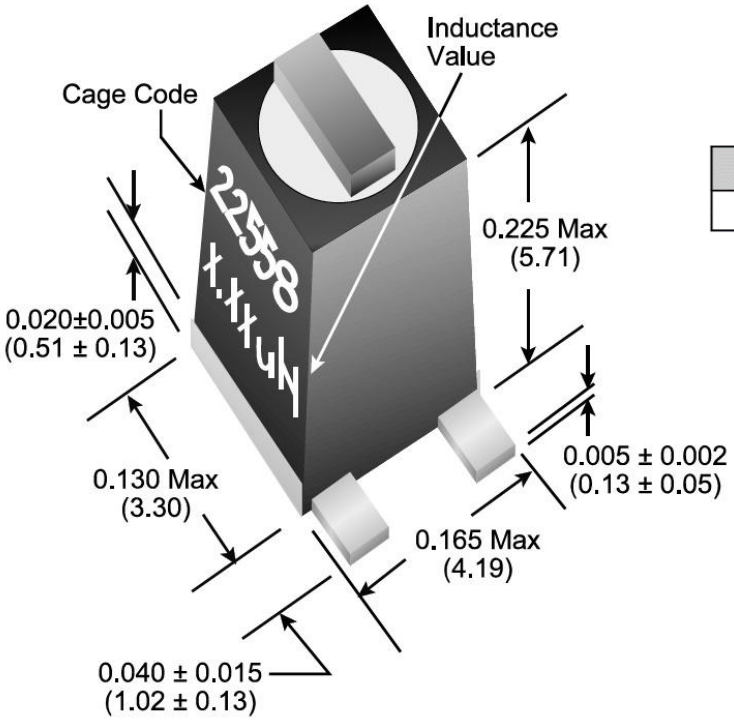
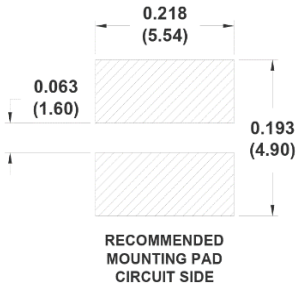
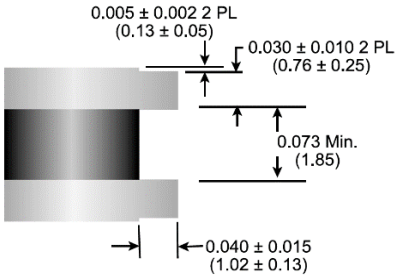
Variable Chip Inductors – S9000 Series



Inches
(Millimeters)

MIL-STD-981
MIL-PRF-83446
Qualified Products List (QPL)
QPL: M83446/09





Bottom view

SPECIFICATIONS

- **Inductance:** 0.015 µH to 150 µH
- **Standard Tolerance:** ±10%
- **Operating Temperature:** -55°C to +125°C
- **Storage Temperature:** -60°C to +130°C
- **Temperature rise (at 90°C):** 35°C
- **Standard Termination Finish:** Tin-lead
- **Weight:** 0.5 gram, maximum
- **Dielectric Withstanding Voltage:** Method 301 of MIL-STD-202, test voltage 700 Vrms
- **Barometric Pressure:** Method 105, test condition C, MIL-STD-202 (70,000 feet), test voltage 200 Vrms
- **Glass Transition Temperature (T_g):** 165°C
- **Coefficient of Thermal Expansion (CTE):**
  Before T_g 18 ppm/°C
  After T_g 54 ppm/°C

FEATURES

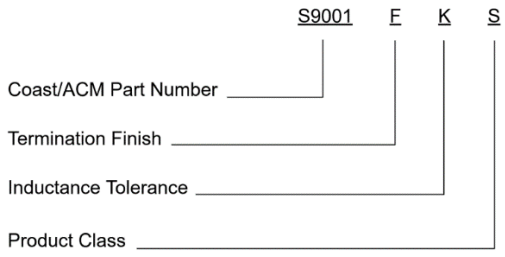
- Transfer Molded Package
- Laser Marking
- Leadless device for minimum footprint
- Internal Welded Terminations
- Low EMI Radiation
- Low Thermal Expansion permits mounting on most substrate materials
- Outgassing meets NASA spec SP-R-0022A: TML < 1%
- Termination Finish Optionsavailable (additional charge)
- Tighter Tolerances available (additional charge)
- Tape and Reel Packaging Available (additional charge)
  Full Reel Quantity (No Tabs): 2000 pieces
- Custom Designs: Other electrical configurations and performance characteristics are available in various sizes and package type

APPLICATIONS

These components meet the requirements of MIL-PRF-83446 and MIL-STD-981, Class S or Class B classifications:

- **Class S:** Specifically engineered for critical flight operations and essential ground support missions, as well as any application where safety is critical. These components undergo a stringent quality validation process, which includes both Group A and Group B screening as per the requirements of MIL-STD-981.
- **Class B:** Suited for non-critical flight operations and non-essential ground support missions. The quality assurance process for these components encompasses Group A screening as per the requirementsof MIL-STD-981.

