



HILO SERIES

PLANAR INDUCTORS



MIL-PRF-27

ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +125°C
- **Storage Temperature:** -60°C to +130°C
- **Temperature Rise @ 90°C:** < 40°C
- **Dielectric Withstanding Voltage:** 100 V_{RMS}
- **Different electrical values available upon request**

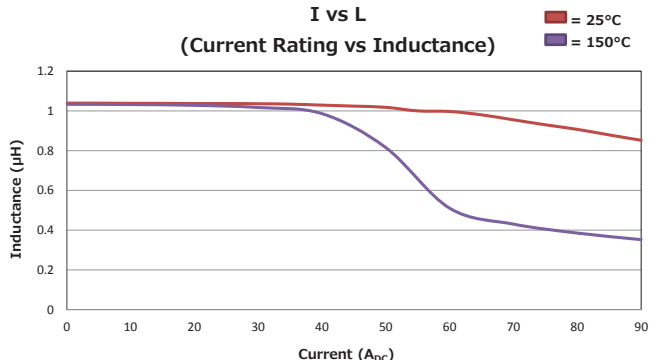
FEATURES

- **Compact** ideal for automatic placement
- **HIGH Power Density, LOW Profile**
- **LOW Power Losses, HIGH Efficiency**
- Built to meet **MIL-PRF-27** specifications
- **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

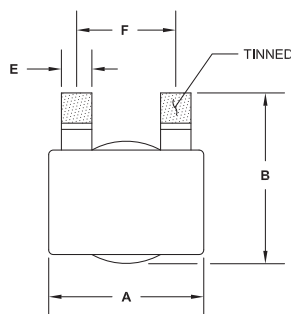
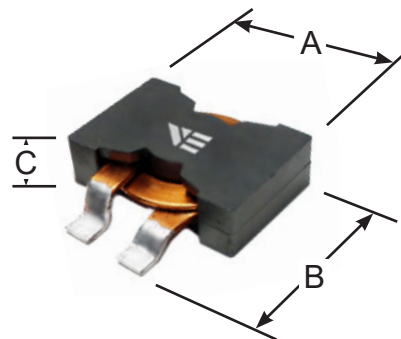
I vs L
(Current Rating vs Inductance)



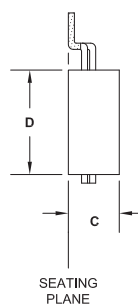
CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types

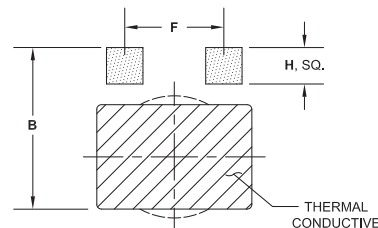
ALL DIMENSIONS: INCHES



TOP VIEW



SIDE VIEW



RECOMMENDED PAD LAYOUT

Package	A max	B* max	C max	D max	E (±.010)	F (±.030)	H ref.	Wt. ref.
HILO3225	1.30	1.45	1.00	0.89	0.236	0.453	0.275	90g
HILO3220	1.30	1.45	0.83	0.89	0.236	0.453	0.275	70g
HILO2518H	1.00	1.10	0.51	0.725	0.197	0.642	0.236	30g
HILO2518	1.00	1.10	0.35	0.725	0.197	0.642	0.236	20g
HILO1209AL	0.49	0.55	0.22	0.365	0.071	0.300	0.085	3g
HILO1209A	0.49	0.50	0.22	0.365	0.071	0.300	0.085	3g
HILO1209B	0.49	0.50	0.285	0.365	0.071	0.300	0.085	3.5g
HILO1209CL	0.49	0.55	0.33	0.365	0.071	0.300	0.085	4g
HILO1209C	0.49	0.50	0.33	0.365	0.071	0.300	0.085	4g
HILO1005	0.40	0.50	0.19	0.320	0.071	0.220	0.085	2g
HILO0906	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.

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Vanguard P/N	Inductance ref. (uH)	DCR max (mOhms)	Saturation Current* (A _{DC})	Max Current Rating** (A _{RMS})
HILO3225-8R2*-**	8.2	2.2	45	42
HILO3225-10R*-**	10	2.2	40	42
HILO3225-12R*-**	12	2.2	35	42
HILO3225-15R*-**	15	2.2	30	42
HILO3220-6R8*-**	6.8	4.5	48	40
HILO3220-8R2*-**	8.2	4.5	42	40
HILO3220-10R*-**	10	4.5	36	40
HILO3220-12R*-**	12	4.5	30	40
HILO2518H-3R3*-**	3.3	1.4	40	36
HILO2518H-3R9*-**	3.9	1.4	36	36
HILO2518H-4R7*-**	4.7	1.4	32	36
HILO2518H-5R6*-**	5.6	1.4	28	36
HILO2518-R68*-**	0.68	0.80	70	48
HILO2518-R82*-**	0.82	0.80	65	48
HILO2518-1R*-**	1	0.80	60	48
HILO2518-1R2*-**	1.2	0.80	55	48
HILO2518-1R5*-**	1.5	0.80	50	48
HILO2518-1R8*-**	1.8	1.4	50	35
HILO2518-2R2*-**	2.2	1.4	44	35
HILO2518-3R3*-**	3.3	3.0	35	24
HILO2518-4R7*-**	4.7	3.0	30	24
HILO2518-5R6*-**	5.6	3.0	26	24
HILO2518-6R8*-**	6.8	6.3	28	16
HILO2518-8R2*-**	8.2	6.3	24	16
HILO2518-10R*-**	10	6.3	20	16
HILO2518-12R*-**	12	6.3	16	16
HILO2518-15R*-**	15	6.3	13	16
HILO2518-18R*-**	18	6.3	11	16
HILO2518-20R*-**	20	6.3	10	16
HILO1209AL-R22*-**	0.22	1.10	60	15
HILO1209AL-R33*-**	0.33	1.10	52	15
HILO1209AL-R47*-**	0.47	1.10	34	15
HILO1209AL-R56*-**	0.56	1.10	30	15
HILO1209AL-R68*-**	0.68	1.10	24	15
HILO1209AL-R82*-**	0.82	1.10	18	15
HILO1209AL-1R*-**	1	1.10	15	15
HILO1209A-1R5*-**	1.5	2.10	16	10
HILO1209A-1R8*-**	1.8	2.10	13	10
HILO1209A-2R2*-**	2.2	2.10	10	10

