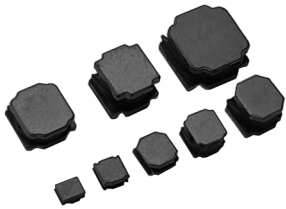




Semi-shielded power inductors for a wide range of applications



Eaton SDCx is a full line of semi-shielded power inductors with high-performance characteristics for consumer, industrial, energy, and medical applications.

Product description

Eaton SDCx is a full line of semi-shielded power inductors with high-performance characteristics for consumer, industrial, energy, and medical applications. It consists of two families: SDCL (offered in 7 series) and SDCH (offered in 5 series).

Eaton SDCx provides a complete range of inductance and current ratings while delivering high power density and low core loss, especially at higher frequencies. SDCL and SDCH utilize a high-precision, embedded semi-shielded construction. SDCL is rated from -40 °C up to +125 °C operating temperatures.

Features and benefits

- High current carrying capacity
- Ideal balance between performance and low-cost design
- Magnetically semi-shielded using magnetic resin/epoxy technology
- Low-loss ferrite material
- Inductance range from 0.33 μ H to 1 mH (1000 μ H)
- 2 mm to 8 mm PCB footprints (12 package sizes/height profiles)
- Moisture Sensitivity Level (MSL) 1



Powering Business Worldwide

Product specifications

Part number ²	FLL (μH) minimum	I _{rms} (A)	I _{sat} ¹ (A)	DCR (mΩ) @ +20 °C nominal	DCR (mΩ) @ +20 °C maximum
SDCL1V2010-yyyz-R	0.21 - 7.8	0.40 - 2.3	0.45 - 2.4	47 - 1150	53 - 1350
SDCL1V2510-yyyz-R	0.21 - 7.8	0.45 - 2.4	0.55 - 2.57	34 - 650	40 - 750
SDCL1V2512-yyyz-R	0.15 - 11.4	0.40 - 3.0	0.55 - 4.3	31 - 860	36 - 990
SDCL1V3012-yyyz-R	0.46 - 52.0	0.15 - 1.9	0.21 - 2.0	50 - 2900	58 - 3400
SDCL1V3015-yyyz-R	0.46 - 52.0	0.22 - 2.3	0.27 - 2.4	32 - 2500	38 - 2880
SDCL1V4018-yyyz-R	0.46 - 114.4	0.25 - 3.3	0.30 - 4.5	26 - 4200	30 - 4830
SDCL1V4020-yyyz-R	0.21 - 5.2	1.70 - 7.0	2.80 - 10.0	15 - 195	20 - 216
SDCL1V4030-yyyz-R	0.31 - 244.4	0.17 - 4.3	0.32 - 8.0	11 - 7200	15 - 8300
SDCH1V5020-yyyz-R	0.46 - 353.6	0.16 - 4.2	0.2 - 4.3	23 - 9800	26 - 11270
SDCH1V5040-yyyz-R	0.46 - 353.6	0.23 - 4.7	0.28 - 8.0	14 - 4850	18 - 5578
SDCH1V6028-yyyz-R	0.46 - 520.0	0.24 - 5.7	0.25 - 8.5	16 - 6000	20 - 6900
SDCH1V6045-yyyz-R	0.46 - 520.0	0.23 - 6.0	0.45 - 12.8	12 - 6000	15 - 6900
SDCH1V8040-yyyz-R	0.46 - 520.0	0.37 - 8.0	0.42 - 12.0	7 - 2900	9 - 3335

