

QPL M27-356
PLUG-IN MINIATURIZED POWER INDUCTORS M27/356

REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings: See table I.

Design and construction:

Dimensions and configurations: See figure 1.

Case: Grade 5, encapsulated.

Terminals: Plug-in for PC board. The terminals shall be tin-lead plated phosphor bronze.

Size: Smallest possible size.

Weight: 1.25 ounces, maximum.

Altitude: 75,000 feet, maximum.

Operating temperature range: -55°C to +130°C.

Units manufactured to MIL-T-27/356 Grade 5, Class S (except size 0 which is class V).

Magnetic shield: All units are magnetically shielded.

Resistance to soldering heat: MIL-STD-202, method 210 test condition B. Depth of immersion shall be the entire mounting surface for 4 to 5 seconds.

Bond Strength: MIL-STD-883, method 2011, test condition F.

Force: 2 pounds.

Barometric pressure: MIL-STD-202, method 105, test condition C, (70,000 feet), test voltage 100 V rms.

Terminal strength: MIL-STD-202, method 211, test condition A, 2 pounds.

Dielectric withstanding voltage:

At sea level: 200 volts rms.

At reduced barometric pressure: 100 volts rms.

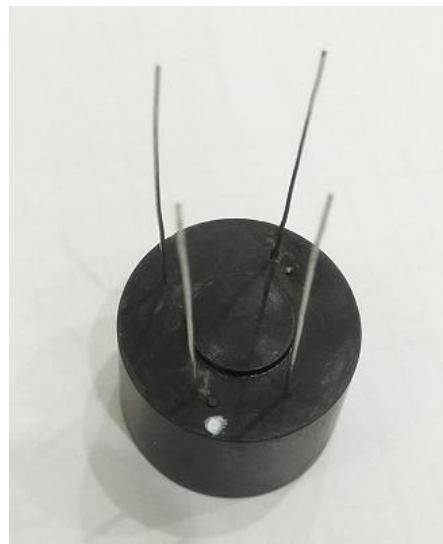
Vibration (high frequency): MIL-STD-202, method 204, test condition D.

Moisture resistance: MIL-STD-202, method 106, method of mounting shall be on a test substrate that provide test pieces on inch minimum separation.

Temperature rise: 30°C with 1 volt rms, rated dc current as specified in table I at an ambient temperature of 100°C, maximum.

Marking location: Marking shall be on top of the case.

Part or Identifying Number (PIN): M27/356-(dash number from table I), RAYCO (04620), 5T3871-(dash number from table I) and date code.



QPL M27-356
PLUG-IN MINIATURIZED POWER INDUCTORS M27/356

TABEL I. ELECTRICAL CHARACTERISTICS.

5T3871- XX	SERIES			PARALLEL			CONFIGUR- ATION
	INDUCTANCE	DC	DC	INDUCTANCE	DC	DC	
	1/ (mH)	CURRENT (MAX) (AMPS)	RESISTANCE (±25%) (OHMS)	1/ (mH)	CURRENT (MAX) (AMPS)	RESISTANCE (±25%) (OHMS)	
01	20.00	0.06	54.00	5.00	0.12	13.500	1
02	20.00	0.10	29.00	5.00	0.20	7.250	2
03	20.00	0.14	20.00	5.00	0.28	5.000	3
04	20.00	0.22	12.40	5.00	0.44	3.100	4
05	20.00	0.29	10.20	5.00	0.58	2.550	5
06	15.00	0.07	40.50	3.75	0.14	10.125	1
07	15.00	0.12	22.00	3.75	0.24	5.500	2
08	15.00	0.16	15.00	3.75	0.32	3.750	3
09	15.00	0.25	9.30	3.75	0.50	2.325	4
10	15.00	0.33	7.70	3.75	0.66	1.925	5
11	10.00	0.08	27.00	2.50	0.16	6.750	1
12	10.00	0.14	14.60	2.50	0.28	3.650	2
13	10.00	0.20	10.00	2.50	0.40	2.500	3
14	10.00	0.31	6.20	2.50	0.62	1.550	4
15	10.00	0.40	5.10	2.50	0.80	1.275	5
16	7.50	0.10	20.30	1.875	0.20	5.075	1
17	7.50	0.17	11.00	1.875	0.34	2.750	2
18	7.50	0.24	7.50	1.875	0.48	1.875	3
19	7.50	0.38	4.70	1.875	0.76	1.175	4
20	7.50	0.49	3.80	1.875	0.98	0.950	5
21	5.00	0.12	13.50	1.25	0.24	3.375	1
22	5.00	0.21	7.30	1.25	0.42	1.825	2
23	5.00	0.30	5.00	1.25	0.60	1.250	3
24	5.00	0.47	3.10	1.25	0.94	0.775	4
25	5.00	0.60	2.60	1.25	1.20	0.650	5
26	3.00	0.16	8.10	0.75	0.32	2.025	1
27	3.00	0.27	4.40	0.75	0.54	1.100	2
28	3.00	0.38	3.00	0.75	0.76	0.750	3
29	3.00	0.60	1.90	0.75	1.20	0.475	4
30	3.00	0.78	1.50	0.75	1.56	0.375	5
31	2.00	0.19	5.40	0.50	0.38	1.350	1
32	2.00	0.33	2.90	0.50	0.66	0.725	2
33	2.00	0.47	2.00	0.50	0.94	0.500	3
34	2.00	0.74	1.30	0.50	1.48	0.325	4
35	2.00	0.95	1.00	0.50	1.90	0.250	5
36	1.00	0.27	2.70	0.25	0.54	0.675	1
37	1.00	0.47	1.50	0.25	0.94	0.375	2
38	1.00	0.66	1.00	0.25	1.32	0.250	3
39	1.00	1.00	0.62	0.25	2.00	0.155	4
40	1.00	1.30	0.50	0.25	2.60	0.125	5

