

INCH-POUND

MS75087C
16 February 1995

SUPERSEDING
MS75087B

4 September 1985

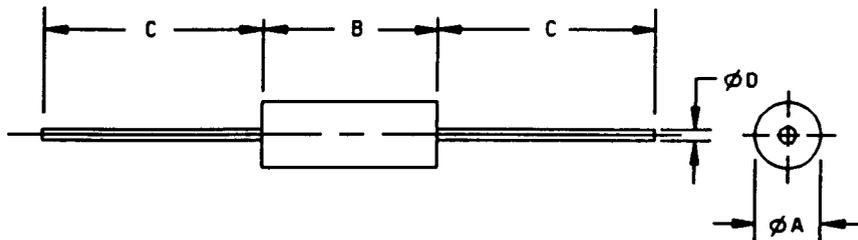
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, MICRO-MINIATURE,
MAGNETICALLY SHIELDED (PHENOLIC CORE-IRON SLEEVE)
TYPES LT10K191 TO LT10K202, INCLUSIVE

Inactive for new design after 4 September 1985.
For new design, use MIL-C-39010/1.

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 are in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
ϕA	.152 (3.86)	.172 (4.37)
B	.390 (9.91)	.430 (10.92)
C	1.250 (31.75)	1.626 (41.30)
ϕD	.023 (0.58)	.027 (0.69)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

FIGURE 1. Dimensions and configuration.

Ⓒ denotes changes

MS75087C

REQUIREMENTS:

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

Style: LT10.
Grade: 1.
Class: A.

Ⓒ Weight: 0.03 ounce maximum.

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

Ambient temperature: 90°C.

Temperature rise: 15°C.

Terminal pull: 5 pounds.

Altitude: 70,000 feet.

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

Dielectric withstanding voltage (sea level): MIL-STD-202, method 301, test voltage of 1,000 V rms for a minimum of 60 seconds

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

Percent coupling: 3 percent maximum.

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.

Ⓒ Part or Identifying Number (PIN): MS75087-(dash number from table I).

TABLE I. Electrical characteristics (initial) and dash numbers.

Dash no. 1/	Type designation 2/	Superseded MS PIN	Inductance (μH)	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance (ohms)	Rated dc current (mA)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	LT10K191	MS90537-1	.10 ±10%	50	25	250	.025	1,790
-2	LT10K192	MS90537-2	.12 ±10%	51	25	250	.034	1,530
-3	LT10K193	MS90537-3	.15 ±10%	51	25	250	.037	1,470
-4	LT10K194	MS90537-4	.18 ±10%	50	25	250	.047	1,300
-5	LT10K195	MS90537-5	.22 ±10%	49	25	250	.067	1,100
-6	LT10K196	MS90537-6	.27 ±10%	47	25	250	.11	855
-7	LT10K197	MS90537-7	.33 ±10%	46	25	250	.13	780
-8	LT10K198	MS90537-8	.39 ±10%	44	25	250	.18	670
-9	LT10K199	MS90537-9	.47 ±10%	44	25	235	.25	565
-10	LT10K200	MS90537-10	.56 ±10%	43	25	210	.33	490
-11	LT10K201	MS90537-11	.68 ±10%	42	25	190	.45	420
-12	LT10K202	MS90537-12	.82 ±10%	40	25	180	.59	370

1/ The dash number added to MS military standard number constitutes the MS PIN; for example MS75087-1

2/ The coils specified herein are substitutes for the inactivated coils on MS90537, providing the small decrease in physical dimensions are not a factor. 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	±5	---	---	-10
Group III	±5	±(3% +.001 ohm)	-8	-10
Group IV	±5	±(2% +.001 ohm)	-5	-10
Quality conformance inspection group C				
Subgroup I	±5	---	---	-10
Subgroup II	±5	±(2% +.001 ohm)	-5	-10
Subgroup III	±5	±(3% +.001 ohm)	-8	-10

① 1/ Test fixture allowance of $+0.01 \mu\text{H}$ shall be added to all change in inductance limits $\pm(\text{ _ percent } +.01 \mu\text{H})$.

Application notes:

1. These coils are intended to be supported by their leads.
2. Solderable/weldable lead wire AWG 24.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities:

Army - AR, ME, MI
Navy - AS, MC, OS, SH
Air Force - 17, 19
DLA - ES

Preparing activity:
Army - ER

Agent:
DLA - ES

(Project 5950-0864)