



## S42000 SERIES

### SIZE CODE 1 QPL: M27/356



ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

Inductance Range (mH)	DCR (Ohms)	Current Rating (Amps)
0.01 to 20	0.035 to 54	0.06 to 2.36

### ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise @ 90°C:** ≤ 30°C
- **Inductance at rated DC:** ≥ 80% of initial
- **Dielectric Withstanding Voltage:** 200 V<sub>RMS</sub>
- **Delta L:** ±2% over operating temperature range
- **Low Outgassing:** TML<1%
- **Different electrical values available upon request**

### FEATURES

- **Compact**, low profile, ideal for automatic placement
- Built to meet **MIL-STD-981** specifications
- **Terminations:** Tin-lead
- **Moisture, Shock and Immersion Resistant**
- **Magnetically shielded**
- **Other termination finishes available**
- **Order to Mil-spec part number or VE part number**

### APPLICATIONS

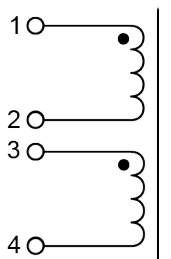
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers

#### MIL-STD-981 Testing:

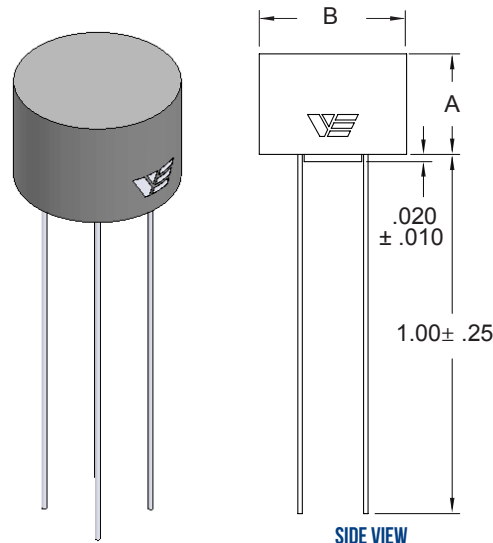
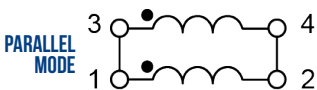
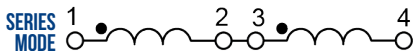
Add "-S" suffix for Class S Testing

Add "-B" suffix for Class B Testing

#### SCHEMATIC

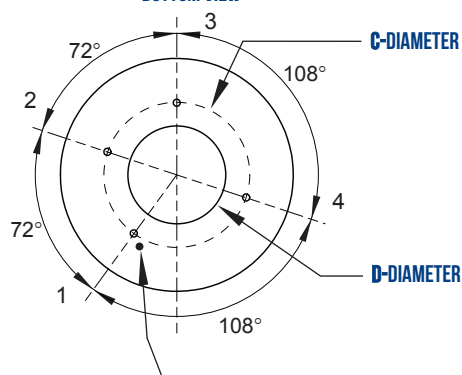


#### TYPICAL USER CONNECTIONS



SIZE CODE	A MAX	B MAX	C ± .010	D ± .010	TERMINAL DIAMETER
1 (IN)	.280	.410	.260	.160	.012±.002
1 (MM)	7.11	10.41	6.6	4.06	0.31

#### TERMINAL CONFIGURATION BOTTOM VIEW



Dot identifies terminal 1. Terminals are clockwise from pin 1.

MARKINGS: LASER ETCH OR INK

## S42000 SERIES

SIZE CODE 1





DATA TABLE

M27/356 Dash No.	Vanguard Part Number	Series Inductance (mH)*	Series DC Current max (Amps)	Series DCR (Ohms ±25%)	Parallel Inductance (mH)	Parallel DC Current max (Amps)	Parallel DCR (Ohms ±25%)
-01	S41416	20	0.06	54	5	0.12	13.5
-06	S42652	15	0.07	40.5	3.75	0.14	10.125
-11	S42657	10	0.08	27	2.5	0.16	6.75
-16	S42662	7.5	0.10	20.3	1.88	0.20	5.075
-21	S42667	5.0	0.12	13.5	1.25	0.24	3.375
-26	S42672	3	0.16	8.1	0.75	0.32	2.025
-31	S42677	2	0.19	5.4	0.5	0.38	1.35
-36	S42682	1	0.27	2.7	0.25	0.54	0.675
-41	S42687	0.750	0.31	2	0.1875	0.62	0.5
-46	S42692	0.500	0.38	1.3	0.125	0.76	0.325
-51	S42697	0.250	0.53	0.66	0.0625	1.06	0.165
-56	S42702	0.100	0.78	0.30	0.025	1.56	0.075
-61	S42707	0.040	1.18	0.14	0.01	2.36	0.035

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

\* Inductance tolerance +25/-5 %

**CUSTOM DESIGNS & MODIFICATIONS:**

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

**S42000 SERIES**  
SIZE CODE 1



