

INCH-POUND

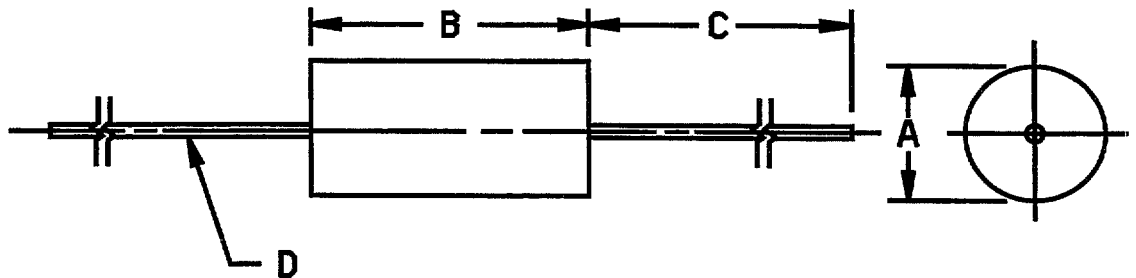
MIL-PRF-39010/1E  
 27 August 1997  
 SUPERSEDING  
 MIL-C-39010/1D  
 4 January 1994

PERFORMANCE SPECIFICATION SHEET

COILS, FIXED, RADIO FREQUENCY, MOLDED, MICROMINIATURE,  
 MAGNETICALLY SHIELDED (PHENOLIC CORE-IRON SLEEVE),  
 ESTABLISHED RELIABILITY AND NONESTABLISHED RELIABILITY

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 MIL-PRF-39010.



Letter	Dimensions are in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.152 (3.86)	.172 (4.37)
B	.390 (9.91)	.430 (10.92)
C	1.250 (31.75)	1.626 (41.30)
D	.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.

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REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Material: Phenolic core with iron sleeve.

Weight: 0.03 ounce maximum.

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

Dielectric withstanding voltage: Method 301 of MIL-STD-202; test voltage of 1,000 V rms.

Barometric pressure: Method 105 of MIL-STD-202, test condition C, 70,000 feet with a test voltage of 200 V rms.

Electrical characteristics: See table I and table II.

Inductance: See table I.

Inductance tolerance: See table I.

Q values: See table I.

Self-resonant frequency: See table I.

Percent coupling: 3 percent maximum.

DC resistance: See table I.

Temperature rise: 15°C.

Terminal pull: 5 pounds.

Part or Identifying Number (PIN): M39010/01 (dash number from table I).

Supersession data: This specification supersedes MS75087 dated 4 September 1985.

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

Dash number <u>1/</u>	Inductance $\mu$ H	Inductance tolerance $\pm$ percent	Q minimum	Test frequency (MHz)	Self-resonant frequency minimum (MHz)	DC resistance (25°C) maximum (ohms)	Rated dc current (mA) <u>2/</u>
AR10**	.10	5, 10	50	25	250	.025	1,790
AR11**	.11	5	50	25	250	.034	1,530
AR12**	.12	5, 10	50	25	250	.034	1,530
AR13**	.13	5	50	25	250	.037	1,470
AR15**	.15	5, 10	50	25	250	.037	1,470
AR16**	.16	5	50	25	250	.047	1,300
AR18**	.18	5, 10	50	25	250	.047	1,300
AR20**	.20	5	49	25	250	.067	1,100
AR22**	.22	5, 10	49	25	250	.067	1,100
AR24**	.24	5	47	25	250	.11	853
AR27**	.27	5, 10	47	25	250	.11	853
AR30**	.30	5	46	25	250	.13	780
AR33**	.33	5, 10	46	25	250	.13	780
AR36**	.36	5	44	25	250	.18	670
AR39**	.39	5, 10	44	25	250	.18	670
AR43**	.43	5	44	25	235	.25	565
AR47**	.47	5, 10	44	25	235	.25	565
AR51**	.51	5	43	25	210	.33	490
AR56**	.56	5, 10	43	25	210	.33	490
AR62**	.62	5	42	25	190	.45	420
AR68**	.68	5, 10	42	25	190	.45	420
AR75**	.75	5	40	25	180	.59	370
AR82**	.82	5, 10	40	25	180	.59	370

1/ The complete dash number will include two additional letters (indicated by \*\*). The first additional letter will indicate the inductance tolerance and the second additional letter will indicate the product level (e.g., C, M, P, R, S) and will be added to the end of the dash number.

2/ The rated dc current is based on 90°C ambient temperature with a 15°C rise.

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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 IV	±5	±(3% +.001 ohm)	<u>2/</u>	-10
Group V	±5	±(2% +.001 ohm)	<u>2/</u>	-10
Quality conformance inspection				
Group B				
Subgroup 1	±5	±(2% +.001 ohm)	<u>2/</u>	-10
Subgroup 3	±5			-10
Subgroup 4	±5	±(3% +.001 ohm)	<u>2/</u>	-10

1/ Test fixture allowance of +.01 μH shall be added to all change in inductance limits ±( \_ percent +.01 μH).

2/ The self-resonant frequency shall be not less than the value specified in table I.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:  
 Army - CR  
 Navy - EC  
 Air Force - 85

Preparing activity:  
 Army - CR

Agent:  
 DLA - CC

Review activities:  
 Army - AR, CR4, MI  
 Navy - AS, CG, MC, OS, SH  
 Air Force - 17, 19, 99  
 DLA - CC

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