

# MILITARY PRODUCTS

## Dual Winding Thru-hole Power Inductors M27/356 - Series 42,000 Qualified Product Listed MIL-PRF-27

### ELECTRICAL SPECIFICATIONS

SIZE CODE		SERIES CONNECTED			PARALLEL CONNECTED			
M27/356 Dash Number	Vanguard Part Number	Ind. mH (minimum)	D.C. Current Amps (maximum)	D.C. Res. Ohms ±25%	Ind. mH (minimum)	D.C. Current Amps (maximum)	D.C. Res. Ohms ±25%	
-01	1	41416	20	.06	54	5	.12	13.5
-02	2	42648	20	.10	29	5	.20	7.25
-03	3	42649	20	.14	20	5	.28	5.0
-04	4	42650	20	.22	12.4	5	.44	3.1
-05	5	42651	20	.29	10.2	5	.58	2.55
-06	1	42652	15	.07	40.5	3.75	.14	10.125
-07	2	42653	15	.12	22	3.75	.24	5.5
-08	3	42654	15	.16	15	3.75	.32	3.75
-09	4	42655	15	.25	9.3	3.75	.50	2.325
-10	5	42656	15	.33	7.7	3.75	.66	1.925
-11	1	42657	10	.08	27	2.5	.16	6.75
-12	2	42658	10	.14	14.6	2.5	.28	3.65
-13	3	42659	10	.20	10	2.5	.40	2.5
-14	4	42660	10	.31	6.2	2.5	.62	1.55
-15	5	42661	10	.40	5.1	2.5	.80	1.275
-16	1	42662	7.5	.10	20.3	1.88	.20	5.075
-17	2	42663	7.5	.17	11	1.88	.34	2.75
-18	3	42664	7.5	.24	7.5	1.88	.48	1.875
-19	4	42665	7.5	.38	4.7	1.88	.76	1.175
-20	5	42666	7.5	.49	3.8	1.88	.98	.95
-21	1	42667	5.0	.12	13.5	1.25	.24	3.375
-22	2	42668	5.0	.21	7.3	1.25	.42	1.825
-23	3	42669	5.0	.30	5	1.25	.60	1.25
-24	4	42670	5.0	.47	3.1	1.25	.94	.775
-25	5	42671	5.0	.6	2.6	1.25	1.2	.65
-26	1	42672	3	.16	8.1	.75	.32	2.025
-27	2	42673	3	.27	4.4	.75	.54	1.1
-28	3	42674	3	.38	3	.75	.76	.75
-29	4	42675	3	.6	1.9	.75	1.2	.475
-30	5	42676	3	.78	1.5	.75	1.56	.375
-31	1	42677	2	.19	5.4	.5	.38	1.35
-32	2	42678	2	.33	2.9	.5	.66	.725
-33	3	42679	2	.47	2	.5	.94	.5
-34	4	42680	2	.74	1.3	.5	1.48	.325
-35	5	42681	2	.95	1	.5	1.9	.25
-36	1	42682	1	.27	2.7	.25	.54	.675
-37	2	42683	1	.47	1.5	.25	.94	.375
-38	3	42684	1	.66	1	.25	1.32	.25
-39	4	42685	1	1	.62	.25	2	.155
-40	5	42686	1	1.3	.5	.25	2.6	.125
-41	1	42687	.750	.31	2	.1875	.62	.5
-42	2	42688	.750	.54	1	.1875	1.08	.25
-43	3	42689	.750	.76	.75	.1875	1.52	.1875
-44	4	42690	.750	1.2	.47	.1875	2.4	.1175
-45	5	42691	.750	1.6	.38	.1875	3.2	.095
-46	1	42692	.500	.38	1.3	.125	.76	.325
-47	2	42693	.500	.66	.66	.125	1.32	.165
-48	3	42694	.500	.93	.5	.125	1.86	.125
-49	4	42695	.500	1.47	.31	.125	2.94	.0775
-50	5	42696	.500	1.9	.25	.125	3.8	.0625
-51	1	42697	.250	.53	.66	.0625	1.06	.165
-52	2	42698	.250	.93	.33	.0625	1.86	.0825
-53	3	42699	.250	1.3	.25	.0625	2.6	.0625
-54	4	42700	.250	2.08	.16	.0625	4.16	.04
-55	5	42701	.250	2.7	.13	.0625	5.4	.0325
-56	1	42702	.100	.78	.30	.025	1.56	.075
-57	2	42703	.100	1.35	.17	.025	2.7	.043
-58	3	41885	.100	1.95	.11	.025	3.9	.028
-59	4	42705	.100	3.08	.07	.025	6.16	.018
-60	5	42706	.100	3.88	.06	.025	7.76	.015
-61	1	42707	.040	1.18	.14	.01	2.36	.035
-62	2	42708	.040	2.03	.07	.01	4.06	.018
-63	3	42709	.040	2.68	.06	.01	5.36	.015

### FEATURES

- Compact, encapsulated, P.C.B. mounting
- Tin-lead coated terminals for soldering.
- Approved for use by all departments and agencies of D.O.D.

