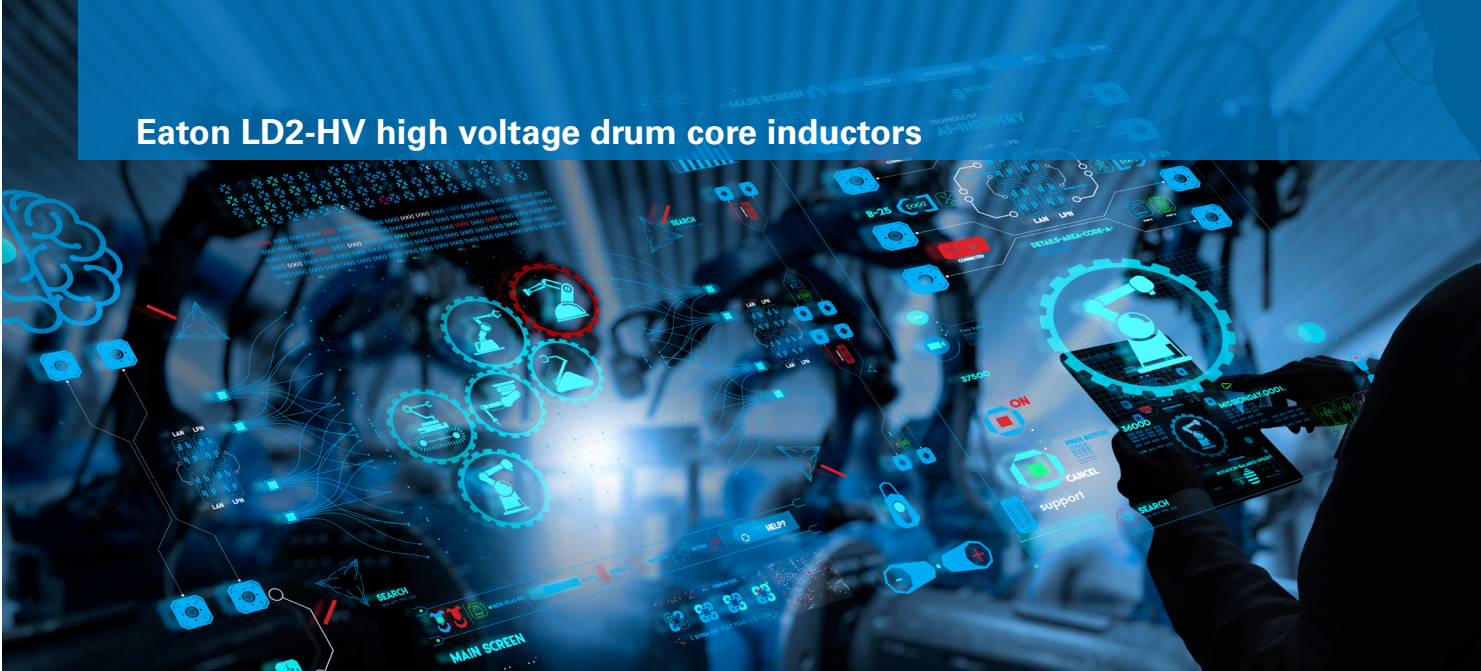


Eaton LD2-HV high voltage drum core inductors



High power density, low core loss drum core power inductors for electronic applications



Eaton's LD2-HV is a new line of drum core power inductor consisting of one family: LD2-HV in a single 8.1 mm x 7.3 mm footprint SMT package in 5.3 mm height across 24 SKUs.

Product description

Eaton's LD2-HV is a new line of drum core power inductor consisting of one family: LD2-HV in a single 8.1 mm x 7.3 mm footprint SMT package in a 5.3 mm height across 24 SKUs. The LD2-HV is designed to withstand higher voltage potential from 500 V to 1000 V, and it is suitable for commercial, industrial, energy, and medical applications or applications with high-potential requirements of up to 1000 V.

The LD2-HV's ferrite core material delivers high power density and low core losses, especially at higher frequencies. Moreover, its unshielded core construction provides the highest flexibility for the lowest cost in applications with higher voltage requirements. Eaton's LD2-HV is rated from -25 °C up to +125 °C operating temperatures.

