INCH-POUND

MS14046C
2 June 2003
SUPERSEDING
MS14046B
18 January 1995

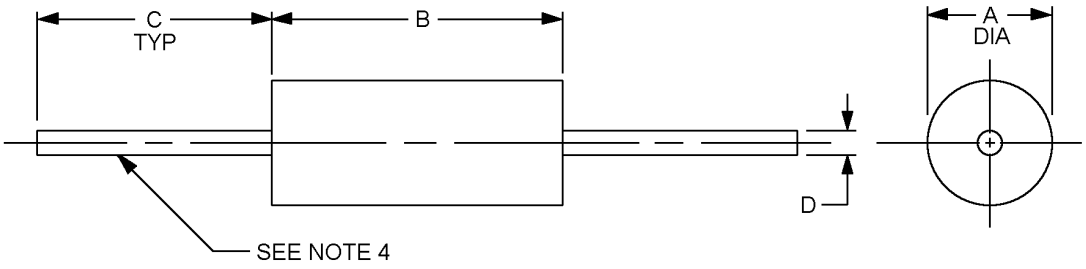
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, MICROMINIATURE, (IRON CORE) TYPES LT10K128 TO LT10K137

Inactive for new design after 16 September 1985.
For new design, use MIL-PRF-39010/7.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the products described herein shall consist of this specification and MIL-C-15305.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.146 (3.71)	.166 (4.22)
B	.365 (9.27)	.385 (9.78)
C	1.250 (31.75)	1.625 (41.28)
D	.023 (0.58)	.027 (0.69)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These coils are intended to be mounted by their leads.
4. Solderable/weldable lead wire, AWG number 22.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

Design, construction, and physical dimensions: See figure 1.

Style: LT10.

Grade: 1.
Class: A.

Weight: 0.0317 ounce maximum.

Operating temperature range: -55° to +105°C.

Ambient temperature: 90°C maximum.

Temperature rise: 15°C maximum.

Terminal pull: 5 pounds minimum, is not applicable in inspection table VI, group B of MIL-PRF-15305.

Altitude: 70,000 feet.

Shock, specified pulse: MIL-STD-202, method 213, test condition I, is applicable.

Dielectric withstanding voltage:

At sea level: MIL-STD-202, method 301, test voltage 1,000 V rms for a minimum of 60 seconds.

At reduced barometric pressure: MIL-STD-202, method 105, test condition C, test voltage 200 V rms for a minimum of 60 seconds.

Electrical characteristics: See tables I and II.

Inductance: See table I.

Q values: See table I.

Self-resonant frequency (SRF): See table I.

DC resistance (DCR): See table I.

Part or Identifying Number (PIN): MS14046- (dash number from table I).

TABLE 1. Electrical characteristics (initial).

Dash number 1/	Type designation 2/	Superseded MS PIN	Inductance (μH)	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance (ohms)	Rated dc current (mA)
-1	LT10K128	MS18130-17	5.60 ± 10%	45	7.9	60	.32	495
-2	LT10K129	MS18130-18	6.80 ± 10%	50	7.9	55	.50	395
-3	LT10K130	MS18130-19	8.20 ± 10%	50	7.9	50	.60	360
-4	LT10K131	MS18130-20	10.00 ± 10%	55	7.9	45	.90	290
-5	LT10K132	MS18130-21	12.00 ± 10%	65	2.5	42	1.10	265
-6	LT10K133	MS18130-22	15.00 ± 10%	65	2.5	40	1.40	240
-7	LT10K134	MS18130-23	18.00 ± 10%	75	2.5	34	2.25	185
-8	LT10K135	MS18130-24	22.00 ± 10%	75	2.5	30	2.50	175
-9	LT10K136	MS18130-25	27.00 ± 10%	60	2.5	25	2.60	170
-10	LT10K137	MS18130-26	33.00 ± 10%	65	2.5	19	3.00	165

1/ The dash number added to MS military standard number constitutes the MS PIN; for example MS18130-1.

2/ The decrease in maximum operating temperature from 125°C to 105°C does not downgrade these coils but assures satisfactory operation at 105°C for a minimum of 2,000 hours of life rather than a shorter period of operation at 125°C.

TABLE II. Electrical characteristics (final). 1/

Inspection group	Allowable variation from Initial measurement		Allowable percent from specified minimum value in electrical characteristics (initial) table	
	Inductance (percent)	DC resistance	Self-resonant frequency	Q
Qualification inspection				
Group II	±2	---	---	-10
Group III	±5	±(3% +.001 ohm)	-8	-10
Group IV 2/	±5	±(2% +.001 ohm)	-10	-15
Conformance inspection group C				
Subgroup I	±2	---	---	-10
Subgroup II 2/	±5	±(2% +.001 ohm)	-10	-15
Subgroup III	±5	±(3% +.001 ohm)	-8	-10

1/ Test fixture allowance of +.01 μH shall be added to all change in inductance limits ±(_ percent +.01 μH).

2/ The polarizing voltage during the moisture resistance tests Is applied with the positive lead connected to the coil terminals tied together, and the negative lead connected to the metal strap.

Custodians:
Army – CR
Navy – EC
Air Force – 11

Review activities:
Army – AR, CR4, MI
Navy – AS, MC, OS, SH
Air Force – 19

Preparing activity:
DLA – CC

(Project 5950-1144)