Inductance measured at 10 kHz, 1.0 V_{RMS}

* Inductance drop < 30% at specified Saturation Current

** Temperature rise < 40°C at Rating Current

CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types

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HILO1209A-3R3*-*	3.3	5.40	12	6
HILO1209A-4R7*-*	4.7	5.40	8	6
HILO1209A-5R6*-*	5.6	5.40	7	6
HILO1209A-6R8*-*	6.8	5.40	6	6
HILO1209A-8R2*-*	8.2	9.60	6	5
HILO1209A-10R*-*	10	9.60	5	5
HILO1209B-8R2*-*	8.2	9.5	8	6
HILO1209B-10R*-*	10	9.5	7	6
HILO1209B-12R*-*	12	9.5	6	6
HILO1209B-15R*-*	15	9.5	5	6
HILO1209B-18R*-*	18	9.5	4	6
HILO1209CL-R10*-*	0.10	0.45	75	40
HILO1209CL-R15*-*	0.15	0.45	72	40
HILO1209CL-R18*-*	0.18	0.45	70	40
HILO1209CL-R22*-*	0.22	0.45	60	40
HILO1209CL-R33*-*	0.33	0.45	40	40
HILO1209C-R47*-*	0.47	1.40	44	20
HILO1209C-R56*-*	0.56	1.40	40	20
HILO1209C-R68*-*	0.68	1.40	38	20
HILO1209C-R82*-*	0.82	1.40	35	20
HILO1209C-1R*-*	1	1.40	30	20
HILO1209C-1R2*-*	1.2	1.40	20	20
HILO1209C-1R5*-*	1.5	2.43	24	14
HILO1209C-1R8*-*	1.8	2.43	18	14
HILO1209C-2R2*-*	2.2	2.43	16	14
HILO1209C-3R3*-*	3.3	2.43	12	14
HILO1209C-4R7*-*	4.7	4.09	11	10
HILO1209C-5R6*-*	5.6	4.09	10	10
HILO1209C-6R8*-*	6.8	6.44	10	8
HILO1209C-8R2*-*	8.2	6.44	8	8
HILO1209C-10R*-*	10	6.44	7	8
HILO1005-R33*-*	0.33	0.82	20	14
HILO1005-R47*-*	0.47	0.82	16	14
HILO1005-R56*-*	0.56	0.82	15	14
HILO1005-R68*-*	0.68	0.82	13	14
HILO1005-R82*-*	0.82	0.82	10	14
HILO1005-1R*-*	1	3.04	12	8
HILO1005-1R5*-*	1.5	3.04	9	8
HILO1005-1R8*-*	1.8	3.04	7	8

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HILO1005-2R2*-*	2.2	3.04	7	8
HILO1005-3R3*-*	3.3	3.04	5	8
HILO1005-4R7*-*	4.7	6.22	4.5	4
HILO1005-5R6*-*	5.6	6.22	3.5	4
HILO1005-6R8*-*	6.8	6.22	3	4
HILO1005-8R2*-*	8.2	6.22	2.5	4
HILO1005-10R*-*	10	6.22	2	4
HILO0906-R33*-*	0.33	1.8	20	12
HILO0906-R47*-*	0.47	1.8	18	12
HILO0906-R56*-*	0.56	1.8	16	12
HILO0906-R68*-*	0.68	1.8	14	12
HILO0906-R82*-*	0.82	1.8	12	12
HILO0906-1R*-*	1	3.5	14	8
HILO0906-1R5*-*	1.5	3.5	9	8
HILO0906-1R8*-*	1.8	3.5	8	8
HILO0906-2R2*-*	2.2	6.0	8	6
HILO0906-3R3*-*	3.3	6.0	6	6
HILO0906-4R7*-*	4.7	8.8	5	4
HILO0906-5R6*-*	5.6	8.8	4	4
HILO0906-6R8*-*	6.8	8.8	3.2	4
HILO0906-8R2*-*	8.2	8.8	2.8	4
HILO0906-10R*-*	10	8.8	2.4	4

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VE PART NUMBER STRUCTURE KEY

EXAMPLE: HILO2518-R68S-1-T

INDUCTANCE (uH)

Examples:
R68 = 0.68uH
6R8 = 6.8uH
18R = 18uH

R = Decimal Point

TERMINATION

S	SnPb
R	RoHS

RELIABILITY

1	COTS/EM
2	Group A (Level M)
3	Qualification (Level M)
4	Group A (Level T)
5	Qualification (Level T)
8	Other

PACKAGING (Default Bulk)

B	Bulk
T	Tape and Reel

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