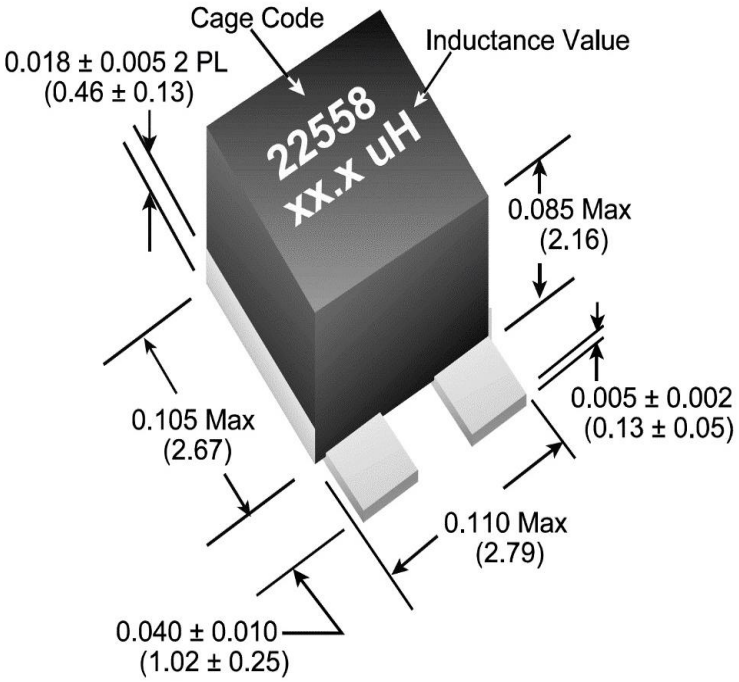
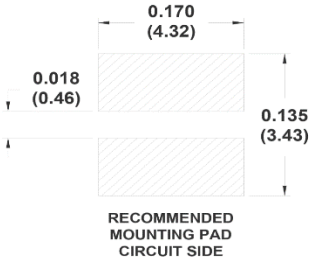
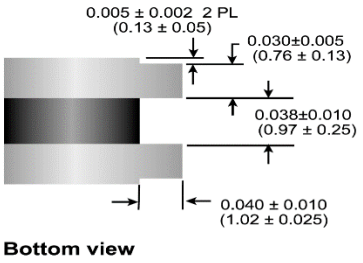
Fixed Chip Inductors – S5000 Series



Inches
(Millimeters)

MIL-STD-981
MIL-PRF-83446
Qualified Products List (QPL)
QPL: M83446/05





SPECIFICATIONS

- **Inductance:** 0.010 µH to 10 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 300 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 Options available (additional charge)
- Tighter Tolerances available (additional charge)
- Tape and Reel Packaging Available (additional charge)
  Full Reel Quantity (Tabs): 1800 pieces
  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 requirementsof 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.

PART IDENTIFYING NUMBER

S5001 F K S

Coast/ACM Part Number
Termination Finish
Inductance Tolerance
Product Class

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 – S5000 Series

With Tabs		Without Tabs		Inductance (µH)	Test Frequency (MHz)	Q (min)	Q Typ	SRF (min) MHz	DCR (max) ohms	Current (max) mA
DashNumber	C/ACM P/N	DashNumber	C/ACM P/N							
M83446/05-01	S5001	M83446/05-38	S5038	0.010 ±10%	150	50	55	2000	.025	750
M83446/05-02	S5002	M83446/05-39	S5039	0.012 ±10%	150	50	55	2000	.025	750
M83446/05-03	S5003	M83446/05-40	S5040	0.015 ±10%	150	50	55	1800	.040	750
M83446/05-04	S5004	M83446/05-41	S5041	0.018 ±10%	150	50	55	1500	.040	750
M83446/05-05	S5005	M83446/05-42	S5042	0.022 ±10%	100	45	50	1400	.040	750
M83446/05-06	S5006	M83446/05-43	S5043	0.027 ±10%	100	45	50	1200	.040	750
M83446/05-07	S5007	M83446/05-44	S5044	0.033 ±10%	100	47	55	1200	.050	640
M83446/05-08	S5008	M83446/05-45	S5045	0.039 ±10%	100	47	55	1200	.070	600
M83446/05-09	S5009	M83446/05-46	S5046	0.047 ±10%	100	47	55	1000	.080	550
M83446/05-10	S5010	M83446/05-47	S5047	0.056 ±10%	100	47	55	900	.090	520
M83446/05-11	S5011	M83446/05-48	S5048	0.068 ±10%	100	47	55	900	.10	480
M83446/05-12	S5012	M83446/05-49	S5049	0.082 ±10%	100	47	55	750	.11	470
M83446/05-13	S5013	M83446/05-50	S5050	0.100 ±10%	50	47	55	700	.11	470
M83446/05-14	S5014	M83446/05-51	S5051	0.120 ±10%	50	47	55	600	.11	470
M83446/05-15	S5015	M83446/05-52	S5052	0.150 ±10%	50	47	55	500	.12	450
M83446/05-16	S5016	M83446/05-53	S5053	0.180 ±10%	50	51	60	450	.14	430
M83446/05-17	S5017	M83446/05-54	S5054	0.220 ±10%	50	51	60	420	.20	350
M83446/05-18	S5018	M83446/05-55	S5055	0.270 ±10%	50	51	60	400	.25	310
M83446/05-19	S5019	M83446/05-56	S5056	0.330 ±10%	50	51	60	320	.30	280
M83446/05-20	S5020	M83446/05-57	S5057	0.390 ±10%	50	47	55	270	.45	240
M83446/05-21	S5021	M83446/05-58	S5058	0.470 ±10%	25	47	55	250	.50	230
M83446/05-22	S5022	M83446/05-59	S5059	0.560 ±10%	25	52	60	200	.55	220
M83446/05-23	S5023	M83446/05-60	S5060	0.680 ±10%	25	52	60	180	.58	210
M83446/05-24	S5024	M83446/05-61	S5061	0.820 ±10%	25	52	60	150	.60	200
M83446/05-25	S5025	M83446/05-62	S5062	1.00 ±10%	25	52	60	120	.65	190
M83446/05-26	S5026	M83446/05-63	S5063	1.20 ±10%	7.9	42	50	110	.75	180
M83446/05-27	S5027	M83446/05-64	S5064	1.50 ±10%	7.9	42	50	100	1.1	160
M83446/05-28	S5028	M83446/05-65	S5065	1.80 ±10%	7.9	48	55	95	1.2	150
M83446/05-29	S5029	M83446/05-66	S5066	2.20 ±10%	7.9	48	55	90	1.3	140
M83446/05-30	S5030	M83446/05-67	S5067	2.70 ±10%	7.9	48	55	65	1.5	130
M83446/05-31	S5031	M83446/05-68	S5068	3.30 ±10%	7.9	48	55	55	1.8	120
M83446/05-32	S5032	M83446/05-69	S5069	3.90 ±10%	7.9	48	55	45	2.0	110
M83446/05-33	S5033	M83446/05-70	S5070	4.70 ±10%	7.9	48	55	43	2.3	100
M83446/05-34	S5034	M83446/05-71	S5071	5.60 ±10%	7.9	48	55	40	2.5	100
M83446/05-35	S5035	M83446/05-72	S5072	6.80 ±10%	7.9	46	53	38	2.6	98
M83446/05-36	S5036	M83446/05-73	S5073	8.20 ±10%	7.9	46	53	35	2.8	95
M83446/05-37	S5037	M83446/05-74	S5074	10.0 ±10%	7.9	46	53	33	3.3	87