



## SCMN7 SERIES NANOCRYSTALLINE COMMON MODE CHOKE



### ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +125°C
- **Storage Temperature:** -60°C to +130°C
- **Temperature Rise:** < 30°C
- **Inductance:** Measured at 10kHz, 0.10V
- **DCR:** Measured at room ambient (25°C)
- **Dielectric Withstanding Voltage:** 1000 V<sub>RMS</sub>
- **Overload Current:** 1.5 times rated current
- **Different electrical values available upon request**

### FEATURES

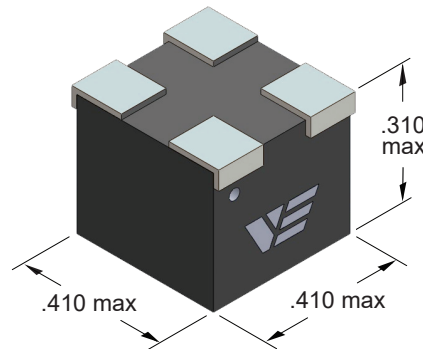
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** HMP solder, Lead Free (RoHS)
- **Resistance to Soldering Heat:** 265°C for 10 seconds
- **Welded Internal Connections** - no reflow risk
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- Built to meet **MIL-STD-981** specifications
- **NASA outgassing compliant per ASTM E595** (TML <1%, CVCM <0.1%)
- **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**

ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

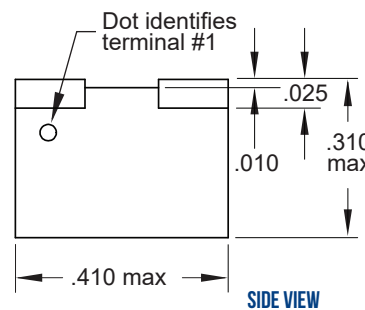
Inductance Range (mH)	DCR max (Ohms)	Current Rating (A)
0.07 - 10.7	0.004 - 0.262	7.45 - 0.99

ALL DIMENSIONS: INCHES

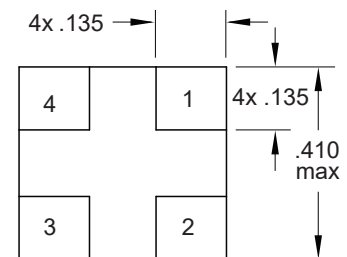


THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

MARKINGS: LASER ETCH OR INK

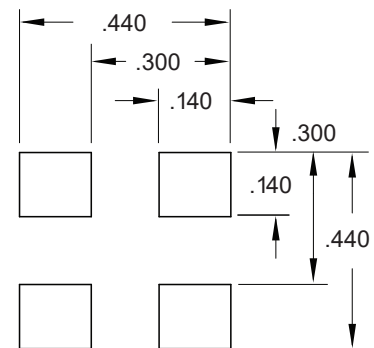


SIDE VIEW

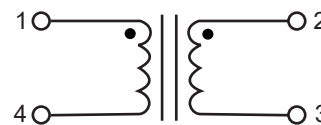


BOTTOM VIEW

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

### CUSTOM DESIGNS & MODIFICATIONS:

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





DATA TABLE

Vanguard P/N	Inductance @ 10kHz ± 40% (mH)	DCR Max (Ohms)	Rated Current (A)
SCMN7-702*-*.*	0.07	0.004	7.45
SCMN7-173*-*.*	0.17	0.005	6.75
SCMN7-303*-*.*	0.30	0.007	6.53
SCMN7-463*-*.*	0.46	0.011	5.20
SCMN7-673*-*.*	0.67	0.014	4.98
SCMN7-913*-*.*	0.91	0.020	4.10
SCMN7-124*-*.*	1.2	0.029	3.42
SCMN7-154*-*.*	1.5	0.042	2.86
SCMN7-194*-*.*	1.9	0.046	2.72
SCMN7-224*-*.*	2.2	0.081	2.06
SCMN7-274*-*.*	2.7	0.084	1.97
SCMN7-314*-*.*	3.1	0.086	1.89
SCMN7-364*-*.*	3.6	0.087	1.82
SCMN7-424*-*.*	4.2	0.088	1.76
SCMN7-474*-*.*	4.7	0.091	1.70
SCMN7-534*-*.*	5.3	0.118	1.47
SCMN7-604*-*.*	6.0	0.125	1.43
SCMN7-674*-*.*	6.7	0.164	1.25
SCMN7-744*-*.*	7.4	0.172	1.22
SCMN7-824*-*.*	8.2	0.181	1.19
SCMN7-904*-*.*	9.0	0.189	1.16
SCMN7-984*-*.*	9.8	0.251	1.01
SCMN7-105*-*.*	10.7	0.262	0.99

VE PART NUMBER STRUCTURE KEY

EXAMPLE: SCMN7-604S-3-T

INDUCTANCE (uH) (mH)

702 = 70 uH  
224 = 2.2 mH  
904 = 9.0 mH

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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