31000 SERIES

QPL: M83446/9

VARIABLE INDUCTOR

AS9100 C CERTIFIED
ISO 9001 CERTIFIED
ITAR COMPLIANT

MIL-PRF-83446

Nominal Inductance Range (uH)	Typical Q	Current Rating (mA)
0.018 to 120	22 to 55	22 to 750

ELECTRICAL SPECIFICATIONS

- **Tunable inductance to meet specific requirements.**
- **Resistance to Solder Heat:** 260°C for 10 seconds
- **Operating Temperature:** -55°C to +125°C
- **Storage Temperature:** -60°C to +130°C
- **Temperature Rise:** 30°C Max at 90°C Ambient
- **Temperature Coefficient of Inductance**
  - P/N 31000 thru 31011: +125 PPM/oC Max.
  - P/N 31012 thru 31048: +80 PPM/oC Max.

FEATURES

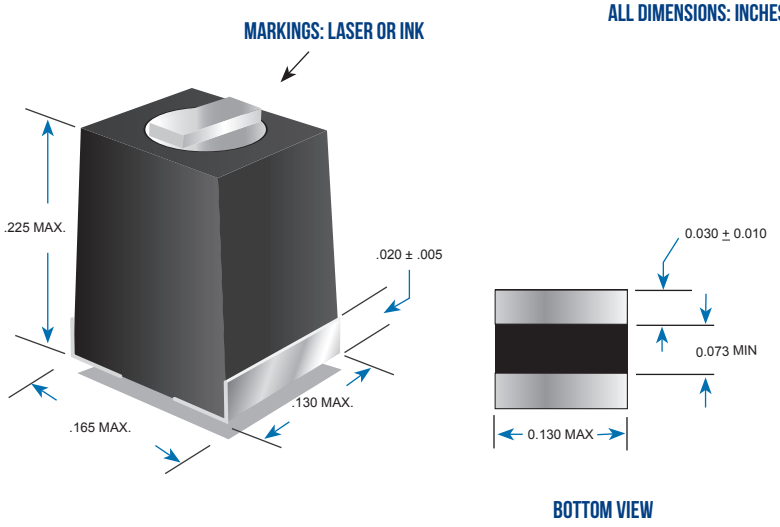
- **Transfer Molded Package**
- **Internal Welded Terminations**
- **Terminations:** Tin-lead over phosphor bronze
- **Optional Termination on Request:**
  Gold plated terminations (add suffix “G”)
- **Tape and Reel Packaging Available**
- **Recommended Mounting Technique**
  - Reflow or Vapor Phase Soldering
  - Conductive Epoxy
  - Wire bonding (gold lead only)

APPLICATIONS

- **Additional Application Grades Available:**
  - Space Grade (MIL-STD-981)
  - Commercial Grade or Equivalent

