



## SHCL3 SERIES MAXIMUM POWER DENSITY



ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

Inductance Range (mH)	DCR max (Ohms)	Current Rating (A)
0.027 - 17.0	0.006 - 2.8	1.7 - 50

ALL DIMENSIONS: INCHES

MARKINGS: LASER ETCH OR INK

### ELECTRICAL SPECIFICATIONS

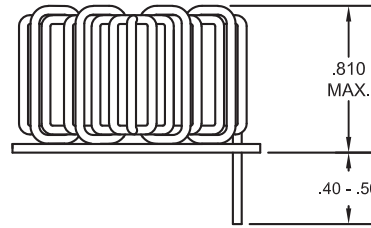
- **Operating Temperature:** -55°C to +180°C
- **Storage Temperature:** -55°C to +180°C
- **Temperature Rise:** See Performance Curves
- **Dielectric Withstanding Voltage:** 500 V<sub>RMS</sub>
- **Different electrical values available upon request**

### FEATURES

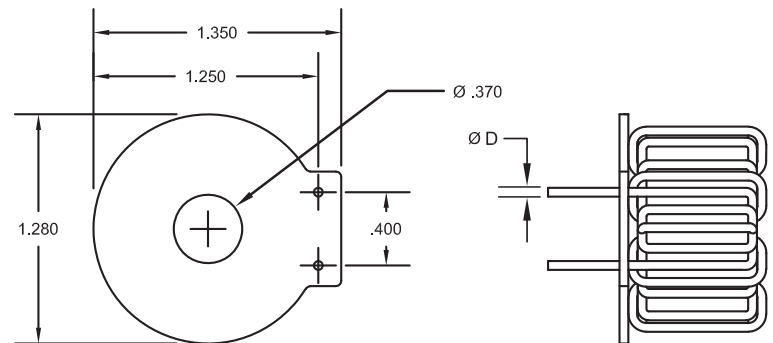
- **Terminations:** Tin-lead, Lead Free (RoHS), HMP required high temperature version
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- Built to meet **MIL-STD-981** specifications
- **NASA outgassing compliant per ASTM E595** (TML <1%, CVCM <0.1%)

### APPLICATIONS

- DC power choke
- Resonant inductor
- Input/Output filter
- Swinging inductor

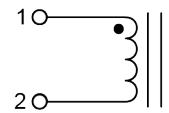


SIDE VIEW



BOTTOM VIEW

SIDE VIEW



SCHEMATIC

### CUSTOM DESIGNS & MODIFICATIONS:

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

## SHCL3 SERIES





### DATA TABLE

Vanguard P/N	Inductance ±10% (mH)	Inc. Inductance (mH)	DCR max (Ohms)	Rated Current (Adc) <sup>6/</sup>	Rated Current (Adc) <sup>7/</sup>	Lead Dimension "D"
SHCL3-270	0.027	0.015	0.006	24.9	50	0.082
SHCL3-430	0.043	0.031	0.015	17.6	35	0.065
SHCL3-680	0.068	0.033	0.015	14.0	35	0.058
SHCL3-101	0.10	0.067	0.02	12.6	22	0.058
SHCL3-231	0.23	0.120	0.04	9.2	15	0.051
SHCL3-611	0.65	0.380	0.11	5.6	9.9	0.041
SHCL3-102	1.0	0.670	0.18	4.0	7.1	0.033
SHCL3-182	1.8	1.3	0.45	2.7	4.5	0.026
SHCL3-252	2.5	1.8	0.60	2.2	4.0	0.024
SHCL3-502	5.0	3.5	1.0	1.7	3.0	0.021
SHCL3-752	7.5	5.4	1.6	1.4	2.4	0.019
SHCL3-103	10.0	6.7	1.8	1.3	2.2	0.019
SHCL3-153	15.0	10.3	2.6	1.0	1.8	0.017
SHCL3-173	17.0	11.3	2.8	1.0	1.7	0.017

1/ Inductance measured at 10 kHz, 0.1 V<sub>RMS</sub>

2/ DCR measured at room temperature

3/ Incremental inductance is the approximate value that the inductance will drop to when rated current is applied

