



## XT42000 SERIES

### SIZE CODE 2 M27 COTS



+200°C

Inductance Range (mH)	DCR (Ohms)	Current Rating (Amps)
0.01 to 20	0.018 to 29	0.10 to 4.06

### ELECTRICAL SPECIFICATIONS

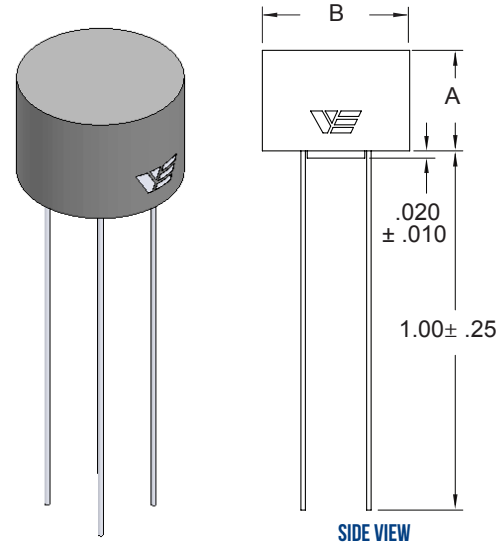
- **Operating Temperature:** -40°C to +200°C
- **Storage Temperature:** -45°C to +205°C
- **Temperature Rise:** < 30°C
- **Inductance at rated DC:** ≤ 30% of initial
- **Dielectric Withstanding Voltage:** 100 V<sub>RMS</sub>
- **Overload Current:** 1.5 times rated current
- **Different electrical values available upon request**

### FEATURES

- **Ideal** for geophysical applications in environments ≤ 200°C
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** High temperature solder
- **Welded Internal Connections** - no reflow risk
- **Moisture, Shock and Immersion Resistant**
- **Self-Shielding**
- **Other termination finishes available**

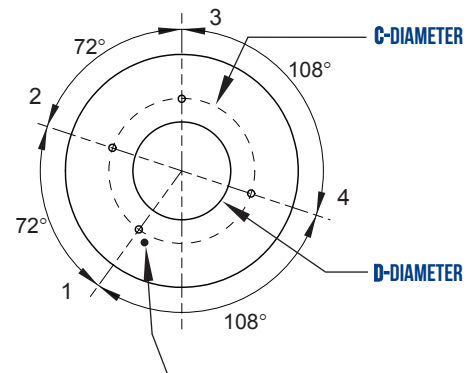
### APPLICATIONS

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



SIZE CODE	A MAX	B MAX	C ± .010	D ± .010	TERMINAL DIAMETER
2 (IN)	.340	.500	.350	.250	.012±.002
2 (MM)	8.63	12.7	8.89	6.35	.31

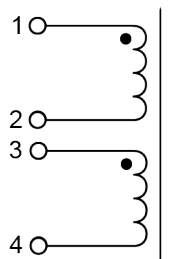
TERMINAL CONFIGURATION BOTTOM VIEW



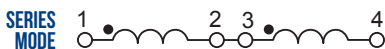
Dot identifies terminal 1. Terminals are clockwise from pin 1.

MARKINGS: LASER ETCH OR INK

SCHEMATIC



TYPICAL USER CONNECTIONS



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DATA TABLE

M27/356 Dash No. (For Ref.)	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%)
-02	XT42648	20	0.10	29	5	0.20	7.25
-07	XT42653	15	0.12	22	3.75	0.24	5.5
-12	XT42658	10	0.14	14.6	2.5	0.28	3.65
-17	XT42663	7.5	0.17	11	1.88	0.34	2.75
-22	XT42668	5.0	0.21	7.3	1.25	0.42	1.825
-27	XT42673	3	0.27	4.4	0.75	0.54	1.1
-32	XT42678	2	0.33	2.9	0.5	0.66	0.725
-37	XT42683	1	0.47	1.5	0.25	0.94	0.375
-42	XT42688	0.750	0.54	1	0.1875	1.08	0.25
-47	XT42693	0.500	0.66	0.66	0.125	1.32	0.165
-52	XT42698	0.250	0.93	0.33	0.0625	1.86	0.0825
-57	XT42703	0.100	1.35	0.17	0.025	2.7	0.043
-62	XT42708	0.040	2.03	0.07	0.01	4.06	0.018

CUSTOM DESIGNS & MODIFICATIONS:

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

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