



SCMN5 SERIES

NANOCRYSTALLINE COMMON MODE CHOKE



ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +125°C
- **Storage Temperature:** -60°C to +130°C
- **Temperature Rise @ 100°C:** < 30°C
- **Dielectric Withstanding Voltage:** 1000 V_{RMS}
- **Overload Current:** 1.5 times rated current
- **Different electrical values available upon request**

FEATURES

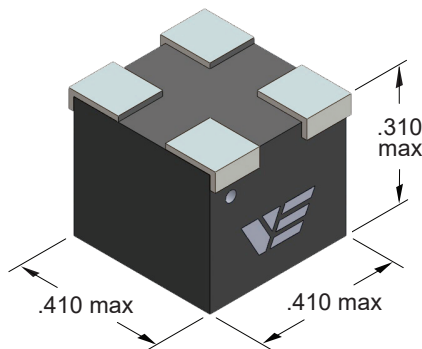
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** HMP solder, Lead Free (RoHS)
- **Resistance to Soldering Heat:** 265°C for 10 seconds
- **Welded Internal Connections** - no reflow risk
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available**
- **Ideally designed for GaN applications and higher switching frequencies**
- **Designed with nanocrystalline core for superior thermal stability and higher frequency operations**
- **NASA outgassing compliant per ASTM E595** (TML <1%, CVCM <0.1%)

ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

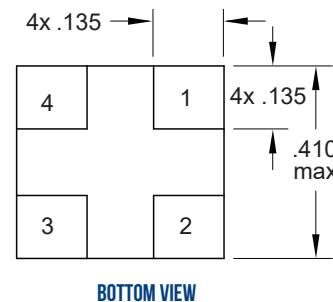
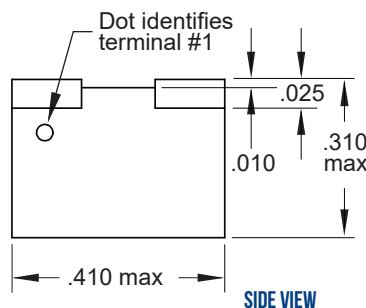
Inductance Range (mH)	DCR max (Ohms)	Current Rating (A)
0.110 - 4.9	0.017 - 1.352	4.9 - 0.55

ALL DIMENSIONS: INCHES

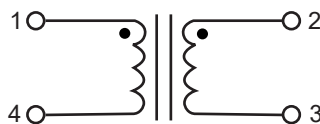
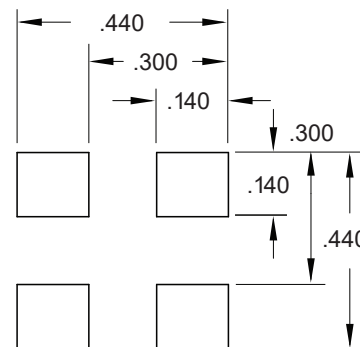


THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

MARKINGS: LASER ETCH OR INK



IN	MM
0.440	11.18
0.410	10.41
0.310	7.87
0.300	7.62
0.140	3.57
0.135	3.43
0.025	0.64
0.010	0.25



SCHEMATIC

RECOMMENDED MOUNTING PAD CIRCUIT SIDE

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





DATA TABLE

Vanguard P/N	Inductance @ 10kHz ± 30% (mH)	DCR Max (Ohms)	Rated Current (A)
SCMN5-113	0.11	0.017	4.90
SCMN5-273	0.27	0.032	3.50
SCMN5-383	0.38	0.050	2.90
SCMN5-503	0.50	0.070	2.40
SCMN5-723	0.72	0.100	2.00
SCMN5-104	1.0	0.150	1.60
SCMN5-154	1.5	0.300	1.20
SCMN5-204	2.0	0.430	1.00
SCMN5-264	2.6	0.600	0.82
SCMN5-304	3.0	0.820	0.70
SCMN5-364	3.6	1.150	0.59
SCMN5-394	3.9	1.210	0.58
SCMN5-454	4.5	1.300	0.56
SCMN5-494	4.9	1.350	0.55

1/ Inductance measured at 10 kHz, 0.10 V_{RMS}

2/ DCR measured at room ambient temperature (25°C)

VE PART NUMBER STRUCTURE KEY

INDUCTANCE (uH) (mH)

273 = 270 uH
154 = 1.5 mH
454 = 4.5 mH

EXAMPLE: SCMN5-273S-3-T

TERMINATION

S	SnPb
R	Pure Tin

RELIABILITY

2	Group A MIL-STD-981
3	Group A+B MIL-STD-981
7	Other

PACKAGING (Default Bulk)

B	Bulk
T	Tape and Reel

Tape and reel specs
Pcs. / reel maximum, (13") 430
Pitch between parts: 16 mm
Tape width: 24 mm