3. I_{sat}: Peak current for approximately 35% maximum rolloff @ +25 °C

4. Part number definition: SDCH1Vxxx-yyyz-R

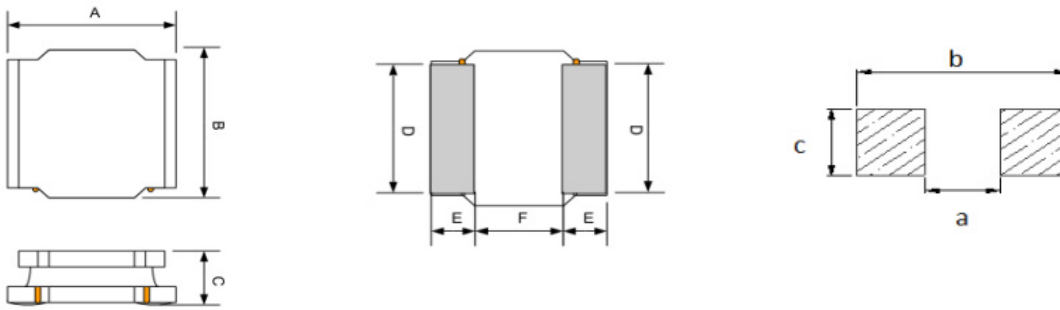
SDCH1V = Product code

xxx= size code

yyy= Inductance value in μH, R=decimal point

z= Inductance tolerance

-R suffix = RoHS compliant



Part number ²	A	B	C	D	E	F	a	b	c
SDCL1V2010-yyyz-R	2.1 ± 0.2	1.7 ± 0.2	1.05MAX	1.7 ± 0.2	0.7 ± 0.3	0.7 ± 0.3	0.4 TYP	2.4 TYP	2.0 TYP
SDCL1V2510-yyyz-R	2.5 ± 0.3	2.0 ± 0.35	1.05MAX	2.1 ± 0.2	0.8 ± 0.3	1.0 ± 0.3	0.7 TYP	2.8 TYP	2.4 TYP
SDCL1V2512-yyyz-R	2.5 ± 0.3	2.0 ± 0.35	1.20MAX	2.2 ± 0.2	0.8 ± 0.3	1.0 ± 0.3	0.7 TYP	2.8 TYP	2.5 TYP
SDCL1V3012-yyyz-R	3.0 ± 0.2	3.0 ± 0.2	1.30MAX	2.8 ± 0.2	0.9 ± 0.3	1.2 ± 0.3	0.9 TYP	3.3 TYP	3.1 TYP
SDCL1V3015-yyyz-R	3.0 ± 0.2	3.0 ± 0.2	1.50MAX	2.8 ± 0.2	0.9 ± 0.3	1.2 ± 0.3	0.9 TYP	3.3 TYP	3.1 TYP
SDCL1V4018-yyyz-R	4.0 ± 0.2	4.0 ± 0.2	1.90MAX	3.4 ± 0.2	1.2 ± 0.3	1.6 ± 0.3	1.3 TYP	4.3 TYP	3.7 TYP
SDCL1V4020-yyyz-R	4.0 ± 0.2	4.0 ± 0.2	2.00MAX	3.5 ± 0.2	1.0 ± 0.3	2.0 ± 0.3	1.7 TYP	4.3 TYP	3.8 TYP
SDCL1V4030-yyyz-R	4.0 ± 0.2	4.0 ± 0.2	3.00MAX	3.2 ± 0.2	0.1 ± 0.3	2.0 ± 0.3	1.7 TYP	4.3 TYP	3.5 TYP
SDCH1V5020-yyyz-R	5.0 ± 0.2	5.0 ± 0.2	2.0MAX	4.0 ± 0.2	1.4 ± 0.3	2.3 ± 0.3	2.0 TYP	5.3 TYP	4.3 TYP
SDCH1V5040-yyyz-R	5.0 ± 0.2	5.0 ± 0.2	4.1MAX	4.0 ± 0.2	1.5 ± 0.3	2.0 ± 0.3	1.7 TYP	5.3 TYP	4.3 TYP
SDCH1V6028-yyyz-R	6.0 ± 0.2	6.0 ± 0.2	3.0MAX	5.0 ± 0.2	1.9 ± 0.3	2.3 ± 0.3	2.0 TYP	6.3 TYP	5.3 TYP
SDCH1V6045-yyyz-R	6.0 ± 0.2	6.0 ± 0.2	4.5MAX	4.9 ± 0.2	1.6 ± 0.3	2.7 ± 0.3	2.4 TYP	6.3 TYP	5.2 TYP
SDCH1V8040-yyyz-R	8.0 ± 0.3	8.0 ± 0.3	4.2MAX	6.3 ± 0.2	2.5 ± 0.3	3.1 ± 0.3	2.8 TYP	8.3 TYP	6.6 TYP

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