



## SHILO SERIES

### PLANAR INDUCTORS



ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

Current Rating (A)	DCR max (mΩ)	Inductance ref (uH)
4 to 75	0.21 to 9.6	0.10 to 10

### ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise @ 90°C:** < 40°C
- **Dielectric Withstanding Voltage:** 500 V<sub>RMS</sub>
- **Different electrical values available upon request**
- **Outgassing compliant per ASTM E595**  
(TML <1%, CVCM <0.1%)

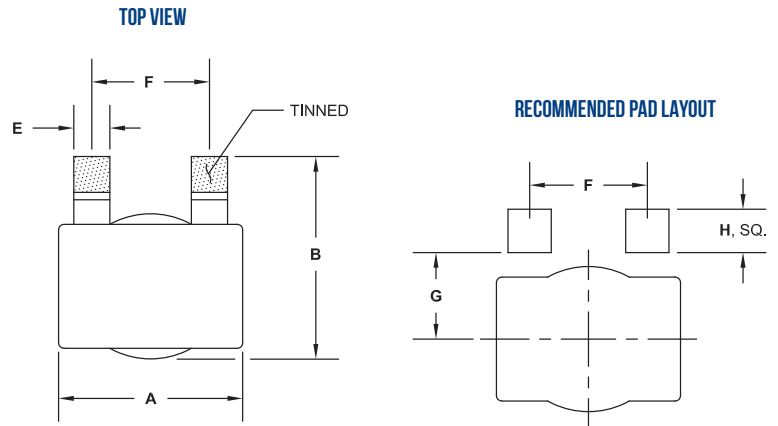
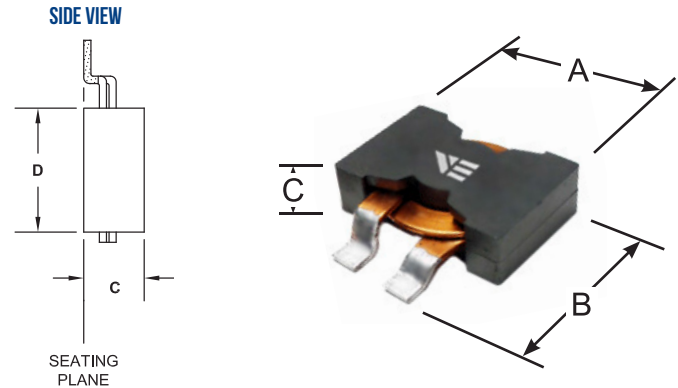
### FEATURES

- **Compact** ideal for automatic placement
- **HIGH Power Density, LOW Profile**
- **LOW Power Losses, HIGH Efficiency**
- Built to meet **MIL-STD-981** specifications
- **Terminations:** Tin-lead or RoHS compliant
- **Co-planarity:** ± 0.006
- **High reliability**
- **Other termination finishes available**

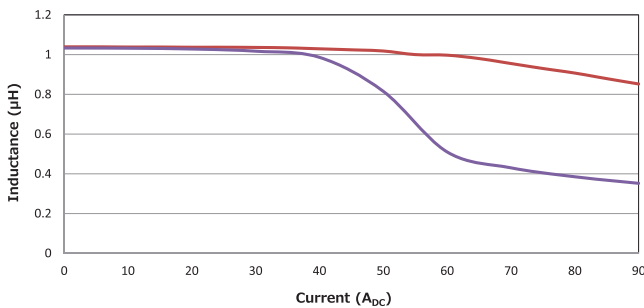
### APPLICATIONS

- 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

MARKINGS: LASER OR INK  
ALL DIMENSIONS: INCHES



I vs L  
(Current Rating vs Inductance)



Package	A max	B max	C max	D max	E (±.010)	F Ref.	G Ref.	H Ref.	Wt Ref.
SHILO2518	1.00	1.10	0.35	0.725	0.197	0.642	0.472	0.236	20g
SHILO1209A	0.49	0.50	0.22	0.365	0.071	0.310	0.260	0.085	8g
SHILO1209C	0.49	0.50	0.33	0.365	0.071	0.310	0.260	0.085	10g
SHILO1005	0.40	0.50	0.19	0.320	0.071	0.220	0.220	0.085	4g
SHILO0906	0.38	0.40	0.20	0.200	0.071	0.170	0.170	0.085	2g

