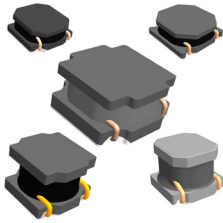


Automotive-grade semi-shielded inductors with superior performance



Eaton's SDCxA is a new line of automotive-grade semi-shielded power inductors comprising two families; SDCLA and SDCHA.

Product description

Eaton's SDCxA is a new line of automotive-grade semi-shielded power inductors comprising two families; SDCLA and SDCHA. The SDCLA offers a single footprint size; SDCLA1V40xx across 9 SKUs, while SDCHA offers 3 footprint sizes; SDCHA1V50xx, SDCHA1V60xx, and SDCHA1V80xx across 56 SKUs. Eaton's SDCxA is conveniently packaged in 4 high power density sizes (4 mm, 5 mm, 6 mm, and 8 mm). The SDCLA offers inductances from 1.0 uH to 22 uH, while SDCHA offers inductances from 1.0 uH to 100 uH.

The SDCxA also offers a wide range of current ratings while delivering high power density and low core losses. These products utilize high precision embedded semi-shielded construction for excellent EMI immunity in automotive applications. Each power inductor is rated from -55 °C up to +125 °C operating temperatures.

Features and benefits

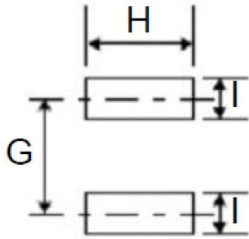
- Wide range of inductance values suitable for many types of buck and boost converters and power filtering designs
- 4 SMT footprint sizes covering a wide range of small and larger PCB SMT applications
- Standard SMT terminals provide board design flexibility and ease-of-use in existing and new platforms
- High-efficiency drum core construction to reduce core losses at a higher power density
- Embedded magnetic shielding for greater EMI immunity
- Wide temperature range (-55 °C to 125 °C) suitable for various transportation applications

Product specifications

Part number ⁵	OCL ¹ (μ H)	Tolerance	FLL ² (μ H) minimum	I _{rm} ³ (A)	I _{sat} ⁴ (A)	DCR (m Ω) \pm 20% @ +25 °C	SRF (MHz) typical
SDCLA1V4018-xxx-R	1-22	\pm 20% \pm 30%	0.49-12.32	0.72-3.2	0.9-4	0.027-0.29	15-90
SDCHA1V5020-xxx-R	1-22	\pm 20% \pm 30%	0.49-12.32	1.1-4.1	1.1-5	20-225	24-137
SDCHA1V5040-xxx-R	1-22	\pm 20%	0.56-12.32	1.5-5	1.62-7.5	12-123	16-140
SDCHA1V6045-xxx-R	1-100	\pm 20%	0.56-56.00	0.92-8.0	1.33-13.5	10-456	8.5-110
SDCHA1V8040-xxx-R	1-100	\pm 20%	0.56-56.00	1.2-8.5	1.45-13.8	8.2-300	8-85

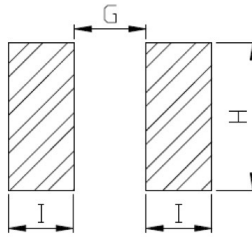
Dimensions - mm

SDCLA1V4018-xxx-R



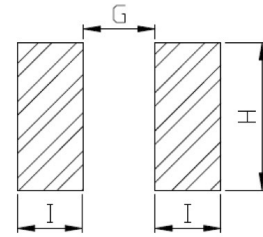
Dimension	SDCLA1V4018-xxx-R
G	2.8 REF
H	3.7 REF
I	1.2 REF

SDCHA1V5020-xxx-R



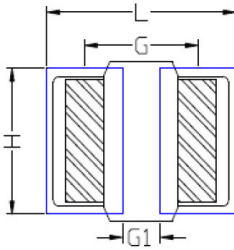
Dimension	SDCHA1V5020-xxx-R
G	2.1
H	4.7
I	1.5

SDCHA1V5040-xxx-R



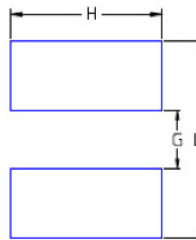
Dimension	SDCHA1V5040-xxx-R
G	2.1
H	4.2
I	1.5

SDCHA1V6045-xxx-R



Dimension	SDCHA1V6045-xxx-R
L	8.5
G	5.5
H	6.3
G1	2.5

SDCHA1V8040-xxx-R



Dimension	SDCHA1V8040-xxx-R
L	8.5
G	2.8
H	6.6

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