



## XTHILO SERIES

### PLANAR INDUCTORS



### +150°C

### ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +150°C
- **Storage Temperature:** -60°C to +150°C
- **Temperature Rise @ 110°C:** < 40°C
- **Dielectric Withstanding Voltage:** 100 V<sub>RMS</sub>
- **Different electrical values available upon request**

### FEATURES

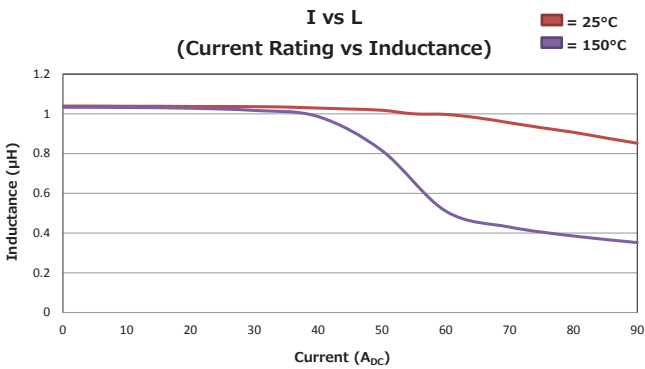
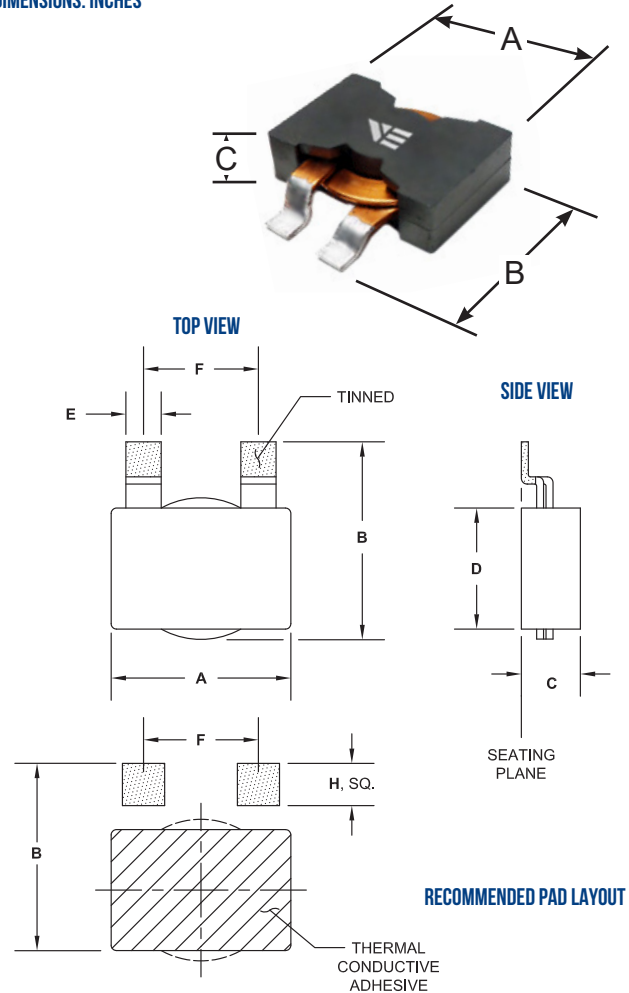
- **Compact** ideal for automatic placement
- **HIGH Power Density, LOW Profile**
- **LOW Power Losses, HIGH Efficiency**
- **Terminations:** Tin-lead or RoHS compliant
- **Co-planarity:** ± 0.006
- **High reliability**
- **Other termination finishes available**

### APPLICATIONS

- High current inductor for POL
- High current low profile for power supplies
- Low resistance ideal for battery based systems
- Designed for use in harsh environments
- High current ideal for use with low voltage FPGA

Current Rating (A)	DCR (mOhms)	Inductance Range (uH)
4 to 75	0.45 to 9.6	0.10 to 20

