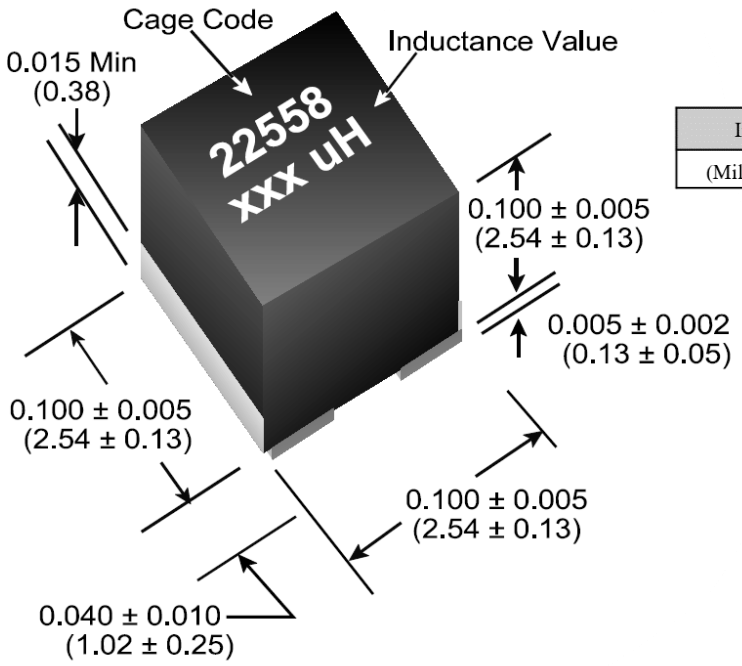
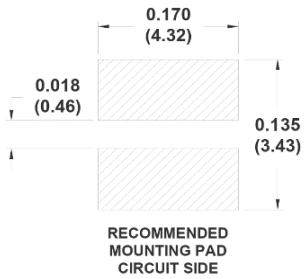
Fixed Chip Inductors – S13000 Series

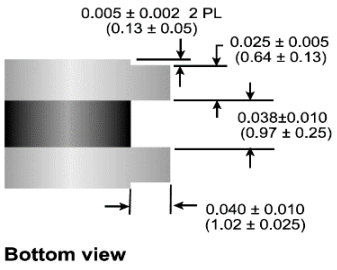


Inches
(Millimeters)

ISO 9001:2015 CERTIFIED · AS9100D CERTIFIED · ITAR REGISTERED

MIL-STD-981
MIL-PRF-83446
Qualified Products List (QPL)
QPL: M83446/13





SPECIFICATIONS

- **Inductance:** 0.010 µH to 1000 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:** 0.02 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

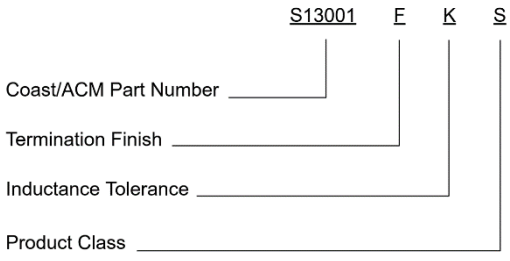
- Transfer Molded Package
- Laser Marking
- Leadless device for minimum footprint
- Internal Welded Terminations
- Low EMI Radiation
- Low Thermal Expansion permits mounting on most substrate materials
- Outgassing meets NASA spec SP-R-0022A: TML < 1%
- Termination Finish Options available (additional 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 requirements of 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*

