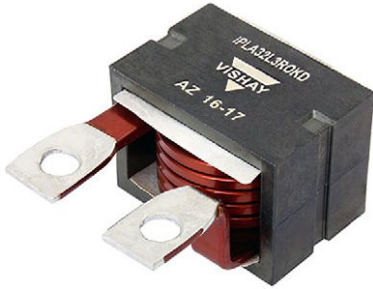


High Current Planar Choke Inductor



In addition to catalogue product presented here, many custom products have been engineered see on following page few examples.

QUICK REFERENCE DATA	
Type	Inductor
Size (L x W x H)	31 mm x 43 mm x 22.2 mm
Terminals	Leadframe or wires
Inductance range ⁽¹⁾	1 μ H to 4 μ H ⁽²⁾
Frequency range	100 kHz to 400 kHz

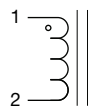
Notes

⁽¹⁾ Other values on request

⁽²⁾ Please refer to "part number examples" table on the next page

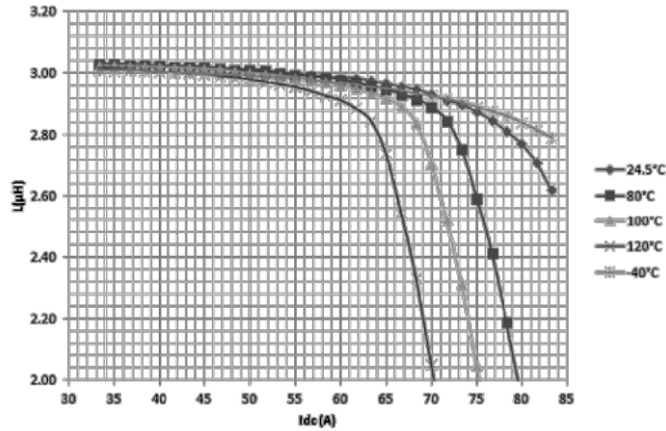
FEATURES

- For high power density DC/DC converter application
- High current capabilities
- Very stable performances versus temperature
- Very compact design (low profile and weight)
- Low EMI, magnetically shielded
- High self-resonance frequency
- Recommended frequency range (100 kHz; 800 kHz)
- Operating temperature range:
-55 °C; 125 °C with heatsink dissipation
- Flexible pin out design (tapped output terminals, layout, ...)
- Material temperature grade: 180 °C
- Custom design on request

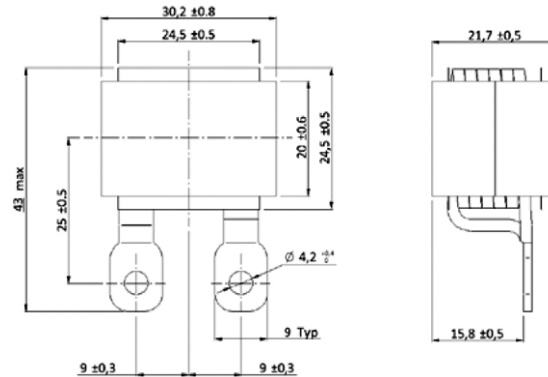
CLASSICAL FRAMEWORKS - Other topologies on request				
L(1-2) 100 kHz / 0.1 V	WINDING R _{DC} (1-2)	INSULATION: WINDING / CORE 500 V _{DC}	POWER LOSSES ASSESSMENT UNDER 70 A _{DC} AND WINDING AT 120 °C	ELECTRICAL SCHEME
3 μ H \pm 10 %	0.62 m Ω	R _i > 10 M Ω	3 W ⁽¹⁾	

Note

⁽¹⁾ **Caution:** power losses draining shall be managed by customer device

ELECTRICAL SCHEMES

TYPICAL THERMAL RESISTANCE

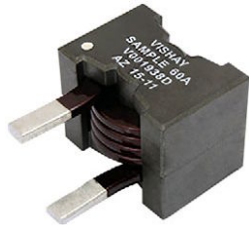
NATURAL CONVECTION	HEATSINK 1 FACE	HEATSINK 2 FACES
10.5 W/mK	4 W/mK	2 W/mK

MECHANICAL DIMENSIONS FOR IPLA32L

PART NUMBER EXAMPLES

PART NUMBER	L (µH)	I (A)	ΔI (A)	LOSS (W)	ΔT ⁽¹⁾ (°C)
IPLA32L1R0KD	1	110	22	7	75
IPLA32L2R0KD	2	100	20	5.8	60
IPLA32L3R0KD	3	70	14	2.8	30
IPLA32L4R0KD	4	50	10	1.5	15

Note

⁽¹⁾ ΔT °C assessed with natural convection. When ΔT °C > 40 °C it's advised to use a fitted thermal device to keep core temperature ≤ 125 °C

EXAMPLES OF CUSTOM DESIGNS ALREADY ENGINEERED

 3 μ H / 45 A

 3 μ H / 70 A

 3 μ H / 140 A

SAP PART NUMBERING

MODEL	SIZE	STYLE	VALUE	RATIO	SPECIAL
4 digits IPLA	2 digits 32 = EC 32	1 digit W = Wire L = Leadframe N = Leadframe with threaded nuts	3 digits 3R0 = 3 μ H 101 = 100 μ H 300 = 30 μ H	1 digit M = \pm 20 % A = \pm 15 % K = \pm 10 %	6 digits



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