ALL DIMENSIONS: INCHES



Package	A max	B* max	C max	D max	E (±.010)	F (±.030)	H ref.	Wt. ref.
XTHILO2518	1.00	1.10	0.35	0.725	0.197	0.642	0.236	20g
XTHILO1209AL	0.49	0.55	0.22	0.365	0.071	0.300	0.085	3g
XTHILO1209A	0.49	0.50	0.22	0.365	0.071	0.300	0.085	3g
XTHILO1209B	0.49	0.50	0.285	0.365	0.071	0.300	0.085	3.5g
XTHILO1209CL	0.49	0.55	0.33	0.365	0.071	0.300	0.085	4g
XTHILO1209C	0.49	0.50	0.33	0.365	0.071	0.300	0.085	4g
XTXTHILO1005	0.40	0.50	0.19	0.320	0.071	0.220	0.085	2g
XTXTHILO0906	0.38	0.40	0.20	0.200	0.071	0.170	0.085	1.5g

\*Dimension is based off design calculations and can be subjected to a minor modification.

**CUSTOM DESIGNS & MODIFICATIONS:**  
Other electrical configurations and performance characteristics are available in various sizes and package types





Vanguard P/N	Inductance ref. (uH)	DCR max (mOhms)	Saturation Current* (A <sub>DC</sub> )	Max Current Rating** (A <sub>RMS</sub> )
XTHILO2518-R68*-*-*	0.68	0.80	70	48
XTHILO2518-R82*-*-*	0.82	0.80	65	48
XTHILO2518-1R0*-*-*	1.0	0.80	60	48
XTHILO2518-1R2*-*-*	1.2	0.80	55	48
XTHILO2518-1R5*-*-*	1.5	0.80	50	48
XTHILO2518-1R8*-*-*	1.8	1.4	50	35
XTHILO2518-2R2*-*-*	2.2	1.4	44	35
XTHILO2518-3R3*-*-*	3.3	3.0	35	24
XTHILO2518-4R7*-*-*	4.7	3.0	30	24
XTHILO2518-5R6*-*-*	5.6	3.0	26	24
XTHILO2518-6R8*-*-*	6.8	6.3	28	16
XTHILO2518-8R2*-*-*	8.2	6.3	24	16
XTHILO2518-10R*-*-*	10.0	6.3	20	16
XTHILO2518-20R*-*-*	20.0	6.3	10	16
XTHILO1209AL-R22*-*-*	0.22	1.10	60	15
XTHILO1209AL-R33*-*-*	0.33	1.10	52	15
XTHILO1209AL-R47*-*-*	0.47	1.10	34	15
XTHILO1209AL-R56*-*-*	0.56	1.10	30	15
XTHILO1209AL-R68*-*-*	0.68	1.10	24	15
XTHILO1209AL-R82*-*-*	0.82	1.10	18	15
XTHILO1209AL-1R0*-*-*	1.0	1.10	15	15
XTHILO1209A-1R5*-*-*	1.5	2.10	16	10
XTHILO1209A-1R8*-*-*	1.8	2.10	13	10
XTHILO1209A-2R2*-*-*	2.2	2.10	10	10
XTHILO1209A-3R3*-*-*	3.3	5.40	12	6
XTHILO1209A-4R7*-*-*	4.7	5.40	8	6
XTHILO1209A-5R6*-*-*	5.6	5.40	7	6
XTHILO1209A-6R8*-*-*	6.8	5.40	6	6
XTHILO1209A-8R2*-*-*	8.2	9.60	6	5
XTHILO1209A-10R*-*-*	10.0	9.60	5	5
XTHILO1209B-8R2*-*-*	8.2	9.5	8	6
XTHILO1209B-R10*-*-*	10.0	9.5	7	6
XTHILO1209B-R12*-*-*	12.0	9.5	6	6
XTHILO1209B-R15*-*-*	15.0	9.5	5	6
XTHILO1209B-R18*-*-*	18.0	9.5	4	6
XTHILO1209CL-R10*-*-*	0.10	0.45	75	40
XTHILO1209CL-R15*-*-*	0.15	0.45	72	40
XTHILO1209CL-R18*-*-*	0.18	0.45	70	40
XTHILO1209CL-R22*-*-*	0.22	0.45	60	40

