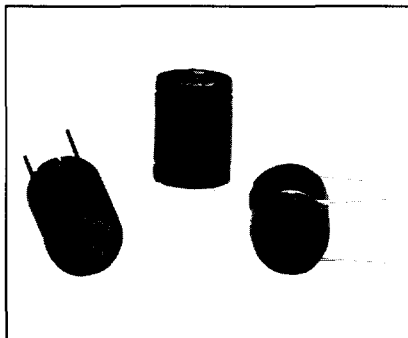


## Inductors

*Variable, Subminiature, Shielded*



### FEATURES

- Subminiature shielded adjustable inductor.
- High Q values.
- Vertical or horizontal mounting.
- Unitized epoxy-molded construction.
- Inductance range is  $.10\mu\text{H}$  to  $100,000\mu\text{H}$ .
- $.300$ " [ $7.62\text{mm}$ ] diameter by  $.400$ " [ $10.16\text{mm}$ ] length.
- Printed board mounting facilitated by  $.200$ " [ $5.08\text{mm}$ ] grid spacing.
- Unit has shield construction to allow maximum density packaging.
- Accommodates close inductance adjustments in high density circuits that demand exceptional stability and high "Q" in the smallest size available.

### ELECTRICAL SPECIFICATIONS

**Adjustable Inductance Range:** Tunable range;  $\pm 5\%$  for  $.10\mu\text{H}$  to  $1\mu\text{H}$ .  $\pm 10\%$  for  $1.2\mu\text{H}$  to  $100,000\mu\text{H}$ .

**Dielectric Strength:** 840V RMS at sea level.

**Working Voltage:** 300 VDC.

**Rated Current:** Based on temperature rise not to exceed  $15^\circ\text{C}$  at  $+90^\circ\text{C}$  ambient.

**Incremental Current:** The DC current required to cause a five percent reduction in the nominal inductance value.

**Operating Temperature:**  $-55^\circ\text{C}$  to  $+105^\circ\text{C}$ .

### MECHANICAL SPECIFICATIONS

**Tuning Tool:** Use Vishay Dale No. 642866-01.

**Torque:**  $.40$  to 6 inch-ounces.

**Terminal Pull:** 3 pounds.

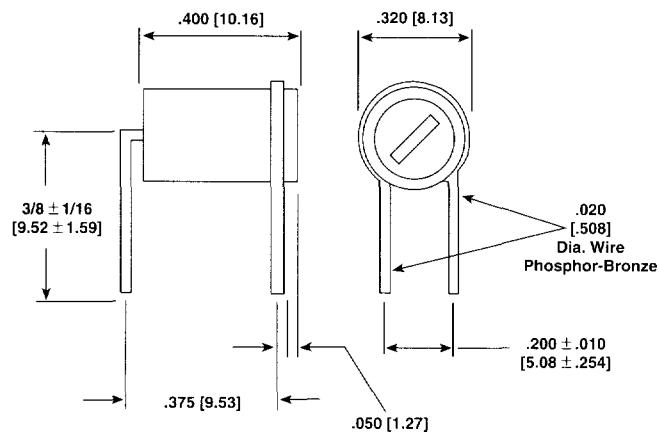
### DENSITY SPECIFICATIONS

**Weight:** 1.5 grams maximum.

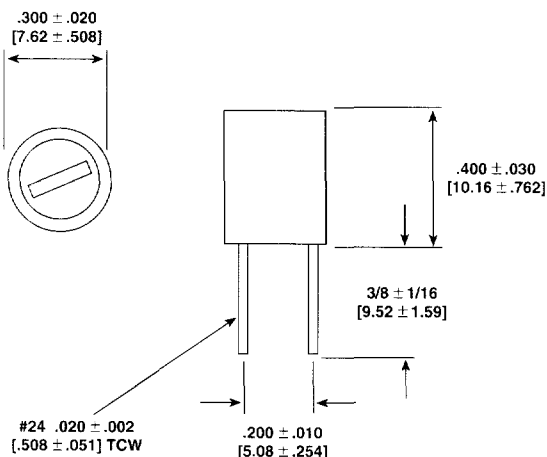
**Shielding:** 3% coupling maximum when two units are tested side by side.

### DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

#### Horizontal Style



#### Vertical Style



Tuning Tool P/N 642866-01



**STANDARD ELECTRICAL SPECIFICATIONS**

IND. ( $\mu$ H)	TOL.	TUNABLE RANGE	Q MIN.	TEST FREQ.	SELF-RESONANT	DCR (Ohms)	RATED DC CURRENT (mA)	INCREMENTAL CURRENT* (mA)
				MIN. (MHz)	FREQ. (MHz)			
.10	$\pm 5\%$	$\pm 5\%$	45	25	250	.030	1510	—
.12	$\pm 5\%$	$\pm 5\%$	45	25	250	.030	1450	—
.15	$\pm 5\%$	$\pm 5\%$	45	25	250	.030	1400	—
.18	$\pm 5\%$	$\pm 5\%$	45	25	250	.035	1370	—
.22	$\pm 5\%$	$\pm 5\%$	45	25	250	.035	1340	—
.27	$\pm 5\%$	$\pm 5\%$	51	25	250	.040	1300	—
.33	$\pm 5\%$	$\pm 5\%$	51	25	250	.040	1260	—
.39	$\pm 5\%$	$\pm 5\%$	51	25	210	.045	1240	—
.47	$\pm 5\%$	$\pm 5\%$	51	25	184	.045	1200	—
.56	$\pm 5\%$	$\pm 5\%$	51	25	176	.050	1160	—
.68	$\pm 5\%$	$\pm 5\%$	51	25	152	.055	1100	—
.82	$\pm 5\%$	$\pm 5\%$	55	25	144	.060	1040	—
1.0	$\pm 5\%$	$\pm 5\%$	55	25	128	.070	986	—
1.2	$\pm 10\%$	$\pm 10\%$	58	7.9	136	.085	968	—
1.5	$\pm 10\%$	$\pm 10\%$	64	7.9	124	.100	893	—
1.8	$\pm 10\%$	$\pm 10\%$	74	7.9	108	.110	853	—
2.2	$\pm 10\%$	$\pm 10\%$	71	7.9	96	.120	817	—
2.7	$\pm 10\%$	$\pm 10\%$	71	7.9	83.2	.125	800	—
3.3	$\pm 10\%$	$\pm 10\%$	58	7.9	74.4	.165	696	—
3.9	$\pm 10\%$	$\pm 10\%$	58	7.9	69.6	.180	659	—
4.7	$\pm 10\%$	$\pm 10\%$	61	7.9	63.2	.245	571	—
5.6	$\pm 10\%$	$\pm 10\%$	61	7.9	57.6	.265	550	—
6.8	$\pm 10\%$	$\pm 10\%$	55	7.9	50.4	.330	493	—
8.2	$\pm 10\%$	$\pm 10\%$	61	7.9	48.0	.460	417	—
10	$\pm 10\%$	$\pm 10\%$	58	7.9	43.2	.640	359	—
12	$\pm 10\%$	$\pm 10\%$	77	2.5	29.6	.800	316	—
15	$\pm 10\%$	$\pm 10\%$	77	2.5	23.0	.865	301	—
18	$\pm 10\%$	$\pm 10\%$	74	2.5	19.0	.940	292	—
22	$\pm 10\%$	$\pm 10\%$	80	2.5	17.0	1.03	267	—
27	$\pm 10\%$	$\pm 10\%$	74	2.5	16.5	1.18	243	—
33	$\pm 10\%$	$\pm 10\%$	77	2.5	14.9	1.30	231	—
39	$\pm 10\%$	$\pm 10\%$	77	2.5	14.1	1.41	223	—
47	$\pm 10\%$	$\pm 10\%$	71	2.5	11.9	1.61	203	—
56	$\pm 10\%$	$\pm 10\%$	74	2.5	11.1	2.08	191	—
68	$\pm 10\%$	$\pm 10\%$	67	2.5	10.3	2.20	185	—
82	$\pm 10\%$	$\pm 10\%$	67	2.5	9.35	2.42	174	—
100	$\pm 10\%$	$\pm 10\%$	61	2.5	8.40	2.15	180	140