QPL M27-356

PLUG-IN MINIATURIZED POWER INDUCTORS M27/356

TABEL I. ELECTRICAL CHARACTERISTICS - CONTINUED.

5T3871-XX	SERIES			PARALLEL			CONFIGURATION
	INDUCTANCE 1/ (mH)	DC CURRENT (MAX) (AMPS)	DC RESISTANCE (±25%) (OHMS)	INDUCTANCE 1/ (mH)	DC CURRENT (MAX) (AMPS)	DC RESISTANCE (±25%) (OHMS)	
41	0.750	0.31	2.00	0.1875	0.62	0.5000	1
42	0.750	0.54	1.00	0.1875	1.08	0.2500	2
43	0.750	0.76	0.75	0.1875	1.52	0.1875	3
44	0.750	1.20	0.47	0.1875	2.40	0.1175	4
45	0.750	1.60	0.38	0.1875	3.20	0.0950	5
46	0.500	0.38	1.30	0.1250	0.76	0.3250	1
47	0.500	0.66	0.66	0.1250	1.32	0.1650	2
48	0.500	0.93	0.50	0.1250	1.86	0.1250	3
49	0.500	1.47	0.31	0.1250	2.94	0.0775	4
50	0.500	1.90	0.25	0.1250	3.80	0.0625	5
51	0.250	0.53	0.66	0.0625	1.06	0.1650	1
52	0.250	0.93	0.33	0.0625	1.86	0.0825	2
53	0.250	1.30	0.25	0.0625	2.60	0.0625	3
54	0.250	2.08	0.16	0.0625	4.16	0.0400	4
55	0.250	2.70	0.13	0.0625	5.40	0.0325	5
56	0.100	0.78	0.30	0.0250	1.56	0.0750	1
57	0.100	1.35	0.17	0.0250	2.70	0.0430	2
58	0.100	1.95	0.11	0.0250	3.90	0.0280	3
59	0.100	3.08	0.07	0.0250	6.16	0.0180	4
60	0.100	3.88	0.06	0.0250	7.76	0.0150	5
61	0.040	1.18	0.14	0.0100	2.36	0.0350	1
62	0.040	2.03	0.07	0.0100	4.06	0.0180	2
63	0.040	2.68	0.06	0.0100	5.36	0.0150	3
64	10.00	0.050	75.00	2.5000	0.100	18.750	0
65	7.50	0.058	56.00	1.8750	0.116	14.000	0
66	5.00	0.071	38.00	1.2500	0.142	9.500	0
67	3.00	0.091	22.00	0.7500	0.182	5.500	0
68	2.00	0.112	18.00	0.5000	0.224	4.500	0
69	0.75	0.182	6.00	0.1875	0.364	1.500	0
70	0.50	0.224	5.00	0.1250	0.448	1.250	0
71	0.25	0.316	1.90	0.0625	0.632	0.475	0
72	0.10	0.500	0.75	0.0250	1.000	0.1875	0
73	0.04	0.790	0.40	0.0100	1.580	0.100	0

1/ The inductance must be at least 80 percent of the listed value when measured with rated dc current at 0.1 V rms, 10 KHz.

QPL M27-356
PLUG-IN MINIATURIZED POWER INDUCTORS M27/356

FIGURE 1. DIMENSIONS AND CONFIGURATIONS

SIZE	Terminal Arrangement	A Max	B Max Dia	C ± 0.010	d ± 0.010	Terminal Dia ± 0.002	Mtg Insert
		Inches (Millimeters)	Inches (Millimeters)	Inches (Millimeters)	Inches (Millimeters)	Inches (Millimeters)	
0	A	0.250 (6.35)	0.320 (8.13)	0.210 (5.33)	0.130 (3.30)	0.012 (0.31)	
1	A	0.280 (7.11)	0.410 (10.41)	0.260 (6.60)	0.160 (4.06)	0.012 (0.31)	
2	A	0.340 (8.63)	0.500 (12.70)	0.350 (8.89)	0.250 (6.35)	0.012 (0.31)	
3	A	0.415 (10.54)	0.630 (16.00)	0.440 (11.17)	0.340 (8.64)	0.016 (0.41)	
4	B	0.500 (12.70)	0.800 (20.32)	0.560 (14.22)	0.460 (11.68)	0.016 (0.41)	
5	B	0.650 (16.51)	0.950 (24.13)	0.670 (17.00)	0.570 (14.48)	0.020 (0.51)	0.138-32 UNC-28 0.200 MIN DEEP

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side or on top.
4. For series connection join terminals 2 and 3, for parallel connection join terminals 1 and 3, 2 and 4.
5. Metric equivalents are in parentheses.