Inductance measured at 10 kHz, 1.0 V<sub>RMS</sub>

\* Inductance drop < 30% at specified Saturation Current

\*\* Temperature rise < 40°C at Rating Current

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Vanguard P/N	Inductance ref. (uH)	DCR max (mOhms)	Saturation Current* (A <sub>DC</sub> )	Max Current Rating** (A <sub>RMS</sub> )
XTHILO1209CL-R33*-**	0.33	0.45	40	40
XTHILO1209C-R47*-**	0.47	1.40	44	20
XTHILO1209C-R56*-**	0.56	1.40	40	20
XTHILO1209C-R68*-**	0.68	1.40	38	20
XTHILO1209C-R82*-**	0.82	1.40	35	20
XTHILO1209C-1R0*-**	1.0	1.40	30	20
XTHILO1209C-1R2*-**	1.2	1.40	20	20
XTHILO1209C-1R5*-**	1.5	2.43	24	14
XTHILO1209C-1R8*-**	1.8	2.43	18	14
XTHILO1209C-2R2*-**	2.2	2.43	16	14
XTHILO1209C-3R3*-**	3.3	2.43	12	14
XTHILO1209C-4R7*-**	4.7	4.09	11	10
XTHILO1209C-5R6*-**	5.6	4.09	10	10
XTHILO1209C-6R8*-**	6.8	6.44	10	8
XTHILO1209C-8R2*-**	8.2	6.44	8	8
XTHILO1209C-10R*-**	10.0	6.44	7	8
XTHILO1005-R33*-**	0.33	0.82	20	14
XTHILO1005-R47*-**	0.47	0.82	16	14
XTHILO1005-R56*-**	0.56	0.82	15	14
XTHILO1005-R68*-**	0.68	0.82	13	14
XTHILO1005-R82*-**	0.82	0.82	10	14
XTHILO1005-1R0*-**	1.0	3.04	12	8
XTHILO1005-1R5*-**	1.5	3.04	9	8
XTHILO1005-1R8*-**	1.8	3.04	7	8
XTHILO1005-2R2*-**	2.2	3.04	7	8
XTHILO1005-3R3*-**	3.3	3.04	5	8
XTHILO1005-4R7*-**	4.7	6.22	4.5	4
XTHILO1005-5R6*-**	5.6	6.22	3.5	4
XTHILO1005-6R8*-**	6.8	6.22	3	4
XTHILO1005-8R2*-**	8.2	6.22	2.5	4
XTHILO1005-10R*-**	10.0	6.22	2	4
XTHILO0906-R33*-**	0.33	1.8	20	12
XTHILO0906-R47*-**	0.47	1.8	18	12
XTHILO0906-R56*-**	0.56	1.8	16	12
XTHILO0906-R68*-**	0.68	1.8	14	12
XTHILO0906-R82*-**	0.82	1.8	12	12
XTHILO0906-1R0*-**	1.0	3.5	14	8
XTHILO0906-1R5*-**	1.5	3.5	9	8
XTHILO0906-1R8*-**	1.8	3.5	8	8

Inductance measured at 10 kHz, 1.0 V<sub>RMS</sub>

\* Inductance drop < 30% at specified Saturation Current

\*\* Temperature rise < 40°C at Rating Current

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XTHILO0906-2R2*-*-*	2.2	6.0	8	6
XTHILO0906-3R3*-*-*	3.3	6.0	6	6
XTHILO0906-4R7*-*-*	4.7	8.8	5	4
XTHILO0906-5R6*-*-*	5.6	8.8	4	4
XTHILO0906-6R8*-*-*	6.8	8.8	3.2	4
XTHILO0906-8R2*-*-*	8.2	8.8	2.8	4
XTHILO0906-10R*-*-*	10	8.8	2.4	4

Inductance measured at 10 kHz, 1.0 V<sub>RMS</sub>

\* Inductance drop < 30% at specified Saturation Current

\*\* Temperature rise < 40°C at Rating Current

### VE PART NUMBER STRUCTURE KEY

EXAMPLE: XTHILO2518-R68S-T

#### INDUCTANCE (uH)

0.68  
R68

\*R = Decimal point

10u = 10R

#### TERMINATION

S	SnPb
R	RoHS

#### PACKAGING ( Default Bulk )

B	Bulk
T	Tape and Reel

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