4/ Maximum Weight: TBD

5/ All electrical values above are referenced at room temperature prior to burn-in, after burn-in the inductance can shift to approximately +/- 20%

6/ Based on 40°C temperature rise at an ambient temperature of 130°C. All burn-in testing is performed per this current value and MIL-PRF-27 Class T (170°C) operating temperature

7/ See performance curves for operating temperature versus applied current

### VE PART NUMBER STRUCTURE KEY

EXAMPLE: SHCL3-102KS-3-B

**INDUCTANCE (mH)**

**TOLERANCE (%)**

**TERMINATION**

**RELIABILITY**

**PACKAGING (Default Bulk)**

The first two digits are significant. The last digit specifies zeroes to follow:

<b>K</b>	± 10
----------	------

<b>S</b>	SnPb
<b>R</b>	Pure Tin

<b>2</b>	Group A MIL-STD-981
<b>3</b>	Group A+B MIL-STD-981
<b>4</b>	Group A+B+C MIL-STD-981
<b>7</b>	Other

<b>B</b>	Bulk
----------	------

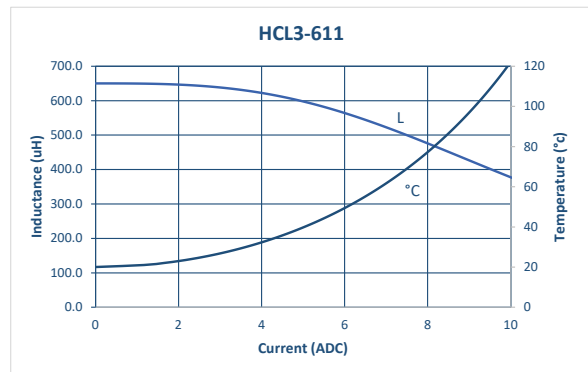
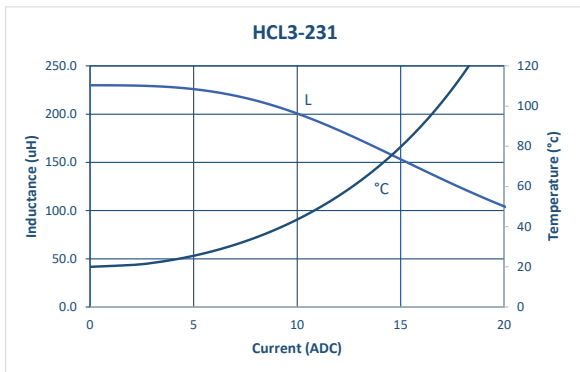
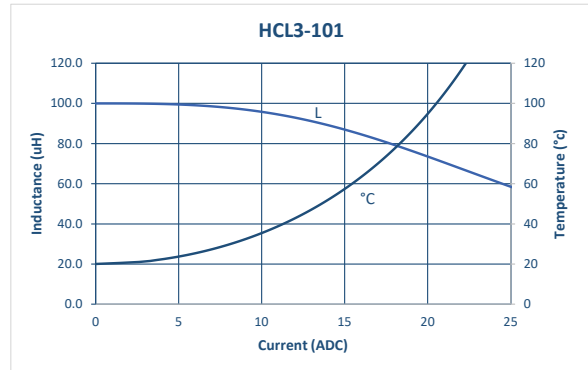
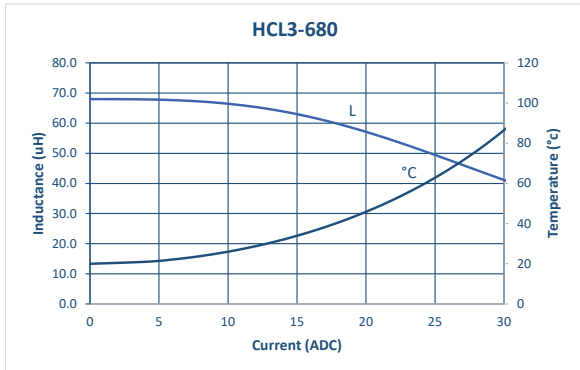
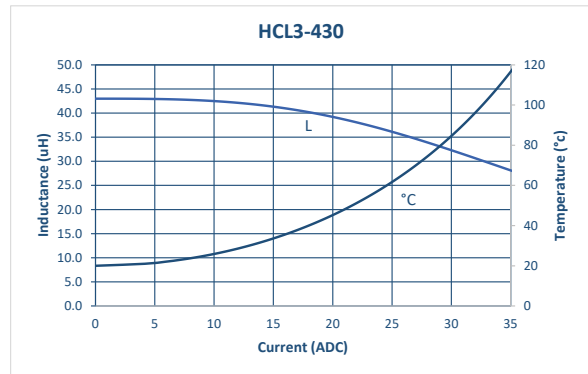
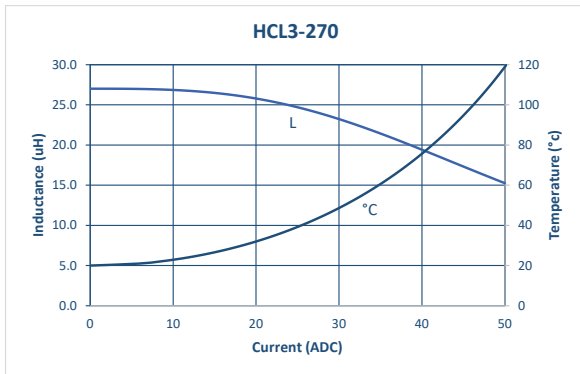
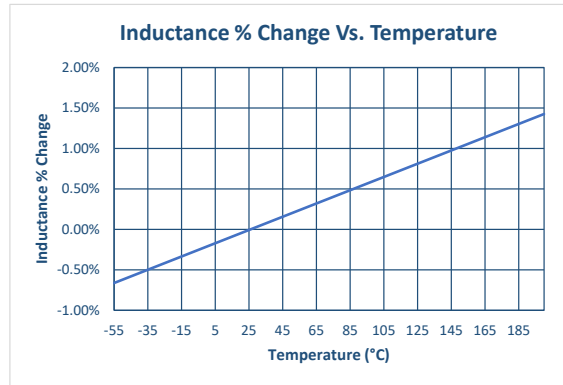
270 = 27uH  
102 = 1.0mH  
103 = 10mH

