



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

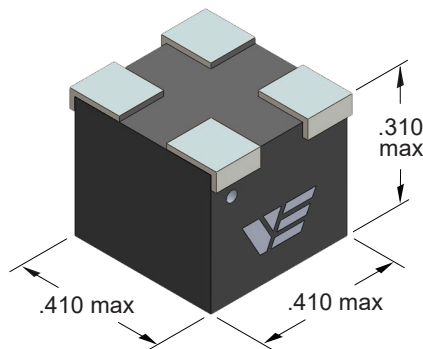
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** Tin-Lead
- **Resistance to Soldering Heat:** 265°C for 10 seconds
- **Welded Internal Connections** - no reflow risk
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available**
- **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

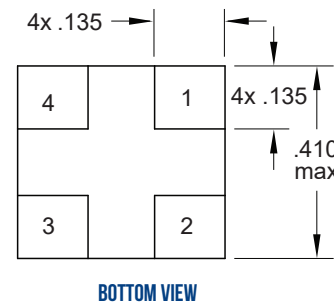
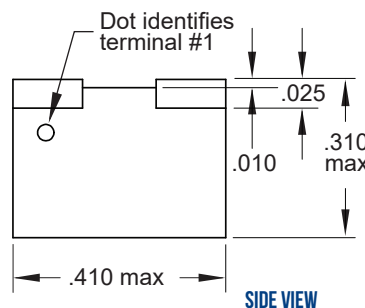
Inductance Range (mH)	DCR max (Ohms)	Current Rating (A)
0.110 - 4.9	0.017 - 1.352	4.9 - 0.55

ALL DIMENSIONS: INCHES

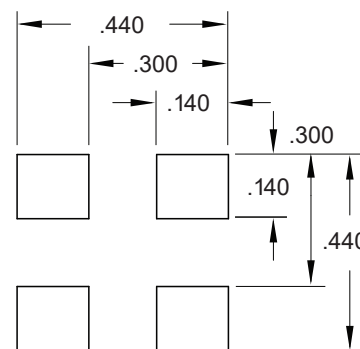


THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

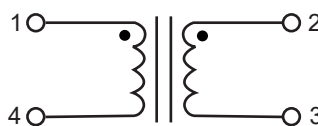
MARKINGS: LASER ETCH OR INK



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



RECOMMENDED MOUNTING PAD CIRCUIT SIDE



SCHEMATIC

SCMN5 SERIES



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
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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

