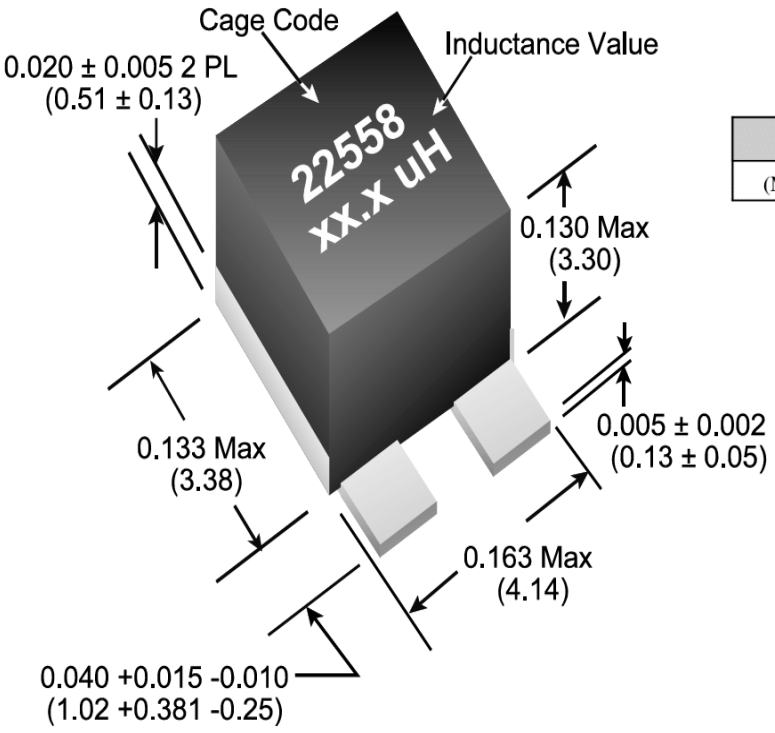
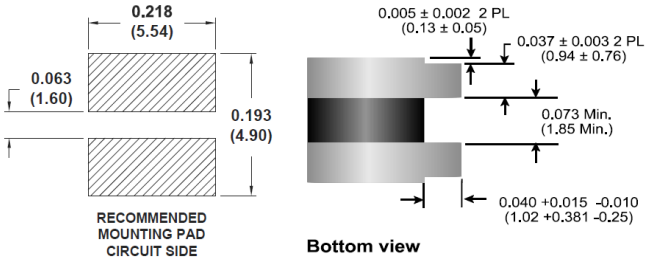
Fixed Chip Inductors – S11000 Series



Inches
(Millimeters)

MIL-STD-981
MIL-PRF-83446
Qualified Products List (QPL)
QPL: M83446/11



SPECIFICATIONS

- **Inductance:** 0.10 µH to 10000 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 500 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): 600 pieces
  Full Reel Quantity (No Tabs): 650 pieces
- Custom Designs: Other electrical configurations and performance characteristics are available in various sizes and package type

