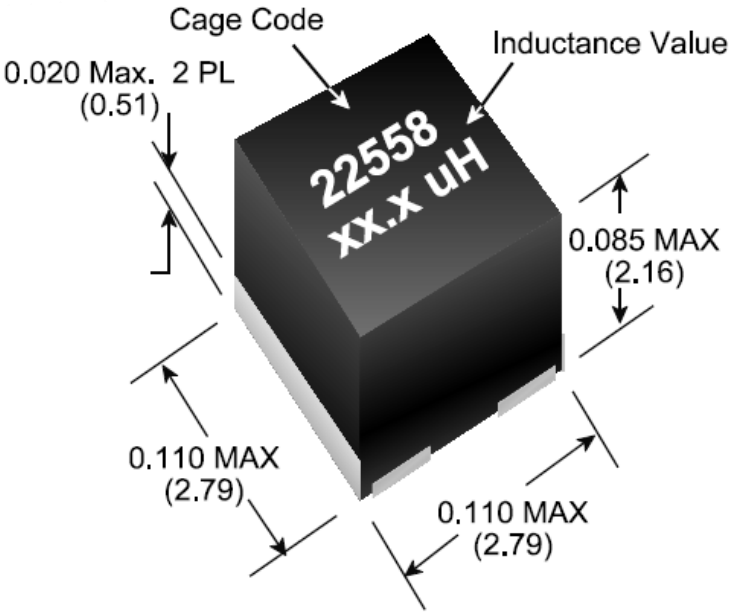
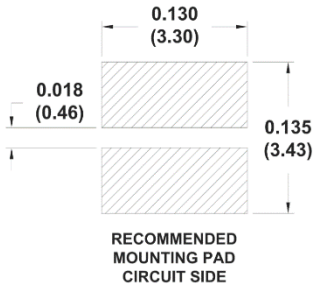
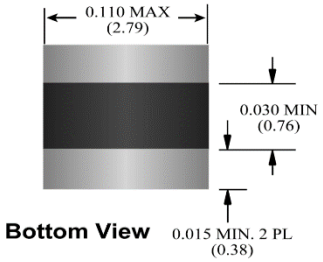
Fixed Chip Inductors – S4000 Series



Inches
(Millimeters)

MIL-STD-981
MIL-PRF-83446
Qualified Products List (QPL)
QPL: M83446/04





SPECIFICATIONS

- **Inductance:** 0.010 µH to 27 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 200 Vrms
- **Barometric Pressure:** Method 105, test condition C, MIL-STD-202 (70,000 feet), test voltage 80 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

APPLICATIONS

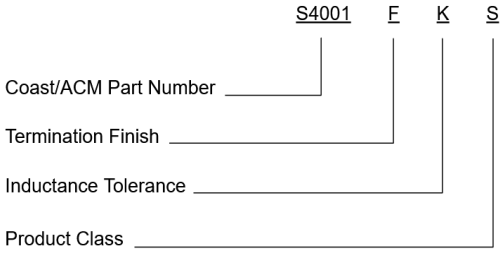
These components meet the requirements of MIL-PRF-83446 and MIL-STD-981, Class S or Class B classifications:

- **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 requirements of MIL-STD-981.

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 Options available upon request (additional charge)
- Additional Tolerances available upon request (additional charge)
- Tape and Reel Packaging Available (additional charge)
  Full Reel Quantity: 2000 pieces
- Custom Designs: Other electrical configurations and performance characteristics are available in various sizes and package type