### 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 (mΩ)	Saturation Current* (A <sub>DC</sub> )	Max Current Rating** (A <sub>RMS</sub> )
SHILO2518-R68*-*	0.68	0.80	85	75
SHILO2518-R82*-*	0.82	0.80	80	75
SHILO2518-1R0*-*	1.0	0.80	75	75
SHILO2518-1R2*-*	1.2	1.4	60	48
SHILO2518-1R5*-*	1.5	1.4	55	48
SHILO2518-1R8*-*	1.8	1.4	50	48
SHILO2518-2R2*-*	2.2	1.4	44	48
SHILO2518-3R3*-*	3.3	3.0	35	30
SHILO2518-4R7*-*	4.7	3.0	30	30
SHILO2518-5R6*-*	5.6	3.0	26	30
SHILO2518-6R8*-*	6.8	6.3	28	20
SHILO2518-8R2*-*	8.2	6.3	24	20
SHILO2518-10R*-*	10.0	6.3	20	20
SHILO1209A-R10*-*	0.10	0.21	70	40
SHILO1209A-R15*-*	0.15	0.21	60	40
SHILO1209A-R18*-*	0.18	0.21	45	40
SHILO1209A-R22*-*	0.22	1.10	60	15
SHILO1209A-R33*-*	0.33	1.10	52	15
SHILO1209A-R47*-*	0.47	1.10	34	15
SHILO1209A-R56*-*	0.56	1.10	30	15
SHILO1209A-R68*-*	0.68	1.10	24	15
SHILO1209A-R82*-*	0.82	1.10	18	15
SHILO1209A-1R0*-*	1.0	1.10	15	15
SHILO1209A-1R5*-*	1.5	1.10	16	10
SHILO1209A-1R8*-*	1.8	2.10	13	10
SHILO1209A-2R2*-*	2.2	2.10	10	10
SHILO1209A-3R3*-*	3.3	5.40	12	6
SHILO1209A-4R7*-*	4.7	5.40	8	6
SHILO1209A-5R6*-*	5.6	5.40	7	6
SHILO1209A-6R8*-*	6.8	5.40	6	6
SHILO1209A-8R2*-*	8.2	9.60	6	5
SHILO1209A-10R*-*	10.0	9.60	5	5
SHILO1209C-R10*-*	0.10	0.45	80	40
SHILO1209C-R15*-*	0.15	0.45	75	40
SHILO1209C-R18*-*	0.18	0.45	70	40
SHILO1209C-R22*-*	0.22	0.45	64	40
SHILO1209C-R33*-*	0.33	0.45	40	40
SHILO1209C-R47*-*	0.47	1.40	44	22
SHILO1209C-R56*-*	0.56	1.40	40	22

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

\*Inductance drop < 30% at specified Saturation Current

\*\* Current Rating at which temperature rise is approximately 40 °C

### CUSTOM DESIGNS & MODIFICATIONS:

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SHILO1209C-R68*-*-*	0.68	1.40	38	22
SHILO1209C-R82*-*-*	0.82	1.40	35	22
SHILO1209C-1R0*-*-*	1.0	1.40	30	22
SHILO1209C-1R5*-*-*	1.5	2.43	24	14
SHILO1209C-1R8*-*-*	1.8	2.43	18	14
SHILO1209C-2R2*-*-*	2.2	2.43	16	14
SHILO1209C-3R3*-*-*	3.3	2.43	12	14
SHILO1209C-4R7*-*-*	4.7	4.09	11	10
SHILO1209C-5R6*-*-*	5.6	4.09	10	10
SHILO1209C-6R8*-*-*	6.8	6.44	10	8
SHILO1209C-8R2*-*-*	8.2	6.44	8	8
SHILO1209C-10R*-*-*	10.0	6.44	7	8
SHILO1005-R10*-*-*	0.10	0.43	40	20
SHILO1005-R15*-*-*	0.15	0.43	28	20
SHILO1005-R18*-*-*	0.18	0.43	20	20
SHILO1005-R22*-*-*	0.22	0.43	16	20
SHILO1005-R33*-*-*	0.33	0.91	20	14
SHILO1005-R47*-*-*	0.47	0.91	16	14
SHILO1005-R56*-*-*	0.56	0.91	15	14
SHILO1005-R68*-*-*	0.68	0.91	13	14
SHILO1005-R82*-*-*	0.82	0.91	10	14
SHILO1005-1R0*-*-*	1.0	1.72	12	10
SHILO1005-1R5*-*-*	1.5	1.72	9	10
SHILO1005-1R8*-*-*	1.8	1.72	7	10
SHILO1005-2R2*-*-*	2.2	3.04	7	6
SHILO1005-3R3*-*-*	3.3	3.04	6	6
SHILO1005-4R7*-*-*	4.7	6.02	4.5	4
SHILO1005-5R6*-*-*	5.6	6.02	3.5	4
SHILO1005-6R8*-*-*	6.8	6.02	3	4
SHILO1005-8R2*-*-*	8.2	6.02	2.5	4
SHILO1005-10R*-*-*	10.0	6.02	2	4
SHILO0906-R10*-*-*	0.1	0.6	45	22
SHILO0906-R15*-*-*	0.15	0.6	30	22
SHILO0906-R18*-*-*	0.18	0.6	28	22
SHILO0906-R22*-*-*	0.22	0.6	22	22
SHILO0906-R33*-*-*	0.33	1.1	20	15
SHILO0906-R47*-*-*	0.47	1.1	15	15
SHILO0906-R56*-*-*	0.56	1.8	16	12
SHILO0906-R68*-*-*	0.68	1.8	14	12

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

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SHILO0906-R82*-*	0.82	1.8	12	12
SHILO0906-1R0*-*	1.0	3.5	15	8
SHILO0906-1R5*-*	1.5	3.5	9	8
SHILO0906-1R8*-*	1.8	3.5	8	8
SHILO0906-2R2*-*	2.2	6.0	8	6
SHILO0906-3R3*-*	3.3	6.0	6	6
SHILO0906-4R7*-*	4.7	8.8	5	4
SHILO0906-5R6*-*	5.6	8.8	4	4
SHILO0906-6R8*-*	6.8	8.8	3.2	4
SHILO0906-8R2*-*	8.2	8.8	2.8	4
SHILO0906-10R*-*	10	8.8	2.4	4

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

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### VE PART NUMBER STRUCTURE KEY

EXAMPLE: SHILO2518-R68S-1-T

#### INDUCTANCE (μH)

0.68  
R68

\*R = Decimal point

10μ = 10R

#### TERMINATION

<b>S</b>	SnPb
<b>G</b>	Gold

#### RELIABILITY

<b>1</b>	COTS
<b>2</b>	Group A
<b>3</b>	Class B
<b>4</b>	Class S
<b>5</b>	Qualification

#### PACKAGING (Default Bulk)

<b>B</b>	Bulk
<b>T</b>	Tape and Reel

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