

INCH-POUND

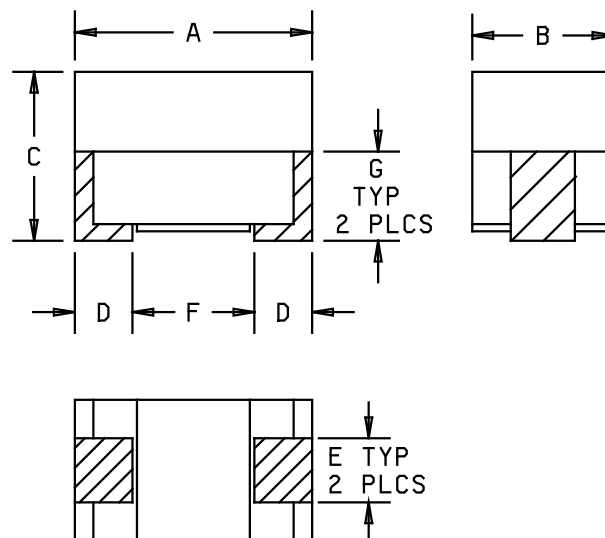
MIL-PRF-83446/34A
w/AMENDMENT 2
2 September 2025
SUPERSEDING
MIL-PRF-83446/34A
w/AMENDMENT 1
4 May 2020

PERFORMANCE SPECIFICATION SHEET

COILS, RADIO FREQUENCY, CHIP, MAGNETICALLY SHIELDED,
IRON CORE-IRON SLEEVE, AND IRON CORE-FERRITE SLEEVE

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-83446.



	Inches	Millimeters
A	.300 to .325	7.62 to 8.26
B	.105 to .125	2.67 to 3.18
C	.125 to .145	3.18 to 3.68
D	.020 Min.	.508 Min.
E	.040 to .060	1.02 to 1.52
F	.190 Ref.	4.83 Ref.
G	.070 Ref.	1.78 Ref.

NOTES:

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

FIGURE 1. Dimensions and configuration.



MIL-PRF-83446/34A
w/AMENDMENT 2

TABLE I. Electrical characteristics (initial).

Dash Number	Inductance $\mu\text{H} \pm 10\%$	Q (min)	Test Frequency (L and Q) MHz	Self Resonant Frequency MHz (min)	DC Resistance Ohms (max)	Current Rating mA (max)	Incremental current Dc (mA)	Material
-01	.10	45	25	<u>1/</u> 490	.10	670	670	<u>2/</u>
-02	.12	45	25	<u>1/</u> 430	.11	635	635	
-03	.15	45	25	<u>1/</u> 415	.12	610	610	
-04	.18	45	25	<u>1/</u> 375	.13	585	585	
-05	.22	45	25	<u>1/</u> 330	.15	545	545	
-06	.27	45	25	<u>1/</u> 300	.16	530	530	
-07	.33	44	25	<u>1/</u> 260	.18	495	495	
-08	.39	42	25	230	.19	485	485	
-09	.47	41	25	220	.21	460	460	
-10	.56	41	25	210	.23	440	440	
-11	.68	39	25	180	.24	430	430	
-12	.82	38	25	165	.27	405	405	
-13	1.00	37	25	150	.30	385	385	
-14	1.20	40	7.9	130	.73	247	247	
-15	1.50	41	7.9	115	.86	228	228	
-16	1.80	43	7.9	105	.95	217	217	
-17	2.20	45	7.9	95	1.10	202	202	
-18	2.70	48	7.9	90	1.20	193	193	
-19	3.30	49	7.9	80	1.30	185	185	
-20	3.90	50	7.9	75	1.50	173	173	
-21	4.70	50	7.9	70	2.40	136	136	
-22	5.60	50	7.9	60	2.90	124	124	
-23	6.80	50	7.9	55	3.20	118	118	
-24	8.20	50	7.9	53	3.60	111	111	
-25	10.0	50	7.9	50	4.00	106	106	
-26	12.0	36	2.5	35	3.00	122	122	<u>3/</u>
-27	15.0	38	2.5	30	3.40	115	115	
-28	18.0	40	2.5	26	3.80	108	108	
-29	22.0	40	2.5	24	4.90	96	96	
-30	27.0	40	2.5	21	5.80	88	88	
-31	33.0	41	2.5	20	6.50	83	83	
-32	39.0	42	2.5	19	7.90	75	75	
-33	47.0	44	2.5	16	9.30	69	69	
-34	56.0	44	2.5	15	11.0	64	64	
-35	68.0	45	2.5	13	12.0	61	61	
-36	82.0	45	2.5	11	13.0	59	59	
-37	100.0	40	2.5	10.5	16.8	51	51	

1/ Estimate only.