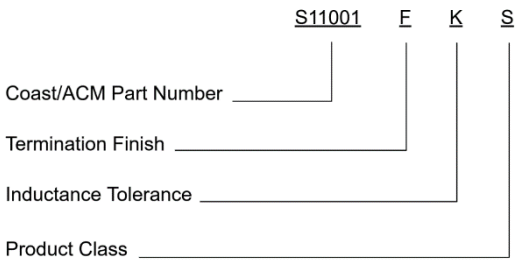
APPLICATIONS

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*

Fixed Chip Inductors – S11000 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							
M83446/11-01	S11001	M83446/11-62	S11062	0.10 ±10%	25	90	100	600	.03	1000
M83446/11-02	S11002	M83446/11-63	S11063	0.12 ±10%	25	90	100	520	.03	1000
M83446/11-03	S11003	M83446/11-64	S11064	0.15 ±10%	25	90	100	490	.03	1000
M83446/11-04	S11004	M83446/11-65	S11065	0.18 ±10%	25	90	100	460	.04	1000
M83446/11-05	S11005	M83446/11-66	S11066	0.22 ±10%	25	90	100	430	.04	1000
M83446/11-06	S11006	M83446/11-67	S11067	0.27 ±10%	25	100	113	370	.04	1000
M83446/11-07	S11007	M83446/11-68	S11068	0.33 ±10%	25	105	120	310	.05	750
M83446/11-08	S11008	M83446/11-69	S11069	0.39 ±10%	25	115	130	280	.05	750
M83446/11-09	S11009	M83446/11-70	S11070	0.47 ±10%	25	115	130	260	.05	750
M83446/11-10	S11010	M83446/11-71	S11071	0.56 ±10%	25	115	130	240	.06	700
M83446/11-11	S11011	M83446/11-72	S11072	0.68 ±10%	25	115	130	200	.06	700
M83446/11-12	S11012	M83446/11-73	S11073	0.82 ±10%	25	115	130	185	.06	700
M83446/11-13	S11013	M83446/11-74	S11074	1.0 ±10%	25	115	130	175	.09	650
M83446/11-14	S11014	M83446/11-75	S11075	1.2 ±10%	7.9	90	100	150	.09	650
M83446/11-15	S11015	M83446/11-76	S11076	1.5 ±10%	7.9	100	115	135	.14	600
M83446/11-16	S11016	M83446/11-77	S11077	1.8 ±10%	7.9	100	115	120	.20	500
M83446/11-17	S11017	M83446/11-78	S11078	2.2 ±10%	7.9	100	115	105	.30	400
M83446/11-18	S11018	M83446/11-79	S11079	2.7 ±10%	7.9	100	115	85	.40	350
M83446/11-19	S11019	M83446/11-80	S11080	3.3 ±10%	7.9	100	115	80	.46	330
M83446/11-20	S11020	M83446/11-81	S11081	3.9 ±10%	7.9	105	120	64	.52	310
M83446/11-21	S11021	M83446/11-82	S11082	4.7 ±10%	7.9	115	130	56	.54	300
M83446/11-22	S11022	M83446/11-83	S11083	5.6 ±10%	7.9	115	130	49	.60	285
M83446/11-23	S11023	M83446/11-84	S11084	6.8 ±10%	7.9	115	130	45	.66	270
M83446/11-24	S11024	M83446/11-85	S11085	8.2 ±10%	7.9	115	130	41	1.00	225
M83446/11-25	S11025	M83446/11-86	S11086	10.0 ±10%	7.9	115	130	39	1.20	200
M83446/11-26	S11026	M83446/11-87	S11087	12.0 ±10%	2.5	100	113	34	1.5	180
M83446/11-27	S11027	M83446/11-88	S11088	15.0 ±10%	2.5	100	113	30	1.8	170
M83446/11-28	S11028	M83446/11-89	S11089	18.0 ±10%	2.5	100	113	26	1.9	160
M83446/11-29	S11029	M83446/11-90	S11090	22.0 ±10%	2.5	105	120	23	2.1	150
M83446/11-30	S11030	M83446/11-91	S11091	27.0 ±10%	2.5	110	125	20	2.4	140
M83446/11-31	S11031	M83446/11-92	S11092	33.0 ±10%	2.5	115	130	18	2.7	130
M83446/11-32	S11032	M83446/11-93	S11093	39.0 ±10%	2.5	115	130	17	3.1	125
M83446/11-33	S11033	M83446/11-94	S11094	47.0 ±10%	2.5	115	130	16	3.2	125
M83446/11-34	S11034	M83446/11-95	S11095	56.0 ±10%	2.5	110	125	14	3.5	120
M83446/11-35	S11035	M83446/11-96	S11096	68.0 ±10%	2.5	110	125	12	4.0	111
M83446/11-36	S11036	M83446/11-97	S11097	82.0 ±10%	2.5	110	125	10	4.8	102
M83446/11-37	S11037	M83446/11-98	S11098	100.0 ±10%	2.5	110	125	9.4	5.7	93
M83446/11-38	S11038	M83446/11-99	S11099	120.0 ±10%	0.79	85	95	8.0	6.2	89
M83446/11-39	S11039	M83446/11-100	S11100	150.0 ±10%	0.79	85	95	8.0	6.3	89
M83446/11-40	S11040	M83446/11-101	S11101	180.0 ±10%	0.79	85	95	6.9	6.4	88
M83446/11-41	S11041	M83446/11-102	S11102	220.0 ±10%	0.79	85	95	6.1	7.4	82
M83446/11-42	S11042	M83446/11-103	S11103	270.0 ±10%	0.79	85	95	5.2	8.1	78
M83446/11-43	S11043	M83446/11-104	S11104	330.0 ±10%	0.79	100	113	4.6	8.8	75
M83446/11-44	S11044	M83446/11-105	S11105	390.0 ±10%	0.79	100	113	4.0	9.7	72
M83446/11-45	S11045	M83446/11-106	S11106	470.0 ±10%	0.79	100	113	3.6	10.0	69
M83446/11-46	S11046	M83446/11-107	S11107	560.0 ±10%	0.79	100	113	2.8	11.0	66
M83446/11-47	S11047	M83446/11-108	S11108	680.0 ±10%	0.79	100	113	2.3	12.0	64
M83446/11-48	S11048	M83446/11-109	S11109	820.0 ±10%	0.79	95	106	2.1	17.0	53
M83446/11-49	S11049	M83446/11-110	S11110	1000.0 ±10%	0.79	95	106	2.0	22.0	47
M83446/11-50	S11050	M83446/11-111	S11111	1200.0 ±10%	0.25	75	87	1.7	24.0	45
M83446/11-51	S11051	M83446/11-112	S11112	1500.0 ±10%	0.25	75	87	1.6	25.0	44
M83446/11-52	S11052	M83446/11-113	S11113	1800.0 ±10%	0.25	75	87	1.5	27.0	43
M83446/11-53	S11053	M83446/11-114	S11114	2200.0 ±10%	0.25	75	87	1.4	30.0	40
M83446/11-54	S11054	M83446/11-115	S11115	2700.0 ±10%	0.25	75	87	1.3	34.0	38
M83446/11-55	S11055	M83446/11-116	S11116	3300.0 ±10%	0.25	75	87	1.2	39.0	35
M83446/11-56	S11056	M83446/11-117	S11117	3900.0 ±10%	0.25	75	87	1.1	56.0	29
M83446/11-57	S11057	M83446/11-118	S11118	4700.0 ±10%	0.25	75	87	1.0	70.0	26
M83446/11-58	S11058	M83446/11-119	S11119	5600.0 ±10%	0.25	75	87	0.90	80.0	25
M83446/11-59	S11059	M83446/11-120	S11120	6800.0 ±10%	0.25	75	85	0.80	90.0	23
M83446/11-60	S11060	M83446/11-121	S11121	8200.0 ±10%	0.25	75	85	0.70	100.0	22
M83446/11-61	S11061	M83446/11-122	S11122	10000.0 ±10%	0.25	75	85	0.70	110.0	21