PART IDENTIFYING NUMBER



F: Termination Finish
A: Gold *F: Tin-lead*

K: Inductance Tolerance
M: ±20% *K: ±10%* *J: ±5%* *H: ±3%* *G: ±2%* *F: ±1%*

S: Product Class
S: Class S *B: Class B*

Variable Chip Inductors – S9000 Series

With Tabs		Without Tabs		Inductance (µH)			Test Frequency (MHz)	Q (min)	Q Typ	SRF (min) MHz	DCR (max) ohms	Current (max) mA
Dash Number	C/ACM P/N	Dash Number	C/ACM P/N	Min	Nom	Max						
M83446/09-01	9001	M83446/09-48	9048	0.015	0.018	0.021	150	50	60	1200	.03	750
M83446/09-02	9002	M83446/09-49	9049	0.018	0.022	0.026	150	55	65	1100	.03	750
M83446/09-03	9003	M83446/09-50	9050	0.022	0.027	0.032	150	55	65	1000	.03	750
M83446/09-04	9004	M83446/09-51	9051	0.027	0.033	0.039	150	55	65	900	.04	750
M83446/09-05	9005	M83446/09-52	9052	0.033	0.039	0.047	150	55	65	750	.04	750
M83446/09-06	9006	M83446/09-53	9053	0.039	0.047	0.056	100	55	65	660	.04	750
M83446/09-07	9007	M83446/09-54	9054	0.047	0.056	0.068	100	55	65	610	.05	700
M83446/09-08	9008	M83446/09-55	9055	0.055	0.068	0.083	100	55	65	550	.05	700
M83446/09-09	9009	M83446/09-56	9056	0.067	0.082	0.099	100	55	65	520	.06	645
M83446/09-10	9010	M83446/09-57	9057	0.080	0.100	0.120	100	55	65	490	.06	645
M83446/09-11	9011	M83446/09-58	9058	0.096	0.120	0.144	50	50	60	460	.07	600
M83446/09-12	9012	M83446/09-59	9059	0.12	0.15	0.18	50	50	60	430	.08	560
M83446/09-13	9013	M83446/09-60	9060	0.14	0.18	0.22	50	50	60	385	.09	525
M83446/09-14	9014	M83446/09-61	9061	0.17	0.22	0.27	50	45	51	330	.10	500
M83446/09-15	9015	M83446/09-62	9062	0.21	0.27	0.33	50	45	51	300	.15	400
M83446/09-16	9016	M83446/09-63	9063	0.26	0.33	0.40	50	45	51	275	.19	360
M83446/09-17	9017	M83446/09-64	9064	0.32	0.39	0.47	50	40	50	240	.25	300
M83446/09-18	9018	M83446/09-65	9065	0.37	0.47	0.57	25	40	50	210	.30	280
M83446/09-19	9019	M83446/09-66	9066	0.46	0.56	0.68	25	40	50	190	.40	250
M83446/09-20	9020	M83446/09-67	9067	0.54	0.68	0.82	25	40	50	165	.60	200
M83446/09-21	9021	M83446/09-68	9068	0.68	0.82	1.00	25	40	50	155	.70	180
M83446/09-22	9022	M83446/09-69	9069	0.75	1.00	1.25	25	40	50	140	.90	160
M83446/09-23	9023	M83446/09-70	9070	0.90	1.20	1.50	25	35	44	125	1.1	150
M83446/09-24	9024	M83446/09-71	9071	1.13	1.50	1.87	7.9	30	38	115	1.3	135
M83446/09-25	9025	M83446/09-72	9072	1.35	1.80	2.25	7.9	30	38	105	1.7	120
M83446/09-26	9026	M83446/09-73	9073	1.65	2.20	2.75	7.9	30	38	100	2.3	100
M83446/09-27	9027	M83446/09-74	9074	2.02	2.70	3.37	7.9	25	35	85	3.0	90
M83446/09-28	9028	M83446/09-75	9075	2.48	3.30	4.12	7.9	25	35	75	3.9	80
M83446/09-29	9029	M83446/09-76	9076	2.92	3.9	4.87	7.9	25	33	47	3.9	80
M83446/09-30	9030	M83446/09-77	9077	3.52	4.7	5.88	7.9	25	33	30	3.9	80
M83446/09-31	9031	M83446/09-78	9078	4.2	5.6	7.0	7.9	22	30	24	4.0	75
M83446/09-32	9032	M83446/09-79	9079	5.1	6.8	8.5	7.9	22	30	23	4.0	75
M83446/09-33	9033	M83446/09-80	9080	6.1	8.2	10.2	7.9	22	30	22	4.5	72
M83446/09-34	9034	M83446/09-81	9081	7.5	10.0	12.5	7.9	22	30	21	4.5	72
M83446/09-35	9035	M83446/09-82	9082	9.0	12.0	15.0	7.9	22	30	17	5.0	70
M83446/09-36	9036	M83446/09-83	9083	11.2	15.0	18.7	2.5	22	30	15	6.0	65
M83446/09-37	9037	M83446/09-84	9084	13.5	18.0	22.5	2.5	22	30	14	8.0	55
M83446/09-38	9038	M83446/09-85	9085	16.5	22.0	27.5	2.5	22	30	13	10.0	50
M83446/09-39	9039	M83446/09-86	9086	20.2	27.0	31.3	2.5	22	30	11	11.0	45
M83446/09-40	9040	M83446/09-87	9087	24.7	33.0	41.2	2.5	22	30	10	13.0	43
M83446/09-41	9041	M83446/09-88	9088	29.2	39.0	48.8	2.5	22	30	9	14.0	42
M83446/09-42	9042	M83446/09-89	9089	35.2	47.0	58.8	2.5	22	30	8	15.0	40
M83446/09-43	9043	M83446/09-90	9090	42.0	56.0	70.0	2.5	22	30	7	19.0	36
M83446/09-44	9044	M83446/09-91	9091	51.0	68.0	85.0	2.5	22	30	6	24.0	32
M83446/09-45	9045	M83446/09-92	9092	62.0	82.0	102.0	2.5	25	33	5	31.0	28
M83446/09-46	9046	M83446/09-93	9093	75.0	100.0	125.0	2.5	25	33	4	40.0	25
M83446/09-47	9047	M83446/09-94	9094	90.0	120.0	150.0	2.5	25	33	3	50.0	22