COAST ACM

Fixed Chip Inductors – S13000 Series

DashNumber	C/ACM P/N	Inductance (µH)	Test Frequency (MHz)	Q (min)	Q Typ	SRF (min) MHz	DCR (max) ohms	Rated Current Max (mA)	Incremental Current (mA)
M83446/13-01	S13001	0.010 ±10%	200	45	60	1200	.020	750	----
M83446/13-02	S13002	0.012 ±10%	200	45	60	1200	.025	750	----
M83446/13-03	S13003	0.015 ±10%	200	45	60	1200	.035	750	----
M83446/13-04	S13004	0.018 ±10%	200	45	60	1200	.040	750	----
M83446/13-05	S13005	0.022 ±10%	200	45	60	1000	.045	750	----
M83446/13-06	S13006	0.027 ±10%	200	45	55	1000	.050	750	----
M83446/13-07	S13007	0.033 ±10%	200	45	55	1000	.055	640	----
M83446/13-08	S13008	0.039 ±10%	200	45	55	1000	.060	600	----
M83446/13-09	S13009	0.047 ±10%	100	45	50	1000	.065	550	----
M83446/13-10	S13010	0.056 ±10%	100	45	50	1000	.060	520	----
M83446/13-11	S13011	0.068 ±10%	100	40	45	800	.060	480	----
M83446/13-12	S13012	0.082 ±10%	100	35	40	800	.080	470	----
M83446/13-13	S13013	0.100 ±10%	25.0	35	40	750	.160	460	----
M83446/13-14	S13014	0.120 ±10%	25.0	35	40	700	.170	455	----
M83446/13-15	S13015	0.150 ±10%	25.0	35	40	650	.190	450	----
M83446/13-16	S13016	0.180 ±10%	25.0	35	40	600	.200	430	----
M83446/13-17	S13017	0.220 ±10%	25.0	35	40	550	.300	350	----
M83446/13-18	S13018	0.270 ±10%	25.0	35	40	480	.350	310	----
M83446/13-19	S13019	0.330 ±10%	25.0	35	40	400	.720	280	----
M83446/13-20	S13020	0.390 ±10%	25.0	35	40	380	.80	250	----
M83446/13-21	S13021	0.470 ±10%	25.0	35	40	350	1.26	230	----
M83446/13-22	S13022	0.560 ±10%	25.0	35	40	330	1.30	220	----
M83446/13-23	S13023	0.680 ±10%	25.0	35	40	300	1.40	210	----
M83446/13-24	S13024	0.820 ±10%	25.0	35	40	250	1.50	200	----
M83446/13-25	S13025	1.0 ±10%	25.0	35	40	220	1.60	200	----
M83446/13-26	S13026	1.2 ±10%	7.90	32	40	200	1.70	200	----
M83446/13-27	S13027	1.5 ±10%	7.90	32	40	175	2.00	190	----
M83446/13-28	S13028	1.8 ±10%	7.90	32	40	150	2.00	185	----
M83446/13-29	S13029	2.2 ±10%	7.90	32	40	95	2.00	180	----
M83446/13-30	S13030	2.7 ±10%	7.90	30	35	85	2.00	175	----
M83446/13-31	S13031	3.3 ±10%	7.90	30	35	70	2.00	170	----
M83446/13-32	S13032	3.9 ±10%	7.90	30	35	60	2.10	165	----
M83446/13-33	S13033	4.7 ±10%	7.90	30	35	50	2.30	165	----
M83446/13-34	S13034	5.6 ±10%	7.90	30	35	40	2.50	165	----
M83446/13-35	S13035	6.8 ±10%	7.90	30	35	30	2.50	165	----
M83446/13-36	S13036	8.2 ±10%	7.90	27	32	22	2.50	120	----
M83446/13-37	S13037	10 ±10%	7.90	35	40	20	2.90	105	58
M83446/13-38	S13038	12 ±10%	2.50	35	40	15	3.00	91	53
M83446/13-39	S13039	15 ±10%	2.50	35	40	13	3.00	87	50
M83446/13-40	S13040	18 ±10%	2.50	35	40	12	3.20	81	46
M83446/13-41	S13041	22 ±10%	2.50	35	40	10	4.00	77	37
M83446/13-42	S13042	27 ±10%	2.50	35	40	9.0	4.00	73	34
M83446/13-43	S13043	33 ±10%	2.50	35	40	9.0	4.50	69	32
M83446/13-44	S13044	39 ±10%	2.50	35	40	6.5	5.00	65	29
M83446/13-45	S13045	47 ±10%	2.50	35	40	6.2	5.70	63	29
M83446/13-46	S13046	56 ±10%	2.50	35	40	6.0	6.00	60	28
M83446/13-47	S13047	68 ±10%	2.50	35	40	5.8	6.70	57	26
M83446/13-48	S13048	82 ±10%	2.50	30	40	5.2	7.50	55	23
M83446/13-49	S13049	100 ±10%	2.50	30	35	4.0	13.0	50	20
M83446/13-50	S13050	120 ±10%	0.790	28	30	4.0	14.0	40	20
M83446/13-51	S13051	150 ±10%	0.790	28	30	3.9	18.0	36	20
M83446/13-52	S13052	180 ±10%	0.790	28	30	3.5	20.0	33	19
M83446/13-53	S13053	220 ±10%	0.790	28	30	3.2	21.0	28	18
M83446/13-54	S13054	270 ±10%	0.790	20	25	3.1	25.0	25	17
M83446/13-55	S13055	330 ±10%	0.790	20	25	2.8	37.0	20	16
M83446/13-56	S13056	390 ±10%	0.790	20	25	2.5	39.0	17	16
M83446/13-57	S13057	470 ±10%	0.790	20	25	2.3	45.0	15	15
M83446/13-58	S13058	560 ±10%	0.790	20	25	2.2	57.0	13	14
M83446/13-59	S13059	680 ±10%	0.790	20	25	2.1	62.0	12	13
M83446/13-60	S13060	820 ±10%	0.790	18	20	2.1	78.0	11	11
M83446/13-61	S13061	1000 ±10%	0.790	10	15	1.1	96.0	10	10