



# SENDUST TOROIDAL POWER INDUCTORS

## FEATURES

- \* Sendust Powdered Iron Toroidal Construction.
- \* Optimized For Use as High Frequency DC Chokes.
- \* Temp Rise Data: Ripple Currents  $\leq 10\%$  @ 100KHz
- \* Low Cost Self Lead Construction.
- \* Lower AC Losses Than Normal Powdered iron

**NOTES:** Temp Rise T1 & T2 are calculated.

- 1) Ln = Nominal Ind. @ 0.0Adc  
L1 = Nominal Ind. @ I1 Adc, T1 Temp Rise  
L2 = Nominal Ind. @ I2 Adc, T2 Temp Rise
- 2) I1 Represents a 1-20% Drop in Ln  
I2 Represents a 20-40% Drop in Ln

### ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -55°C TO +105°C

PART NUMBER	Ln (mH)	DCR (Ohm)	L1 (mH) @ I1 (dc A)	T1 (°C)	L2 (mH) @ I2 (dc A)	T2 (°C)	REF. DIMENSIONS IN INCHES				
							A	C	VT/B	HT/B	PIN OD
VTK-01001	10	0.024	10 1	12	8 2	47	.31	.16	.14	.29	.014
VTK-02001	20	0.030	18 1	9	13 2	36	.38	.18	.16	.36	.016
VTK-05001	50	0.054	42 1	10	31 2	39	.48	.21	.19	.46	.016
VTK-10001	100	0.102	82 1	12	57 2	46	.59	.25	.23	.57	.016
VTK-15001	150	0.091	127 1	6	96 2	24	.76	.32	.30	.74	.020
VTK-25001	250	0.171	210 1	9	154 2	33	.92	.32	.30	.90	.018
VTK-01002	10	0.008	9 2	6	7 4	23	.51	.24	.21	.48	.025
VTK-02002	20	0.012	17 2	5	12 4	20	.63	.28	.25	.59	.032
VTK-05002	50	0.032	37 2	17	22 4	66	.60	.26	.24	.58	.0225
VTK-10002	100	0.043	79 2	9	53 4	33	.95	.34	.31	.92	.0285
VTK-15002	150	0.053	117 2	8	80 4	30	1.06	.40	.36	1.03	.0285
VTK-25002	250	0.053	205 2	5	150 4	21	1.24	.56	.52	1.20	.032
VTK-01005	10	0.005	9 5	6	7 10	22	1.00	.39	.33	.94	.051
VTK-02005	20	0.006	16 5	6	12 10	22	1.11	.45	.39	1.05	.051
VTK-05005	50	0.010	36 5	9	20 10	36	1.11	.45	.39	1.05	.051
VTK-10005	100	0.021	80 5	8	57 10	33	1.67	.57	.51	1.61	.051
VTK-15005	150	0.026	124 5	8	90 10	30	1.85	.75	.69	1.79	.050
VTK-20005	200	0.030	154 5	9	108 10	35	1.85	.75	.69	1.79	.051
VTK-30005	312	0.037	258 5	11	194 10	32	2.18	1.00	.84	2.10	.051
VTK-02007	20	0.004	18 7	5	13 14	19	1.32	.63	.56	1.24	.064
VTK-05007	50	0.010	41 7	8	29 14	29	1.70	.60	.53	1.63	.064
VTK-10007	100	0.013	78 7	8	54 14	30	1.88	.78	.70	1.80	.064
VTK-15007	150	0.020	128 7	7	96 14	28	2.18	.95	.86	2.10	.064
VTK-20007	200	0.025	168 7	8	120 14	32	2.18	.95	.86	2.10	.064
VTK-05010	50	0.006	40 10	7	33 16	18	1.91	.81	.72	1.82	.064
VTK-25010	250	0.027	167 10	26	122 16	50	2.19	1.10	.85	2.10	.057
VTK-07012	70	0.009	60 12	14	55 16	20	2.21	.98	.88	2.12	.080
VTK-01025	12	0.0023	9.4 25	26	8.7 30	32	2.25	.95	.75	1.85	.100



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     L1 = Nominal Ind. @ I1 Adc, T1 Temp Rise  
     L2 = Nominal Ind. @ I2 Adc, T2 Temp Rise
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     I2 Represents a 20-40% Drop in L<sub>n</sub>

### ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -55°C TO +105°C

PART NUMBER	L <sub>n</sub> (mH)	Rate IDC	DCR (Ohm)	L1 @ I1 T1			L2 @ I2 T2			REF. DIMENSIONS IN INCHES				
				(mH)	(dc A)	(°C)	(mH)	(dc A)	(°C)	A	C	VT/B	HT/B	PIN OD
VTK-00001	10	7.37	0.010	9.0	1.7	15	8.0	3.3	40	.31	.16	.14	.29	.036
VTK-00002	25	5.20	0.020	22.5	1.00	15	20.0	1.9	40	.38	.18	.16	.36	.032
VTK-00003	50	3.95	0.035	45.0	0.70	15	40.0	1.3	40	.48	.21	.19	.46	.028
VTK-00004	75	3.50	0.045	67.5	0.60	15	60.0	1.1	40	.59	.25	.23	.57	.025
VTK-00005	100	3.15	0.055	90.0	0.50	15	80.0	0.95	40	.76	.32	.30	.74	.025
VTK-00006	150	2.35	0.100	135.0	0.40	15	120.0	0.75	35	.92	.32	.30	.90	.020
VTK-00007	200	1.98	0.140	180.0	0.35	15	160.0	0.65	35	.51	.24	.21	.48	.018
VTK-00008	250	1.85	0.160	225.0	0.30	15	200	0.60	35	.63	.28	.25	.59	.018
VTK-00009	330	1.70	0.190	297.0	0.27	15	264	0.50	35	.60	.26	.24	.58	.018

Specifications subject to change without notice.



# SENDUST TOROIDAL POWER INDUCTORS

## FEATURES

- \* Sendust Powdered Iron Toroidal Construction.
- \* Optimized For Use as High Frequency DC Chokes.
- \* Low core loss
- \* Low Cost Self Lead Construction.

## NOTES:

- Ln = Nominal Ind. @ 0.0Adc
- L1 = Nominal Ind. @ I1 Adc, T1 Temp Rise
- Ln & L1 = +/-15%

**ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -55°C TO +105°C**

PART NUMBER	Ln (mH)	I1 (dc A)	L1 (mH)	T1 (°C)	DCR (Ohm)	REF. DIMENSIONS IN INCHES				
						A	C	VT/B	HT/B	PIN OD
XTK-00020	10	12.5	6.5	30	0.007	.95	.55	.46	.88	.053
XTK-00021	12	12.0	8.0	30	0.008	.95	.55	.46	.88	.053
XTK-00022	15	11.2	9.5	30	0.008	.95	.55	.46	.88	.053
XTK-00023	18	10.8	11.2	30	0.009	.95	.55	.46	.88	.053
XTK-00024	22	10.3	13.5	30	0.010	.95	.55	.46	.88	.053
XTK-00025	27	9.8	16.0	30	0.011	.95	.55	.46	.88	.053
XTK-00026	33	7.4	21.5	30	0.020	.95	.55	.45	.87	.042
XTK-00027	39	7.1	25.0	30	0.022	.95	.55	.45	.87	.042
XTK-00028	47	6.7	29.0	30	0.024	.95	.55	.45	.87	.042
XTK-00029	56	6.4	34.0	30	0.026	.95	.55	.45	.87	.042
XTK-00030	68	4.9	45.5	30	0.046	.95	.55	.44	.86	.034
XTK-00031	100	4.4	64.0	30	0.056	.95	.55	.44	.86	.034
XTK-00032	120	3.3	84.0	30	0.100	.95	.55	.44	.86	.027
XTK-00033	150	3.1	102.0	30	0.110	.95	.55	.44	.86	.027
XTK-00034	180	3.8	106.0	30	0.075	.95	.55	.48	.90	.034
XTK-00035	220	3.6	125.0	30	0.085	.95	.55	.48	.90	.034
XTK-00036	270	3.4	150.0	30	0.095	.95	.55	.48	.90	.034
XTK-00037	330	3.3	176.0	30	0.100	.95	.55	.48	.90	.034
XTK-00038	390	2.5	235.0	30	0.180	.95	.55	.46	.88	.027
XTK-00039	470	2.3	276.0	30	0.190	.95	.55	.46	.88	.027
XTK-00040	560	2.2	320.0	30	0.210	.95	.55	.46	.88	.027
XTK-00041	680	2.1	375.0	30	0.230	.95	.55	.49	.91	.027
XTK-00042	820	2.0	440.0	30	0.260	.95	.55	.49	.91	.027
XTK-00043	1000	1.9	520.0	30	0.280	.95	.55	.49	.91	.027