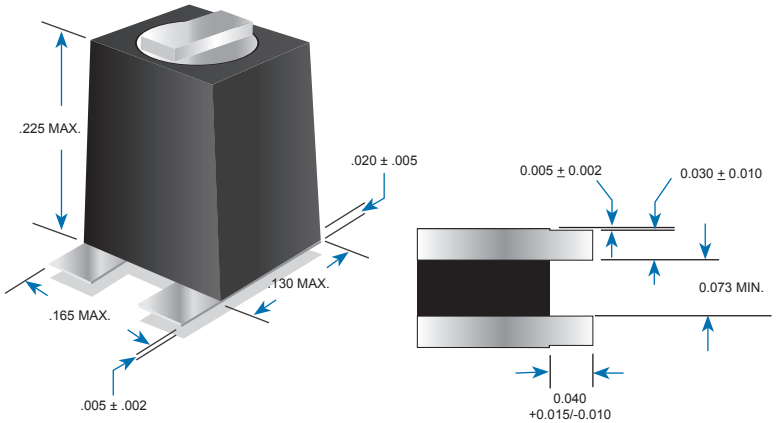
NO TABS

ALL DIMENSIONS: INCHES



BOTTOM VIEW

WITH TABS



BOTTOM VIEW

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DATA TABLE

WITH TAB TERMINATIONS		WITHOUT TAB TERMINATIONS								
M83446/9 Dash No.	VE P/N	M83446/9 Dash No.	VE P/N	Inductance Nom (uH)	Inductance Range Min (uH)	Test Freq (MHz)	Q Min	SRF Min (MHz)	DCR Max (Ohms)	Current Max (mA)
-01	31000	-48	31000 NT	0.018	0.015-0.021	150	50	1200	0.03	750
-02	31001	-49	31001 NT	0.022	0.018-0.026	150	55	1100	0.03	750
-03	31002	-50	31002 NT	0.027	0.022-0.032	150	55	1000	0.03	750
-04	31003	-51	31003 NT	0.033	0.027-0.039	150	55	900	0.04	750
-05	31004	-52	31004 NT	0.039	0.033-0.047	150	55	750	0.04	750
-06	31005	-53	31005 NT	0.047	0.039-0.056	100	55	660	0.04	750
-07	31006	-54	31006 NT	0.056	0.047-0.068	100	55	610	0.05	700
-08	31007	-55	31007 NT	0.068	0.055-0.083	100	55	550	0.05	700
-09	31008	-56	31008 NT	0.082	0.067-0.099	100	55	520	0.06	645
-10	31009	-57	31009 NT	0.10	0.080-0.120	100	55	490	0.06	645
-11	31010	-58	31010 NT	0.12	0.096-0.144	50	50	460	0.07	600
-12	31011	-59	31011 NT	0.15	0.12-0.18	50	50	430	0.08	560
-13	31012	-60	31012 NT	0.18	0.14-0.22	50	50	385	0.09	525
-14	31013	-61	31013 NT	0.22	0.17-0.27	50	45	330	0.10	500
-15	31014	-62	31014 NT	0.27	0.21-0.33	50	45	300	0.15	400
-16	31015	-63	31015 NT	0.33	0.26-0.40	50	45	275	0.19	360
-17	31016	-64	31016 NT	0.39	0.32-0.47	50	40	240	0.25	300
-18	31017	-65	31017 NT	0.47	0.37-0.57	25	40	210	0.30	280
-19	31018	-66	31018 NT	0.56	0.46-0.68	25	40	190	0.40	250
-20	31019	-67	31019 NT	0.68	0.54-0.82	25	40	165	0.60	200
-21	31020	-68	31020 NT	0.82	0.68-1.00	25	40	155	0.70	180
-22	31021	-69	31021 NT	1.0	0.75-1.25	25	40	140	0.90	160
-23	31022	-70	31022 NT	1.2	0.90-1.50	25	35	125	1.10	150
-24	31023	-71	31023 NT	1.5	1.13-1.87	7.9	30	115	1.30	135
-25	31024	-72	31024 NT	1.8	1.35-2.25	7.9	30	105	1.70	120
-26	31025	-73	31025 NT	2.2	1.65-2.75	7.9	30	100	2.3	100
-27	31026	-74	31026 NT	2.7	2.02-3.37	7.9	25	85	3.0	90
-28	31027	-75	31027 NT	3.3	2.48-4.12	7.9	25	75	3.9	80
-29	31028	-76	31028 NT	3.9	2.92-4.87	7.9	25	47	3.9	80
-30	31029	-77	31029 NT	4.7	3.52-5.88	7.9	25	30	3.9	80
-31	31030	-78	31030 NT	5.6	4.2-7.0	7.9	22	24	4.0	75
-32	31031	-79	31031 NT	6.8	5.1-8.5	7.9	22	23	4.0	75
-33	31032	-80	31032 NT	8.2	6.1-10.2	7.9	22	22	4.5	72
-34	31033	-81	31033 NT	10	7.5-12.5	7.9	22	21	4.5	72

CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types

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-35	31034	-82	31034 NT	12	9.0-15.0	7.9	22	17	5.0	70
-36	31035	-83	31035 NT	15	11.2-18.7	2.5	22	15	6.0	65
-37	31036	-84	31036 NT	18	13.5-22.5	2.5	22	14	8.0	55
-38	31037	-85	31037 NT	22	16.5-27.5	2.5	22	13	10.0	50
-39	31038	-86	31038 NT	27	20.2-31.3	2.5	22	11	11.0	45
-40	31039	-87	31039 NT	33	24.7-41.2	2.5	22	10	13.0	43
-41	31040	-88	31040 NT	39	29.2-48.8	2.5	22	9	14.0	42
-42	31041	-89	31041 NT	47	35.2-58.8	2.5	22	8	15.0	40
-43	31042	-90	31042 NT	56	42.0-70.0	2.5	22	7	19.0	36
-44	31043	-91	31043 NT	68	51.0-85.0	2.5	22	6	24.0	32
-45	31044	-92	31044 NT	82	62.0-102.0	2.5	25	5	31.0	28
-46	31045	-93	31045 NT	100	75.0-125.0	2.5	25	4	40.0	25
-47	31046	-94	31046 NT	120	90.0-150.0	2.5	25	3	50.0	22

Test Fixtures and Equipment:
To assure accurate measurement of Inductance and Q, use test fixtures and equipment specficed in Technical Information on VE1.com

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