### CUSTOM DESIGNS & MODIFICATIONS:

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

## SHCL3 SERIES



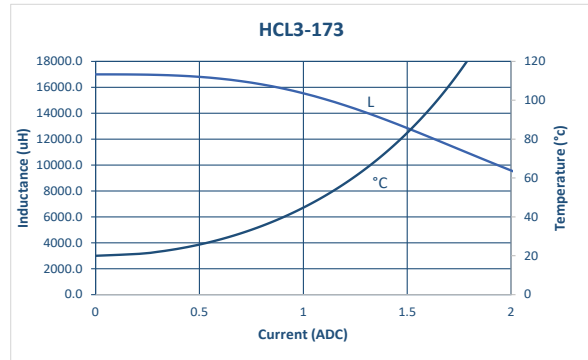
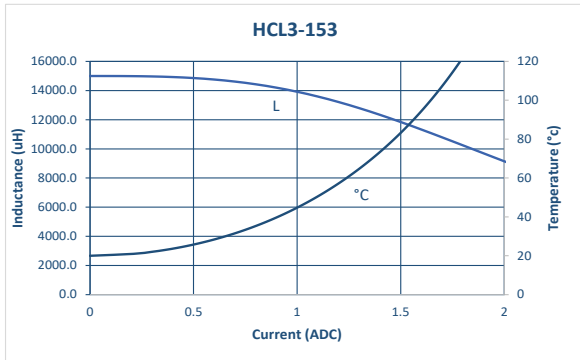
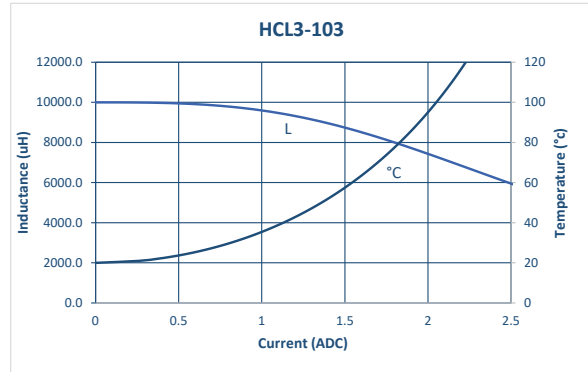
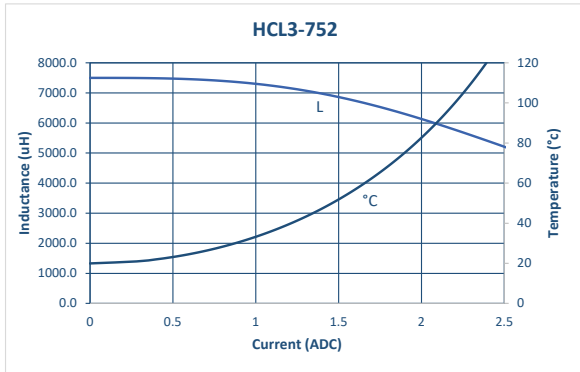
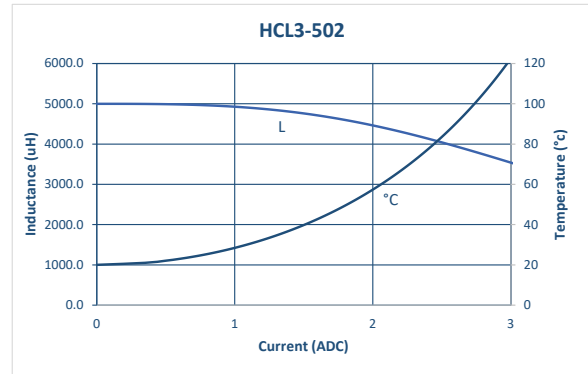
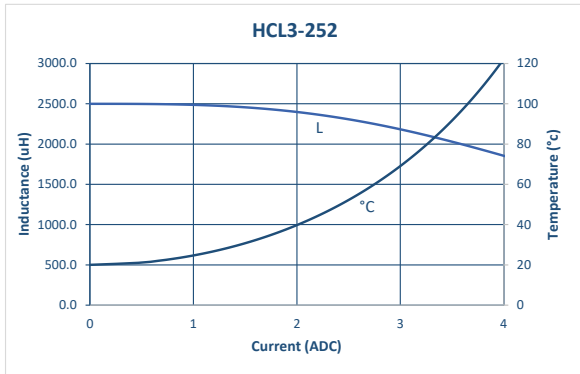
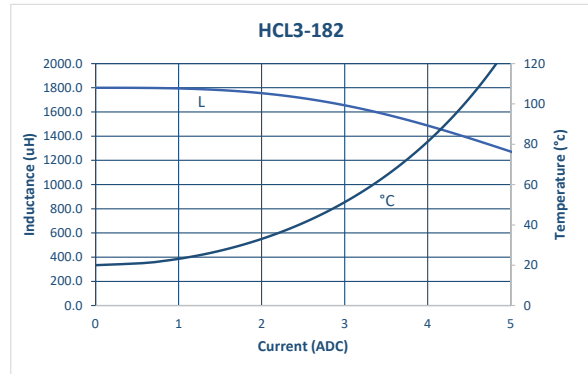
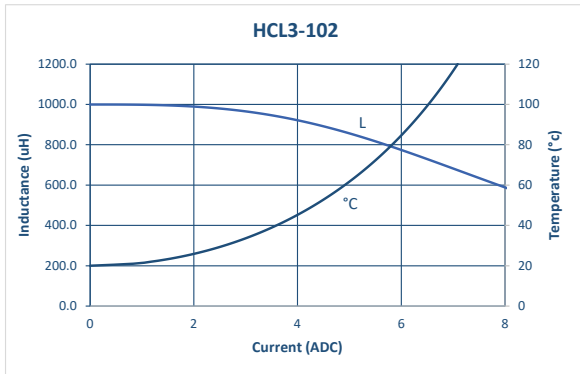


### CUSTOM DESIGNS & MODIFICATIONS:

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

## SHCL3 SERIES





#### CUSTOM DESIGNS & MODIFICATIONS:

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

## SHCL3 SERIES