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*

Fixed Chip Inductors – S4000 Series

DashNumber	C/ACM P/N	Inductance (µH)	Test Frequency (MHz)	Q (min)	SRF (min) MHz	DCR (max) ohms	Current (max) mA
M83446/04-01	S4001	0.12 ±10%	25	30	750	.125	880
M83446/04-02	S4002	0.15 ±10%	25	25	650	.175	745
M83446/04-03	S4003	0.18 ±10%	25	25	550	.200	695
M83446/04-04	S4004	0.22 ±10%	25	25	450	.220	665
M83446/04-05	S4005	0.27 ±10%	25	25	375	.230	650
M83446/04-06	S4006	0.33 ±10%	25	25	300	.235	645
M83446/04-07	S4007	0.39 ±10%	25	22	235	.240	635
M83446/04-08	S4008	0.47 ±10%	25	22	215	.260	610
M83446/04-09	S4009	0.56 ±10%	25	22	195	.278	590
M83446/04-10	S4010	0.68 ±10%	25	22	175	.520	435
M83446/04-11	S4011	0.82 ±10%	25	22	160	.530	430
M83446/04-12	S4012	1.0 ±10%	25	22	145	.540	425
M83446/04-13	S4013	1.2 ±10%	7.9	22	130	.740	360
M83446/04-14	S4014	1.5 ±10%	7.9	22	115	.840	340
M83446/04-15	S4015	1.8 ±10%	7.9	22	105	.920	325
M83446/04-16	S4016	2.2 ±10%	7.9	22	85	1.00	310
M83446/04-17	S4017	2.7 ±10%	7.9	24	77	1.15	290
M83446/04-18	S4018	3.3 ±10%	7.9	24	70	1.40	260
M83446/04-19	S4019	3.9 ±10%	7.9	24	68	1.55	250
M83446/04-20	S4020	4.7 ±10%	7.9	24	60	1.80	230
M83446/04-21	S4021	5.6 ±10%	7.9	22	55	2.00	220
M83446/04-22	S4022	6.8 ±10%	7.9	22	50	2.20	210
M83446/04-23	S4023	8.2 ±10%	7.9	22	48	2.50	195
M83446/04-24	S4024	10.0 ±10%	7.9	24	40	3.45	165
M83446/04-25	S4025	12.0 ±10%	2.5	25	35	3.80	160
M83446/04-26	S4026	15.0 ±10%	2.5	25	30	5.60	135
M83446/04-27	S4027	18.0 ±10%	2.5	25	28	5.80	130
M83446/04-28	S4028	22.0 ±10%	2.5	25	25	6.40	125
M83446/04-29	S4029	27.0 ±10%	2.5	25	22	6.90	120
M83446/04-30	S4030	0.010 ±20%	50	60	2700	.060	1270
M83446/04-31	S4031	0.015 ±20%	50	55	2200	.078	1110
M83446/04-32	S4032	0.022 ±20%	50	50	1800	.108	950
M83446/04-33	S4033	0.033 ±20%	50	48	1450	.120	900
M83446/04-34	S4034	0.047 ±20%	50	42	1220	.145	820
M83446/04-35	S4035	0.068 ±20%	50	36	1000	.195	705
M83446/04-36	S4036	0.100 ±20%	50	32	830	.230	650
M83446/04-37	S4037	0.010 ±10%	50	60	2700	.060	1270
M83446/04-38	S4038	0.012 ±10%	50	57	2450	.069	1190
M83446/04-39	S4039	0.015 ±10%	50	55	2200	.078	1110
M83446/04-40	S4040	0.018 ±10%	50	52	2000	.093	1030
M83446/04-41	S4041	0.022 ±10%	50	50	1800	.108	950
M83446/04-42	S4042	0.027 ±10%	50	49	1625	.114	925
M83446/04-43	S4043	0.033 ±10%	50	48	1450	.120	900
M83446/04-44	S4044	0.039 ±10%	50	45	1335	.133	860
M83446/04-45	S4045	0.047 ±10%	50	42	1220	.145	820
M83446/04-46	S4046	0.056 ±10%	50	39	1110	.170	760
M83446/04-47	S4047	0.068 ±10%	50	36	1000	.195	705
M83446/04-48	S4048	0.082 ±10%	50	34	915	.212	675
M83446/04-49	S4049	0.100 ±10%	50	32	830	.230	650