

INCH-POUND

MS75008F  
 31 August 2007  
 SUPERSEDING  
 MS75008E  
 4 September 1985

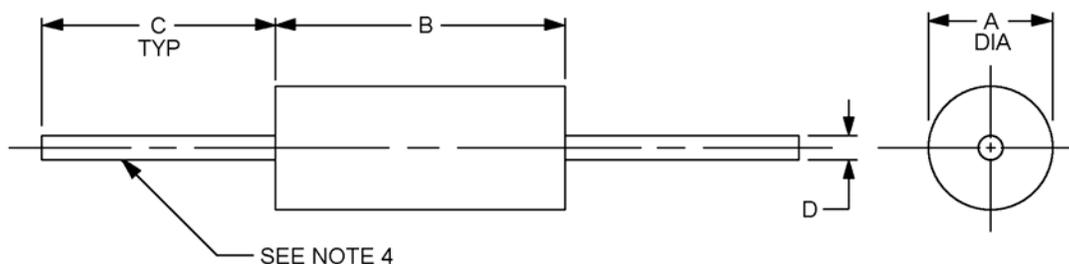
## MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED,  
 SUBMINIATURE (PHENOLIC CORE),  
 LT4K027 TO LT4K039, INCL.

Inactive for new design,  
 Use MIL-PRF-39010/4

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	.156 (3.96)	.219 (5.56)
B	.406 (10.31)	.469 (11.91)
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, number 22 AWG.

FIGURE 1. Dimensions and configuration.

MS75008F

REQUIREMENTS:

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

Weight: .95 gram, maximum.

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

Ambient temperature: + 90°C maximum.

Temperature rise: 35°C.

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 1,000 V rms for a minimum of 60 seconds.

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

Marking: Marking shall be as specified in MIL-PRF-15305 except that the marking shall be on the unit package or container.

Part or Identifying Number (PIN): MS75008 - (dash number from table I).

## MS75008F

TABLE 1. Electrical characteristics (initial).

Dash Number MS75008	Type designation	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	SRF Minimum (MHz)	DC resistance max (Ohms)	Rated DC current, maximum (mA)
-21	LT4K027	0.15 $\pm$ 20%	55	25	510	0.030	3,000
-22	LT4K028	0.22 $\pm$ 20%	50	25	415	0.035	2,800
-23	LT4K029	0.33 $\pm$ 20%	50	25	350	0.065	2,000
-24	LT4K030	0.47 $\pm$ 20%	50	25	300	0.085	1,700
-25	LT4K031	0.56 $\pm$ 10%	50	25	270	0.125	1,450
-26	LT4K032	0.68 $\pm$ 10%	45	25	250	0.150	1,300
-27	LT4K033	0.82 $\pm$ 10%	40	25	210	0.205	1,100
-28	LT4K034	1.00 $\pm$ 10%	40	25	200	0.290	930
-29	LT4K035	1.20 $\pm$ 10%	30	7.9	180	0.400	785
-30	LT4K036	1.50 $\pm$ 10%	30	7.9	170	0.485	700
-31	LT4K037	1.80 $\pm$ 10%	30	7.9	150	0.740	580
-32	LT4K038	2.20 $\pm$ 10%	30	7.9	140	0.970	505
-33	LT4K039	2.70 $\pm$ 10%	30	7.9	120	1.20	460

TABLE II. Electrical characteristics (final).

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

## 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. Former MS part numbers MS75008-34 through MS75008-45 have been superseded by MS75101-1 through MS75101-12, respectively.

MS75008F

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 5950-2007-034

Review activities:

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

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>.