Tape and Reel not available for Thru-Hole or Gull-Wing Packages

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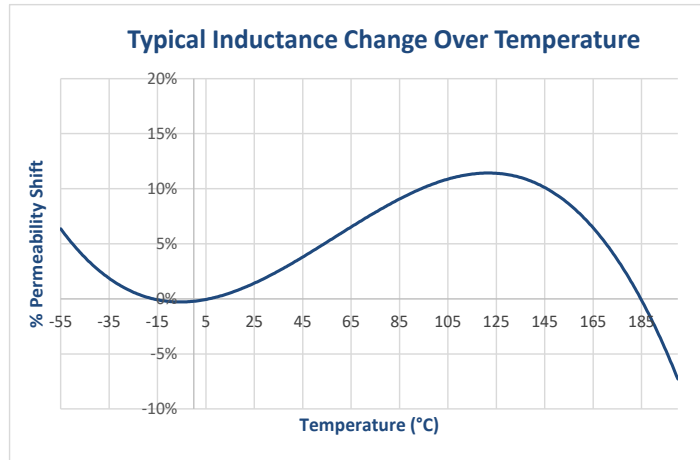
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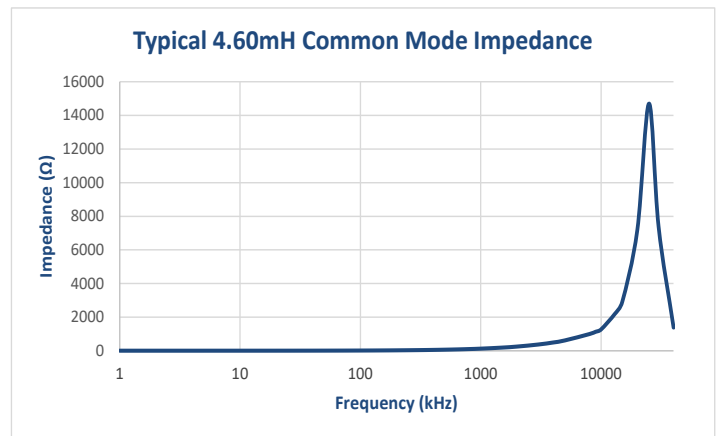
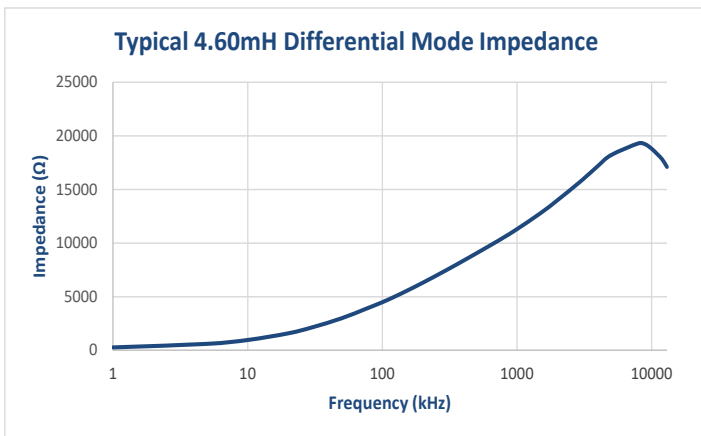
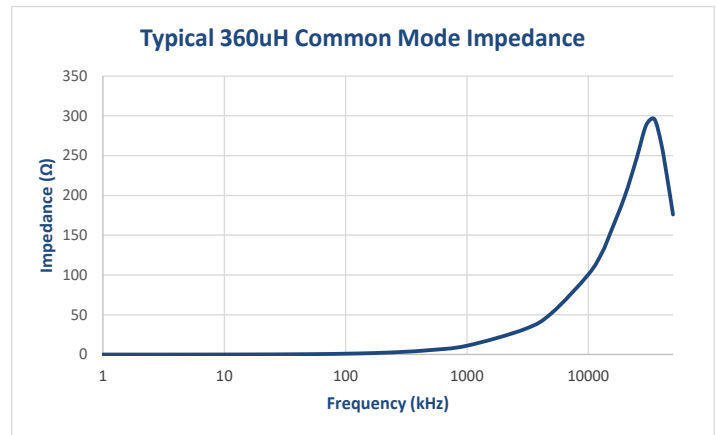
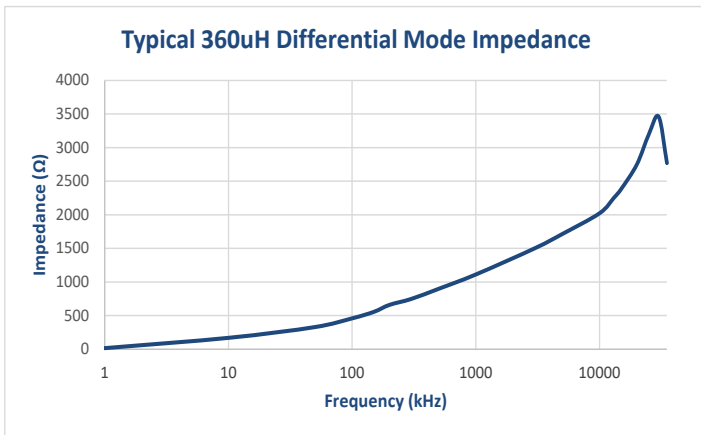


DATA CURVES

PERMEABILITY STABILITY CURVE VERSUS TEMPERATURE



COMMON MODE AND DIFFERENTIAL MODE
IMPEDANCE CURVES



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