



XT42000 SERIES

SIZE CODE 3 M27 COTS



+200°C

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_{RMS}
- **Overload Current:** 1.5 times rated current
- **Different electrical values available upon request**

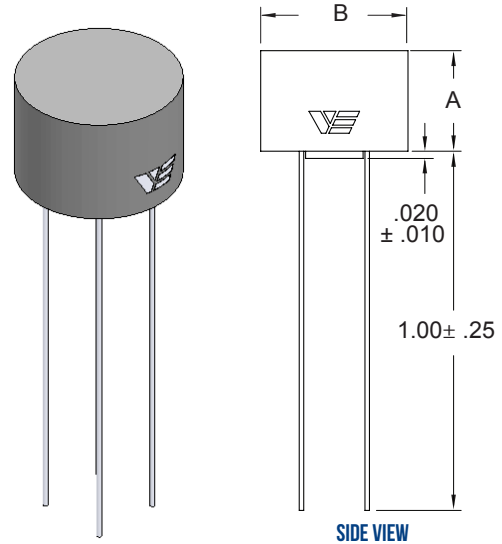
FEATURES

- **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**

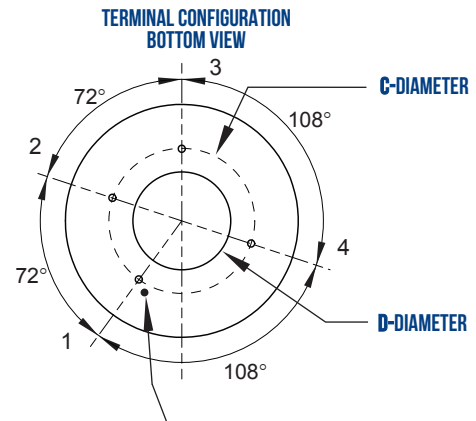
APPLICATIONS

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

Inductance Range (mH)	DCR (Ohms)	Current Rating (Amps)
0.01 to 20	0.015 to 20	0.14 to 5.36



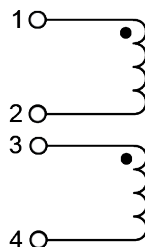
SIZE CODE	A MAX	B MAX	C ± .010	D ± .010	TERMINAL DIAMETER
3 (IN)	.415	.630	.440	.340	.016±.002
3 (MM)	10.54	16.0	11.17	8.64	0.41



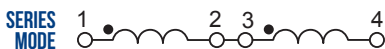
Dot identifies terminal 1. Terminals are clockwise from pin 1.

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%)
-03	XT42649	20	0.14	20	5	0.28	5.0
-08	XT42654	15	0.16	15	3.75	0.32	3.75
-13	XT42659	10	0.20	10	2.5	0.40	2.5
-18	XT42664	7.5	0.24	7.5	1.88	0.48	1.875
-23	XT42669	5.0	0.30	5	1.25	0.60	1.25
-28	XT42674	3	0.38	3	0.75	0.76	0.75
-33	XT42679	2	0.47	2	0.5	0.94	0.5
-38	XT42684	1	0.66	1	0.25	1.32	0.25
-43	XT42689	0.750	0.76	0.75	0.1875	1.52	0.1875
-48	XT42694	0.500	0.93	0.5	0.125	1.86	0.125
-53	XT42699	0.250	1.3	0.25	0.0625	2.6	0.0625
-58	XT41885	0.100	1.95	0.11	0.025	3.9	0.028
-63	XT42709	0.040	2.68	0.06	0.01	5.36	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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