M	1MHz, 1V	0.108	3.0	2.3
SDB0312V-3R3M	3.3	M	1MHz, 1V	0.156	2.5	1.7
SDB0312V-4R7M	4.7	M	1MHz, 1V	0.216	2.3	1.5
SDB0312V-6R8M	6.8	M	1MHz, 1V	0.300	1.9	1.3
SDB0312V-100M	10	M	1MHz, 1V	0.350	1.3	1.2

- 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)