INCH-POUND

MS21399B
24 August 2007
SUPERSEDING
MS21399A
3 August 1979

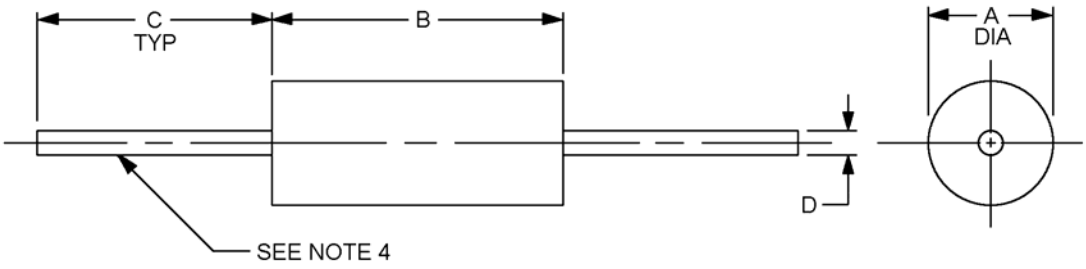
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, MICRO-MINIATURE, MAGNETICALLY SHIELDED, (PHENOLIC CORE-IRON SLEEVE), TYPES LT10K457 TO LT10K468 INCL.

Inactive for new design
after 21 Februarv 2003

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-PRF-15305.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Tolerance
A	.136 (3.45)	Max
B	.335 (8.51)	± .010 (0.25)
C	1.438 (36.53)	± .188 (4.78)
D	.020 (0.51)	± .002 (0.05)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These coils are intended to be supported by their leads.
4. Tinned copper lead wire, AWG number 24.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

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

Style: LT10

Grade: 1
Class: A

Weight: .50 grams, maximum.

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

Ambient temperature: + 90°C maximum.

Temperature rise: 15°C.

Terminal pull: 5 pounds minimum.

Altitude: 70,000 feet.

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

Dielectric withstanding voltage:

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

At reduced barometric pressure: Method 105 of MIL-STD-202, test condition C, test voltage100 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 (SRF): See table I.

DC resistance (DCR): See table I. DC resistance shall be the last measurement taken in the electrical characteristics test sequence.

Part or Identifying Number (PIN): MS21399 - (dash number from table I).

TABLE 1. Electrical characteristics (initial).

Dash number 1/	Inductance (μH) ±10%	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance at 25°C max (ohms)	Max rated DC current (mA)
-01	.10	42	25	480	.087	1038
-02	.12	42	25	460	.090	1021
-03	.15	42	25	400	.098	978
-04	.18	42	25	360	.117	895
-05	.22	42	25	340	.141	815
-06	.27	42	25	320	.157	773
-07	.33	42	25	295	.178	726
-08	.39	42	25	275	.208	671
-09	.47	41	25	250	.257	604
-10	.56	39	25	238	.283	576
-11	.68	36	25	224	.337	527
-12	.82	35	25	205	.470	447

1/ The dash number added to the MS military standard number constitutes the MS part number, for example, MS21399-01

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
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/ After the overload test is performed, a period of 24 hours shall elapse prior to taking electrical characteristics (final) measurements.

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Referenced documents.

MIL-PRF-15305
MIL-STD-202

Custodians:
Army – CR
Navy - EC
Air Force – 11
DLA - CC

Review activities:
Air Force – 19

Preparing activity:
DLA – CC

(Project 5950-2007-019)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at http://assist.daps.dla.mil.