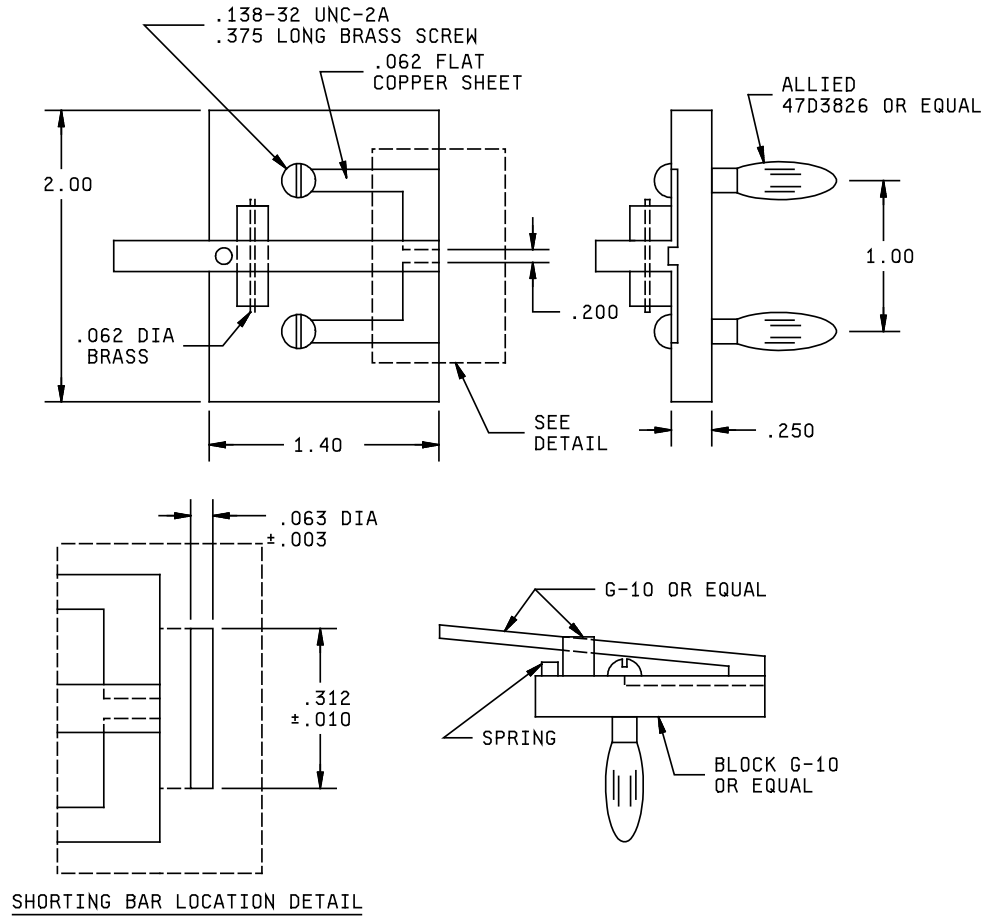
2/ Material for PIN's MIL-PRF-83446/34-01 through MIL-PRF-83446/34-25 is iron core-iron sleeve.

3/ Material for PIN's MIL-PRF-83446/34-26 through MIL-PRF-83446/34-37 is iron core-ferrite sleeve.

TABLE II. Electrical characteristics (final).