120	$\pm 10\%$	$\pm 10\%$	61	.79	4.50	2.38	171	130
150	$\pm 10\%$	$\pm 10\%$	58	.79	4.16	2.52	167	125
180	$\pm 10\%$	$\pm 10\%$	61	.79	3.92	2.88	156	110
220	$\pm 10\%$	$\pm 10\%$	61	.79	3.70	3.18	145	95
270	$\pm 10\%$	$\pm 10\%$	64	.79	3.36	3.50	141	90
330	$\pm 10\%$	$\pm 10\%$	64	.79	2.83	4.80	121	75
390	$\pm 10\%$	$\pm 10\%$	64	.79	2.76	5.44	113	70
470	$\pm 10\%$	$\pm 10\%$	64	.79	2.58	5.90	109	65
560	$\pm 10\%$	$\pm 10\%$	61	.79	2.34	6.30	105	60
680	$\pm 10\%$	$\pm 10\%$	64	.79	2.18	7.20	97	57
820	$\pm 10\%$	$\pm 10\%$	58	.79	2.00	8.00	94	55
1000	$\pm 10\%$	$\pm 10\%$	64	.79	1.88	12.0	76	43
1200	$\pm 10\%$	$\pm 10\%$	61	.25	1.76	13.5	72	40
1500	$\pm 10\%$	$\pm 10\%$	58	.25	1.52	16.5	65	37
1800	$\pm 10\%$	$\pm 10\%$	64	.25	1.44	18.0	62	35
2200	$\pm 10\%$	$\pm 10\%$	64	.25	1.36	20.5	58	34
2700	$\pm 10\%$	$\pm 10\%$	61	.25	1.20	22.5	56	33
3300	$\pm 10\%$	$\pm 10\%$	58	.25	1.12	42.0	41	25
3900	$\pm 10\%$	$\pm 10\%$	55	.25	1.02	47.5	38	23
4700	$\pm 10\%$	$\pm 10\%$	55	.25	.994	53.0	36	20
5600	$\pm 10\%$	$\pm 10\%$	51	.25	.744	62.5	33	19
6800	$\pm 10\%$	$\pm 10\%$	48	.25	.632	69.5	32	18
8200	$\pm 10\%$	$\pm 10\%$	51	.25	.600	75.0	31	17
10000	$\pm 10\%$	$\pm 10\%$	45	.25	.560	100.0	26	15
12000	$\pm 10\%$	$\pm 10\%$	45	.079	.400	64	33	19
15000	$\pm 10\%$	$\pm 10\%$	45	.079	.304	84	29	17
18000	$\pm 10\%$	$\pm 10\%$	45	.079	.288	93	27	16
22000	$\pm 10\%$	$\pm 10\%$	45	.079	.256	104	26	15
27000	$\pm 10\%$	$\pm 10\%$	45	.079	.240	173	20	13
33000	$\pm 10\%$	$\pm 10\%$	45	.079	.216	187	19	12
39000	$\pm 10\%$	$\pm 10\%$	45	.079	.208	220	18	11
47000	$\pm 10\%$	$\pm 10\%$	45	.079	.200	253	17	10
56000	$\pm 10\%$	$\pm 10\%$	45	.079	.192	285	16	9
68000	$\pm 10\%$	$\pm 10\%$	39	.079	.160	311	15	8
82000	$\pm 10\%$	$\pm 10\%$	39	.079	.152	385	14	7
100000	$\pm 10\%$	$\pm 10\%$	39	.079	.136	420	13	6

\*Incremental Current: The DC current required to cause a 5% reduction in the nominal inductance value.

**PART MARKING**

- Vishay Dale
- WVLM
- Value
- Date Code

**HOW TO ORDER**

<b>WVLM</b>	<b>.10<math>\mu</math>H</b>	<b><math>\pm 5\%</math></b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE