



Pressed-powder high current inductors for high power and EMI immunity in automotive applications



Eaton's EXLA is a next-gen pressed-powder high current inductor available in six high-power density sizes.

Product description

Eaton's EXLA is a next-gen pressed-powder high current inductor available in six high-power density sizes (4 mm, 5 mm, 6 mm, 7 mm, 8 mm, and 10 mm) surface mount packages with a variety of height options.

They feature a molded construction ideal for high-current applications requiring low saturation and stability across a wide temperature range (-55 °C to +155 °C). EXLA inductors utilize superior powder core materials and advanced manufacturing processes to achieve up to 30% better current ratings, soft saturation, and up to 50% lower DCR than other similar offerings.

Features and benefits

- Bottom exit SMT terminals
- Multiple heights per high-power-density footprint
- High current capability; up to 58 A
- Magnetically shielded for low EMI performance
- Low DCR, high efficiency
- Soft saturation
- Alloy powder core material
- Moisture Sensitivity Level (MSL) 1
- Wide range of inductance values from 0.18 μ H to 22 μ H
- Wide operating temperature range (-55 °C to +155 °C)



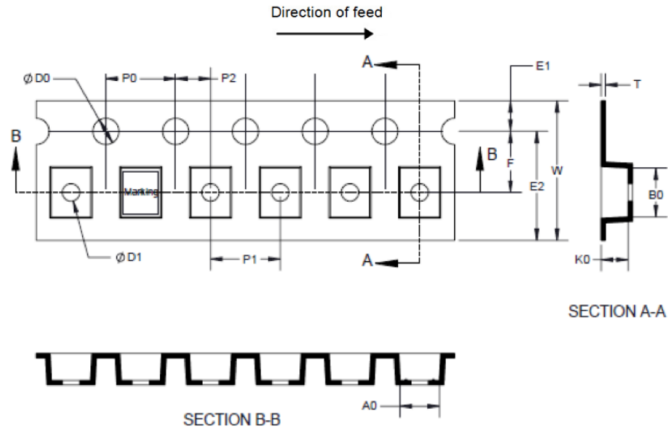
Powering Business Worldwide

Product specifications

Family	OCL (μH) $\pm 20\%$	I_{rms} (A)	I_{sat} (A)	DCR (m Ω) typical @ +25 °C	DCR (m Ω) maximum @ +25 °C	Dimensions LxWxH (mm)
EXLA1V04	0.5 - 4.7	5.1 - 13.2	3.5 - 12.5	6.0 - 52-	6.8 - 57.2	4.6 x 4.6 x 2.1
EXLA1V05	0.3 - 22	3.4 - 25.5	4.1 - 28	2.2 - 90.6	2.6 - 99.7	6.2 x 5.9 x 3.1, 5.1
EXLA1V06	0.2 - 22	5 - 32	5 - 36	1.6 - 55	1.8 - 60.5	7.4 x 7.1 x 3.1, 5.0, 6.0
EXLA1V07	1 - 10	7 - 25	7 - 31.8	2.6 - 51	2.8 - 56.1	8.7 x 8.3 x 3.1, 5.0, 7.0
EXLA1V08	3.3 - 10	8.7 - 18	10 - 20	6.6 - 20.8	7.3 - 22.9	9.2 x 8.8 x 8.0
EXLA1V10	0.56 - 15	9 - 32	12.5 - 39	2.5 - 17.5	2.75 - 19.3	12.2 x 11.3 x 3.1, 6.0, 10

Packaging-mm

(Drawing not to scale)



Dimension	EXLA 1V0402 3000	EXLA 1V0503 2000	EXLA 1V0505 1500	EXLA 1V0603 1000	EXLA 1V0605 800	EXLA 1V0606 750	EXLA 1V0703 1500	EXLA 1V0705 800	EXLA 1V0707 750	EXLA 1V0808 450	EXLA 1V1003 1000	EXLA 1V1006 500	EXLA 1V1010 300
W ± 0.30	12.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	24.00	24.00	24.00	24.00
F ± 0.10	5.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	11.50	11.50	11.50
E1 ± 0.10	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
E2 min	10.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	22.25	22.25	22.25	22.25
P0 ± 0.10	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
P1 ± 0.10	8.00	8.00	8.00	12.00	12.00	12.00	12.00	12.00	12.00	16.00	16.00	16.00	16.00
P2 ± 0.10	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
D0 + 0.10/-0	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
D1 + 0.10/-0	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
A0 ± 0.10	4.70	6.40	6.40	7.60	7.60	7.60	8.80	8.80	8.80	9.40	12.40	12.40	12.40
B0 ± 0.10	4.70	6.10	6.10	7.30	7.30	7.30	8.40	8.40	8.40	8.90	11.50	11.50	11.50
K0 ± 0.10	2.3	3.3	5.3	3.30	5.30	6.30	3.30	5.30	7.30	8.50	3.30	6.30	10.30
T ± 0.05	0.35	0.35	0.35	0.35	0.40	0.50	0.35	0.40	0.50	0.35	0.35	0.35	0.35

See data sheet for complete specification details

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