

INCH-POUND

MS75083E
31 August 2007
SUPERSEDING
MS75083D
16 February 1995

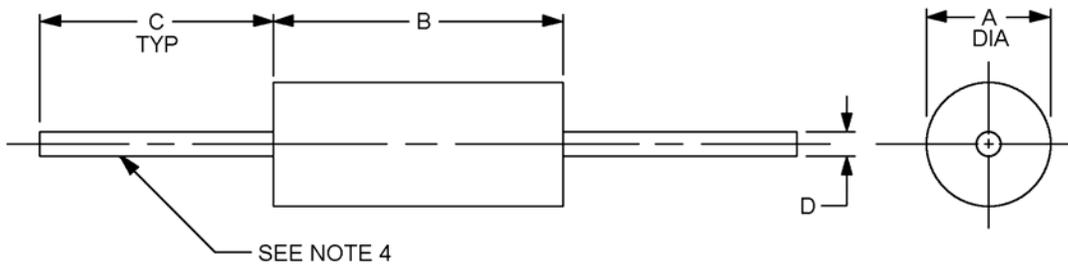
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, (PHENOLIC CORE),
LT4K339 TO LT4K351, INCL.

Inactive for new design, after 4 September 1985.
For new design, use MIL-PRF-39010/8.

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	Maximum
A	.085 (2.16)	.105 (2.67)
B	.240 (6.10)	.260 (6.60)
C	1.250 (31.75)	1.625 (41.28)
D	.0185 (0.470)	.0215 (0.546)

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. Solderable/weldable lead wire, number 24 AWG.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

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

Weight: 0.0106 ounce, maximum.

Operating temperature range: -55° to +125°C.

Ambient temperature: + 90°C maximum.

Terminal pull: 5 pounds, minimum

Altitude: 70,000 feet with a test voltage of 300 V rms.

Dielectric withstanding voltage:

At sea level: Method 301 of MIL-STD-202, test voltage 1,000 V rms.

At reduced barometric pressure: Method 105 of MIL-STD-202, test condition C.

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): MS75083 - (dash number from table I).

TABLE 1. Electrical characteristics (initial).

Dash Number MS75083	Type Designation	Inductance (μ H) $\pm 10\%$	Q Min.	Test Frequency (MHz)	SRF Minimum (MHz)	DC resistance (25°C) max (Ohms)	Rated DC current, (mA) <u>1/</u>
-1	LT4K339	.10	40	25.0	680	.08	1,350
-2	LT4K340	.12	40	25.0	640	.09	1,270
-3	LT4K341	.15	38	25.0	600	.10	1,200
-4	LT4K342	.18	35	25.0	550	.12	1,105
-5	LT4K343	.22	33	25.0	510	.14	1,025
-6	LT4K344	.27	33	25.0	430	.16	960
-7	LT4K345	.33	30	25.0	410	.22	815
-8	LT4K346	.39	30	25.0	365	.30	700
-9	LT4K347	.47	30	25.0	330	.35	650
-10	LT4K348	.56	30	25.0	300	.50	545
-11	LT4K349	.68	28	25.0	275	.60	495
-12	LT4K350	.82	28	25.0	250	.85	415
-13	LT4K351	1.00	25	25.0	230	1.00	385

1/ For the overload test, direct current shall be used. The value of this current shall be 1.5 times the rated dc current.

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	$\pm(3\% +.001 \text{ ohm})$	-8	-10
Group IV	± 5	$\pm(2\% +.001 \text{ ohm})$	-10	-15
Conformance inspection group C				
Subgroup I	± 2	---	---	-10
Subgroup II	± 5	$\pm(2\% +.001 \text{ ohm})$	-10	-15
Subgroup III	± 5	$\pm(3\% +.001 \text{ ohm})$	-8	-10

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. The polarization voltage during moisture 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.
2. The temperature rise, terminal twist test are applicable.

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

Preparing activity:

DLA – CC

Project 5950-2007-036

Review activities:

Army – AR, CR4, MI
Navy – AS, CG, MC, OS, SH
Air Force – 19, 99

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>.