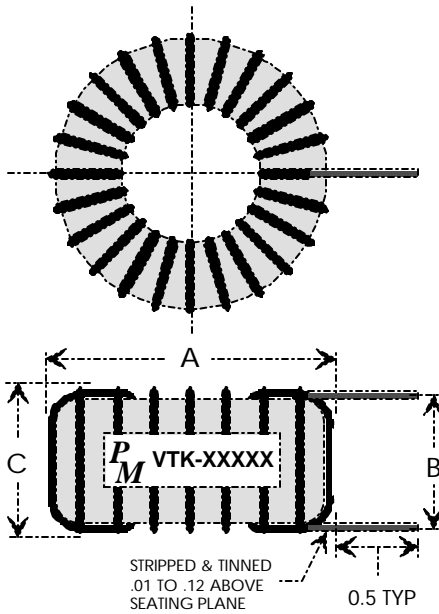
**VTK-xxxxx FOR VERTICAL & HTK-xxxxx FOR HORIZONTAL**

# SENDUST TOROIDAL POWER INDUCTORS

## VTK-XXXX MECHANICAL

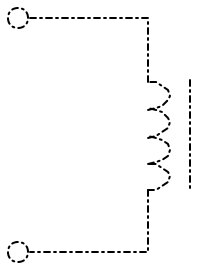
## HTK-XXXX MECHANICAL

### VTK-XXXXX OUTLINE VERTICAL MOUNT

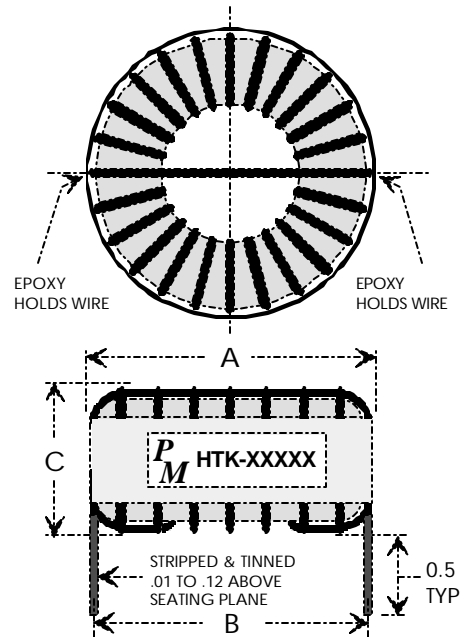


### SCHEMATIC

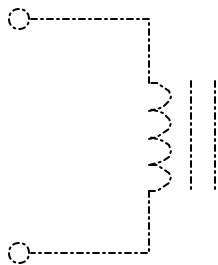
**HORIZONTAL OR VERTICAL MOUNT:**  
Table Part Numbers are Vertical Mount.  
Change the "V" to "H" for Horizontal Mount.  
Example:  
VTK-05001 = Vertical Mount 50uH, 1.0Adc  
HTK-05001 = Horizontal Mount 50uH, 1.0Adc



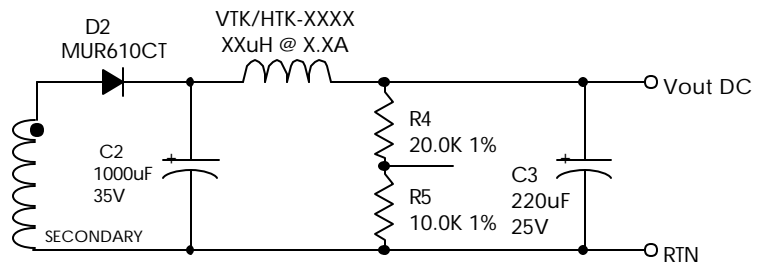
### HTK-XXXXX OUTLINE HORIZONTAL MOUNT



### SCHEMATIC



### APPLICATION



VARIATIONS AVAILABLE. FOR INTERMEDIATE VALUES AND/ OR CUSTOM DESIGNS PLEASE CONSULT THE FACTORY.

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