



S42000 SERIES

SIZE CODE 5 QPL: M27/356



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_{RMS}
- **Delta L:** ±2% over operating temperature range
- **Low Outgassing:** TML<1%
- **Different electrical values available upon request**

FEATURES

- 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

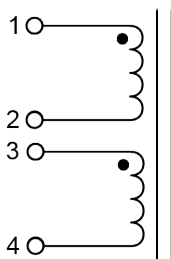
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers

MIL-STD-981 Testing:

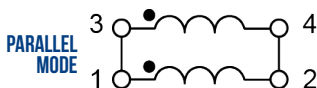
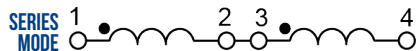
Add "-S" suffix for Class S Testing

Add "-B" suffix for Class B Testing

SCHEMATIC



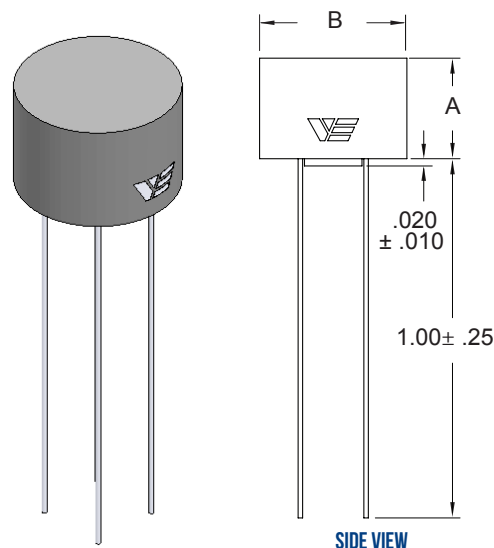
TYPICAL USER CONNECTIONS



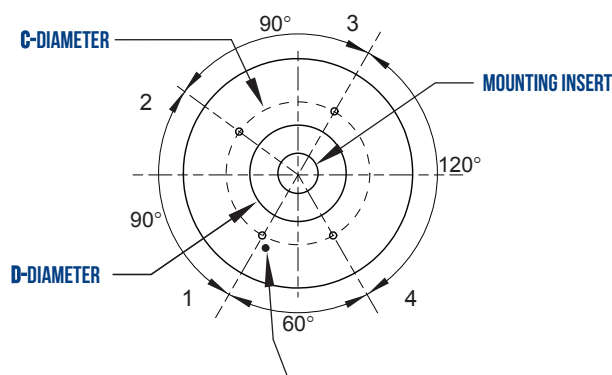
ALL PARTS AVAILABLE AS CLASS S OR CLASS B

MIL-STD-981

Inductance Range (mH)	DCR (Ohms)	Current Rating (Amps)
0.025 to 20	0.015 to 10.2	0.29 to 7.76



SIZE CODE	A MAX	B MAX	C ± .010	D ± .010	INSERT	TERMINAL DIAMETER
5 (IN)	.635	.950	.670	.570	.138-32 UNC-2B .200 MIN DEEP	.020±.002
5 (MM)	16.12	24.13	17.0	14.48		0.51

TERMINAL CONFIGURATION
BOTTOM VIEW

White dot identifies terminal. 1 Terminals are clockwise from pin 1.

MARKINGS: LASER ETCH OR INK

S42000 SERIES
PACKAGE A5



DATA TABLE

M27/356 Dash No.	Vanguard Part Number	Series Inductance (mH)*	Series DC Current max (Amps)	Series DCR (Ohms $\pm 25\%$)	Parallel Inductance (mH)	Parallel DC Current max (Amps)	Parallel DCR (Ohms $\pm 25\%$)
-05	S42651	20	0.29	10.2	5	0.58	2.55
-10	S42656	15	0.33	7.7	3.75	0.66	1.925
-15	S42661	10	0.40	5.1	2.5	0.80	1.275
-20	S42666	7.5	0.49	3.8	1.88	0.98	0.95
-25	S42671	5.0	0.6	2.6	1.25	1.2	0.65
-30	S42676	3	0.78	1.5	0.75	1.56	.375
-35	S42681	2	0.95	1	0.5	1.9	0.25
-40	S42686	1	1.3	0.5	0.25	2.6	0.125
-45	S42691	0.750	1.6	0.38	0.1875	3.2	0.095
-50	S42696	0.500	1.9	0.25	0.125	3.8	0.0625
-55	S42701	0.250	2.7	0.13	0.0625	5.4	0.0325
-60	S42706	0.100	3.88	0.06	0.025	7.76	0.015

Inductance measured at 10 kHz, 0.1 V_{RMS}

* Inductance tolerance +25/-5 %

CUSTOM DESIGNS & MODIFICATIONS:

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

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PACKAGE A5

