

INCH-POUND

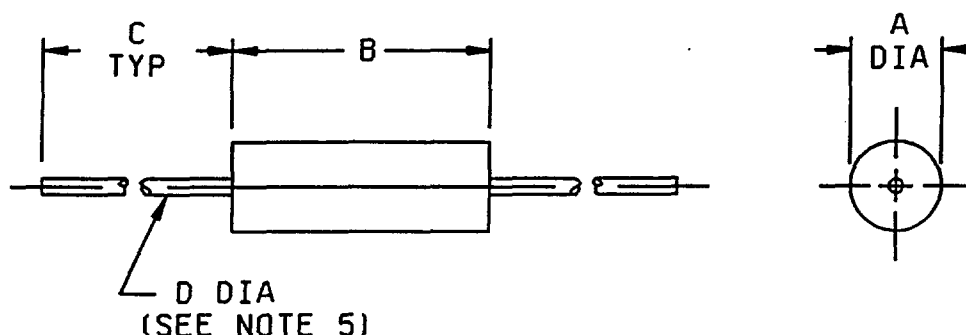
MS90539C  
11 August 1993  
~~SUPERSEDING~~  
MS90539B  
5 April 1990

## MILITARY SPECIFICATION SHEET

COIL, RADIO FREQUENCY, MOLDED, FIXED  
SUBMINIATURE (IRON CORE) TYPES LT10K022 TO LT10K036

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

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-C-15305.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.180 (4.57)	.200 (5.08)
B	.430 (10.92)	.450 (11.43)
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 information only.
3. These coils are intended to be mounted by their leads.
4. 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.
5. Tinned, solid copper wire, AWG 22.
6. Shock, specified pulse, MIL-STD-202, method 213, test condition I, is applicable.
7. In the event of conflict between the text of this document and the references cited herein, the text of this document shall take precedence.
8. Referenced Government documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation form a part of this standard to the extent specified herein.

FIGURE 1. Dimensions and configurations.

Ⓒ denotes changes

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## REQUIREMENTS:

Design, construction and physical dimensions: see figure 1.

Style: LT10

Grade: 1

Class: A

Weight: .95 grams maximum.

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

Ambient temperature: 90°C maximum.

Temperature rise: 15°C maximum.

Terminal pull: 5 pounds maximum.

Altitude: 70,000 feet.

Dielectric withstanding voltage (sea level): Method 301 of MIL-STD-202, test voltage 700 V rms for a minimum of 60 seconds.

Barometric pressure (reduced): Method 105 of MIL-STD-202, test condition C, test voltage 180 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: See table I.

DC resistance: See table I.

TABLE I. Electrical characteristics (initial).

Dash no. 1/	Type designation	Ⓢ Inductance ±5% (μH)	Q min.	Test frequency (MHz)	Self-resonant frequency, min (MHz)	Maximum DCR (ohms)	Rated DC current (mA)
01	LT10K022	270	65	.79	5.6	8.2	110
02	LT10K023	300	65	.79	5.3	8.7	107
03	LT10K024	330	65	.79	5.0	9.1	105
04	LT10K025	360	65	.79	4.7	9.6	102
05	LT10K026	390	65	.79	4.5	10.0	100
06	LT10K027	430	65	.79	4.3	10.6	97
07	LT10K028	470	65	.79	4.0	11.1	95
08	LT10K029	510	65	.79	3.8	11.6	93
09	LT10K030	560	65	.79	3.6	12.3	91
10	LT10K031	620	60	.79	3.5	13.0	88
11	LT10K032	680	60	.79	3.4	13.7	85
12	LT10K033	750	60	.79	3.3	14.4	83
13	LT10K034	820	60	.79	3.1	15.1	81
14	LT10K035	910	60	.79	2.9	15.8	79
15	LT10K036	1000	60	.79	2.24	16.5	78

1/ The dash number added to the MS military standard number constitutes the MS PIN, for example, MS90539-01.

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Part or Identifying Number (PIN): MS90539-(dash number from table I).

TABLE II. Electrical characteristics (final).

Inspection group	Allowable variation from initial measurement		Allowable % from specified minimum value in Electrical Characteristics (initial) table	
	Inductance	DC resistance	Self-resonant	Q
	Percent			
Qualification inspection:				
Group II	±2	- - - -	- - - -	-10
Group III	±5	±(3% +.001 ohm)	-8	-10
Group IV	±5	±(2% +.001 ohm)	-10	-15
Quality conformance inspection:				
Group C				
Subgroup I	±2	- - - -	- - - -	-10
Subgroup II	±5	±(2% +.001 ohm)	-10	-15
Subgroup III	±5	±(3% +.001 ohm)	-8	-10

## CONCLUDING MATERIAL

Custodians:  
Army - ER  
Navy - EC  
Air Force - 80

Review activities:  
Army - MI, CR  
Air Force - 17

User activities:  
Army - AR  
Navy - AS, MC, OS, SH  
Air Force - 19

Preparing activity:  
Army - ER

Agent:  
DLA - ES

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