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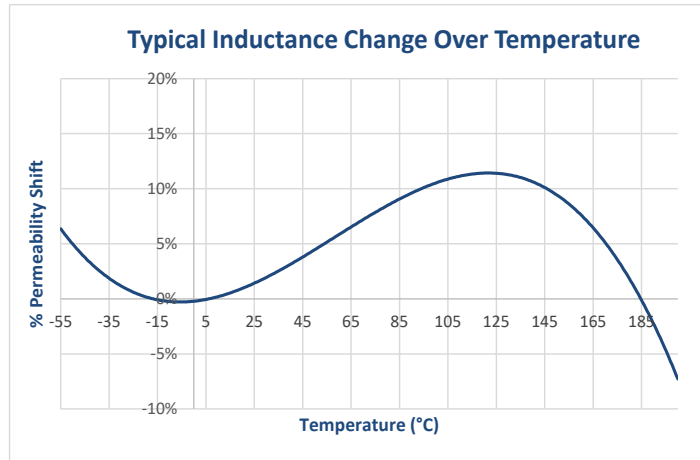
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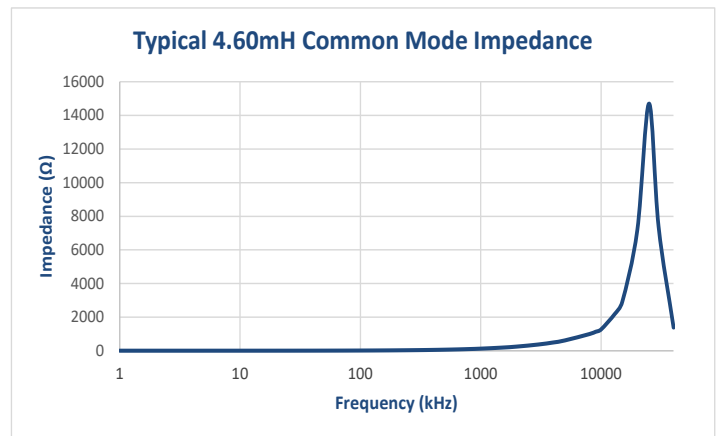
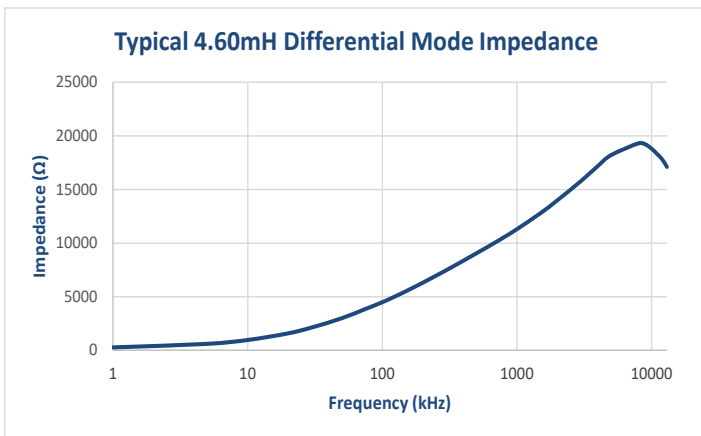
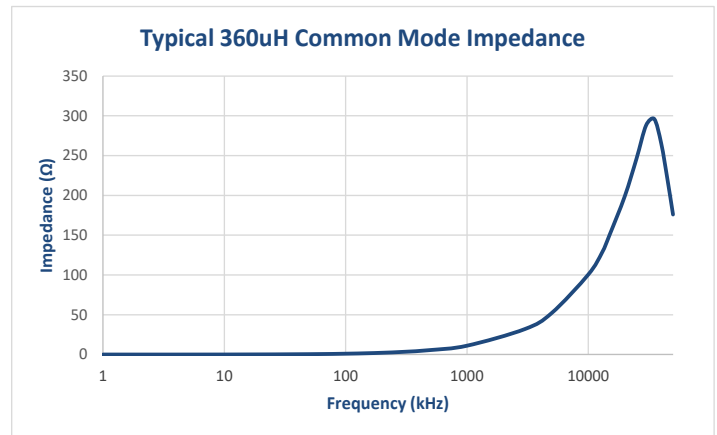
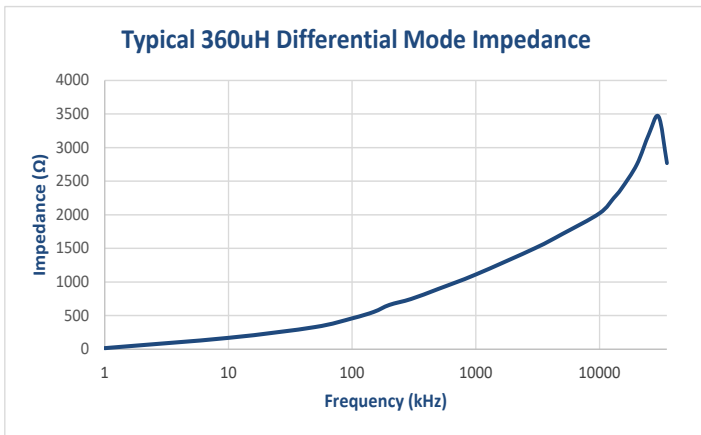


DATA CURVES

PERMEABILITY STABILITY CURVE VERSUS TEMPERATURE



COMMON MODE AND DIFFERENTIAL MODE
IMPEDANCE CURVES



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