### CHARACTERISTICS

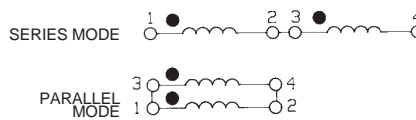
- -55 °C to +130 °C operating temperature.
- Temperature rise of less than 30 °C
- Minimum Inductance with rated DC thru inductor windings is greater than 80% of listed value..
- Dielectric strength is 200 VRMS.
- Magnetically shielded

### APPLICATIONS

- Filter inductors
- Ripple suppressors
- Common mode chokes
- Isolation transformers
- Step up transformers
- Step down transformers

THE TABLE LISTS A SIZE CODE FOR EACH PART. SEE NEXT PAGE FOR DIMENSIONS.

### TYPICAL USER CONNECTIONS



Inductance is measured at 0.1Vrms and 10kHz

## M27/356 SERIES

**VANGUARD ELECTRONICS**  
(714) 842-3330 WWW.VE1.COM

9707 REV 0901

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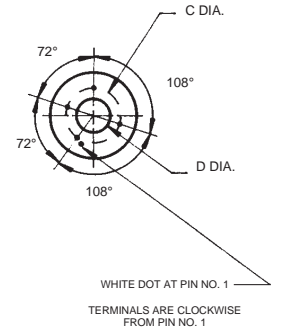
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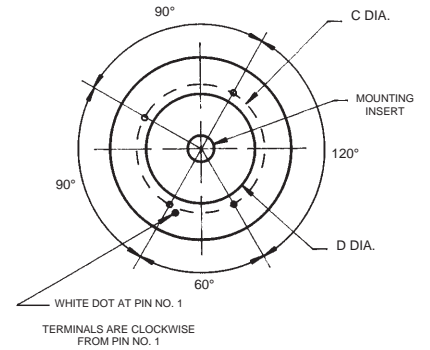
APPROXIMATE SIZE

	SIZE 1	SIZE 2	SIZE 3	SIZE 4	SIZE 5
<b>A</b>	0.280	0.340	0.415	0.500	0.635
<b>B</b>	0.410	0.500	0.630	0.800	0.950
<b>C</b>	0.260	0.350	0.440	0.560	0.670
<b>D</b>	0.160	0.250	0.340	0.460	0.570

### TERMINAL ARRANGEMENT "A"

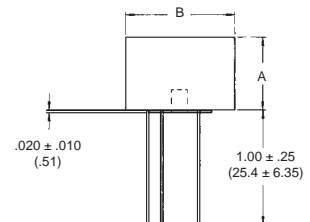


### TERMINAL ARRANGEMENT "B"



### MECHANICAL CONFIGURATION

SIZE CODE	DASH #	A MAX	B MAX DIA.	C ± .010	D ± .010	INSERT	TERMINAL ARRANG.	TERMINAL DIAMETER INCHES
<b>1</b>	01,06,11,16, 21,26,31,36, 41,46,51,56, 61	.280 (7.11)	.410 (10.41)	.260 (6.6)	.160 (4.06)	NA	A	.012
<b>2</b>	02,07,12,17, 22,27,32,37, 42,47,52,57, 62	.340 (8.63)	.500 (12.7)	.350 (8.89)	.250 (6.35)	NA	A	.012
<b>3</b>	03,08,13,18, 23,28,33,38, 43,48,53,58, 63	.415 (10.54)	.630 (16.0)	.440 (11.17)	.340 (8.64)	NA	A	.016
<b>4</b>	04,09,14,19, 24,29,34,39, 44,49,54,59	.500 (12.70)	.800 (20.32)	.560 (14.22)	.460 (11.68)	NA	B	.016
<b>5</b>	05,10,15,20, 25,30,35,40, 45,50,55,60	.635 (16.12)	.950 (24.13)	.670 (17.0)	.570 (14.48)	.138-32 UNC-2B .200 MIN DEEP	B	.020



## M27/356 SERIES