Features and benefits

- Standard package size (8.1 mm x 7.3 mm x 5.3 mm)
- High saturation current (I_{sat}) rating
- Wide inductance range (1.0 uH to 2200 uH)
- High-efficiency ferrite drum construction to minimize core losses and deliver higher power density
- Unshielded design
- Isolation voltage up to 1000 V

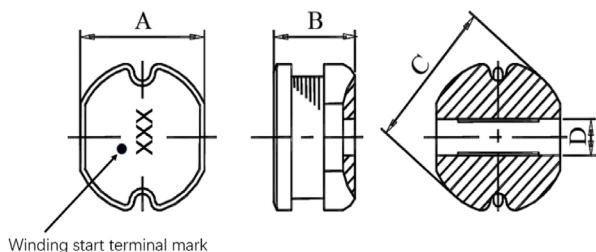
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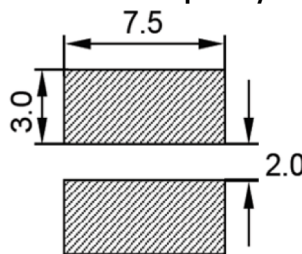
Product specifications

Part number	OCL (μH)	FLL (μH) minimum	I _{sat} (A) typical	I _{rms} (A) typical	DCR (mΩ) @ +20 °C maximum	Impulse test voltage (Pin 1 to Pin 2) V	Hi-pot test voltage (Winding to core)
LD2-1R0-HV	1.0 ± 30%	0.56	6.0	NA	15	1100	1000 Vac ; 60 s ; 3 mA
LD2-1R5-HV	1.5 ± 30%	0.84	5.5	NA	17	1100	1000 Vac ; 60 s ; 3 mA
LD2-2R2-HV	2.2 ± 20%	1.41	5.0	NA	20	1100	1000 Vac ; 60 ss 3 mA
LD2-3R3-HV	3.3 ± 20%	2.11	4.5	NA	28	1100	1000 Vac ; 60 s ; 3 mA
LD2-4R7-HV	4.7 ± 20%	3.0	4.0	NA	36	1100	1000 Vac ; 60 s ; 3 mA
LD2-6R8-HV	6.8 ± 20%	4.35	3.5	NA	40	1100	1000 Vac ; 60 s ; 3 mA
LD2-100-HV	10 ± 20%	6.4	2.5	NA	60	1100	1000 Vac ; 60 s ; 3 mA
LD2-150-HV	15 ± 20%	9.6	2.2	NA	85	1100	1000 Vac ; 60 s ; 3 mA
LD2-220-HV	22 ± 20%	14.1	2.0	NA	100	1100	1000 Vac ; 60 s ; 3 mA
LD2-330-HV	33 ± 20%	21.1	1.5	NA	150	1000	1000 Vac ; 60 s ; 3 mA
LD2-470-HV	47 ± 20%	30.1	1.2	NA	200	1000	1000 Vac ; 60 s ; 3 mA
LD2-680-HV	68 ± 20%	43.5	1.0	NA	270	1000	1000 Vac ; 60 s ; 3 mA
LD2-820-HV	82 ± 20%	52.5	0.9	NA	300	1000	1000 Vac ; 60 s ; 3 mA
LD2-101-HV	100 ± 20%	64.0	0.8	NA	380	900	1000 Vac ; 60 s ; 3 mA
LD2-221-HV	220 ± 20%	140.8	0.5	NA	750	800	1000 Vac ; 60 s ; 3 mA
LD2-331-HV	330 ± 20%	211.2	0.4	NA	1420	700	1000 Vac ; 60 s ; 3 mA
LD2-471-HV	470 ± 20%	300.8	0.53	0.67	1900	700	1000 Vac ; 60 s ; 3 mA
LD2-561-HV	560 ± 20%	358.4	0.5	0.61	2000	700	1000 Vac ; 60 s ; 3 mA
LD2-681-HV	680 ± 20%	435.2	0.44	0.53	2500	600	1000 Vac ; 60 s ; 3 mA
LD2-821-HV	820 ± 20%	524.8	0.41	0.5	3200	600	1000 Vac ; 60 s ; 3 mA
LD2-102-HV	1000 ± 20%	640.0	0.36	0.44	4000	600	500 Vac ; 60 s ; 3 mA
LD2-122-HV	1200 ± 20%	768.0	0.33	0.4	4500	600	500 Vac ; 60 s ; 3 mA
LD2-152-HV	1500 ± 20%	960.0	0.31	0.36	5500	600	500 Vac ; 60 s ; 3 mA
LD2-222-HV	2200 ± 20%	1408.0	0.25	0.3	10000	300	500 Vac ; 60 s ; 3 mA

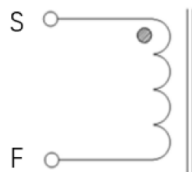
Dimensions- mm



Recommended pad layout



Schematic



Dimension	Value
A	7.0 ± 0.3
B	5.0 ± 0.3
C	7.8 ± 0.3
D	2.5 reference

See [data sheet](#) for full details

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