



## XT42000 SERIES

### SIZE CODE 1 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<sub>RMS</sub>
- **Overload Current:** 1.5 times rated current
- **Different electrical values available upon request**

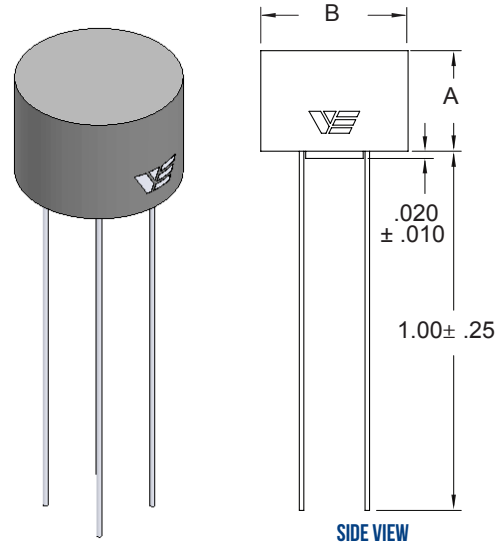
### FEATURES

- **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**

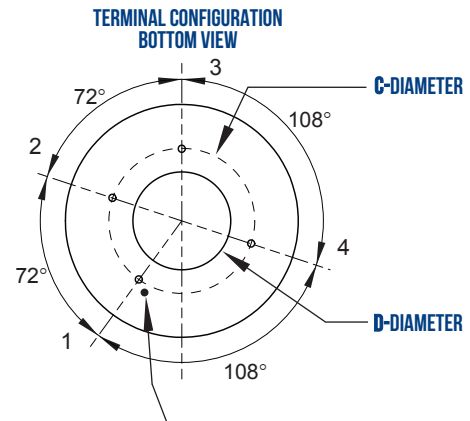
### APPLICATIONS

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

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



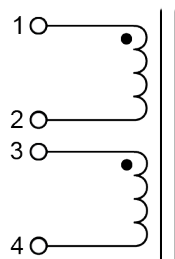
SIZE CODE	A MAX	B MAX	± .010	± .010	TERMINAL DIAMETER
1 (IN)	.280	.410	.260	.160	.012±.002
1 (MM)	7.11	10.41	6.6	4.06	0.31



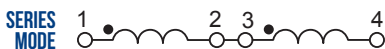
Dot identifies terminal 1. Terminals are clockwise from pin 1.

MARKINGS: LASER ETCH OR INK

### SCHEMATIC



### TYPICAL USER CONNECTIONS



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SIZE CODE 1





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%)
-01	XT41416	20	0.06	54	5	0.12	13.5
-06	XT42652	15	0.07	40.5	3.75	0.14	10.125
-11	XT42657	10	0.08	27	2.5	0.16	6.75
-16	XT42662	7.5	0.10	20.3	1.88	0.20	5.075
-21	XT42667	5.0	0.12	13.5	1.25	0.24	3.375
-26	XT42672	3	0.16	8.1	0.75	0.32	2.025
-31	XT42677	2	0.19	5.4	0.5	0.38	1.35
-36	XT42682	1	0.27	2.7	0.25	0.54	0.675
-41	XT42687	0.750	0.31	2	0.1875	0.62	0.5
-46	XT42692	0.500	0.38	1.3	0.125	0.76	0.325
-51	XT42697	0.250	0.53	0.66	0.0625	1.06	0.165
-56	XT42702	0.100	0.78	0.30	0.025	1.56	0.075
-61	XT42707	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

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