



XT42000 SERIES

SIZE CODE 4 M27 COTS



+200°C

ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -40°C to +200°C
- **Storage Temperature:** -45°C to +205°C
- **Temperature Rise:** < 30°C of initial
- **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**

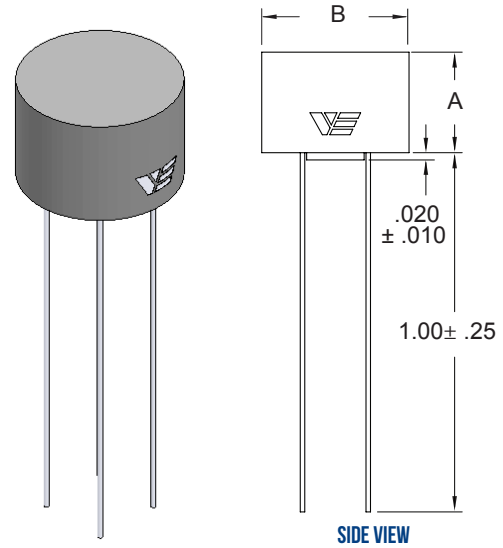
FEATURES

- **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**

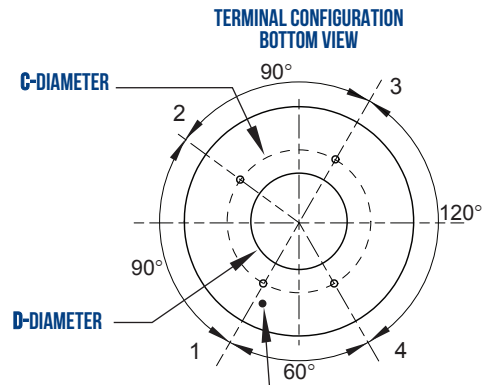
APPLICATIONS

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

Inductance Range (mH)	DCR (Ohms)	Current Rating (Amps)
0.025 to 20	0.018 to 12.4	0.22 to 6.16



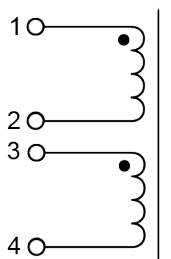
SIZE CODE	A MAX	B MAX	C ± .010	D ± .010	TERMINAL DIAMETER
4 (IN)	.500	.800	.560	.460	.016±.002
4 (MM)	12.70	20.32	14.22	11.68	0.41



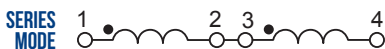
Dot identifies terminal 1. Terminals are clockwise from pin 1.

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%)
-04	XT42650	20	0.22	12.4	5	0.44	3.1
-09	XT42655	15	0.25	9.3	3.75	0.50	2.325
-14	XT42660	10	0.31	6.2	2.5	0.62	1.55
-19	XT42665	7.5	0.38	4.7	1.88	0.76	1.175
-24	XT42670	5.0	0.47	3.1	1.25	0.94	0.775
-29	XT42675	3	0.6	1.9	0.75	1.2	.475
-34	XT42680	2	0.74	1.3	0.5	1.48	0.325
-39	XT42685	1	1	0.62	0.25	2	0.155
-44	XT42690	0.750	1.2	0.47	0.1875	2.4	0.1175
-49	XT42695	0.500	1.47	0.31	0.125	2.94	0.0775
-54	XT42700	0.250	2.08	0.16	0.0625	4.16	0.063
-59	XT42705	0.100	3.08	0.07	0.025	6.16	0.018

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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