Inspection group	Allowable percent variation from the initial measurement			
Qualification Inspection:	Inductance	Q	Self-resonant Frequency	DC resistance
Group II	±10	-20	-15	±3 (+.001 ohm)
Group IV	±10	-20	-15	±3 (+.001 ohm)
Group V	±10	-20	-----	-----
Quality Conformance Inspection:				
Group C				
Subgroup II	±10	-20	-15	±3 (+.001 ohm)
Subgroup IV	±10	-20	-15	±3 (+.001 ohm)

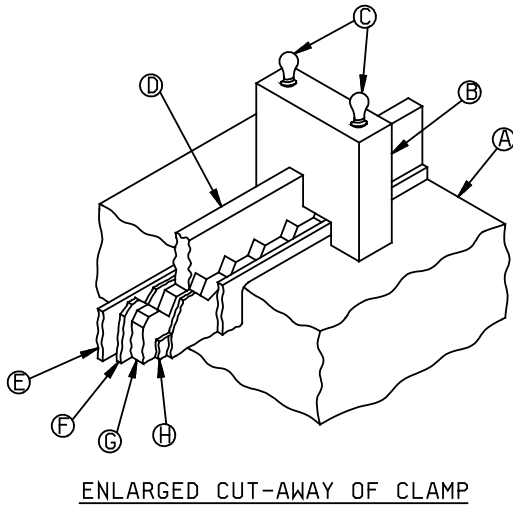
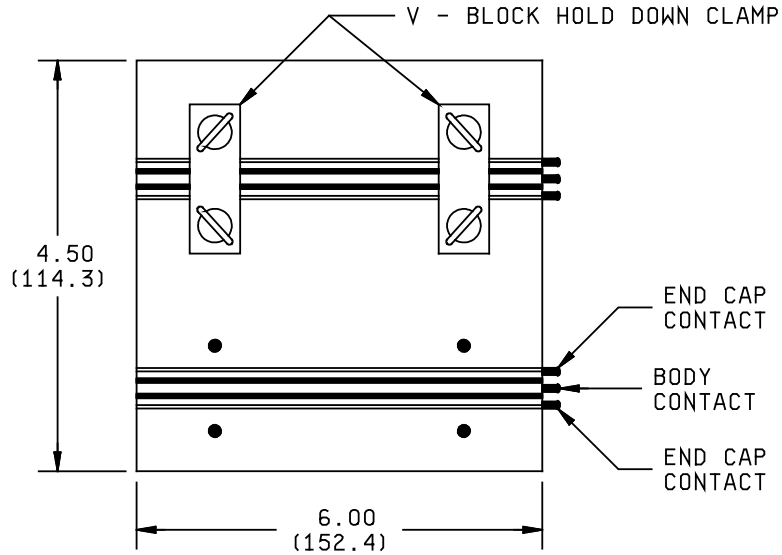
MIL-PRF-83446/34A
w/AMENDMENT 2



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Shorting bar material is brass.
4. The total fixture and residual inductance is approximately $.049\mu\text{H}$ (for references only).

FIGURE 2. General test fixture. (TF-388)



Legend	
LTR	Description
A	G-10 base
B	Upper V-block hold-down clamp
C	Clamp screws
D	Upper V-block (body contact)
E	End cap contact retaining wall
F	End cap contact V-block (in contact with E)
G	Lower V-block (body contact)
H	G-10 insulators (separating G from F/E)

NOTES:

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

FIGURE 3. Test fixture for insulation resistance, dielectric withstanding voltage and barometric pressure.

REQUIREMENTS:

Dimensions and configuration: See [figure 1](#).

Bond strength: Force 2 pounds.

Weight: 0.30 gram maximum.

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

Temperature rise (at +90°C): +15°C.

Maximum operating temperature: +105°C.

Altitude: 70,000 feet.

Dielectric withstanding voltage: [MIL-STD-202-301](#), test voltage 200 volts rms.

Barometric pressure: [MIL-STD-202-105](#), test condition C (70,000 feet), test voltage 80 volts rms.

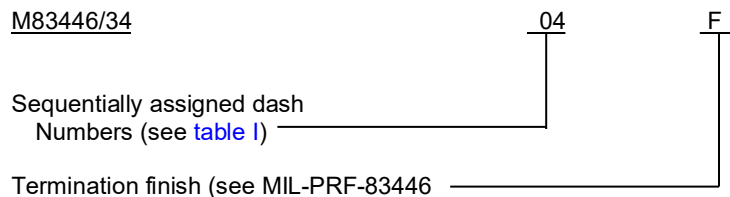
Electrical characteristics (initial): See [table I](#).

Percent coupling: 3 percent maximum.

Electrical characteristics (final): See [table II](#).

Test fixture: Tests shall be performed using test fixtures shown on [figure 2](#) and [3](#), or equivalent.

Part or Identifying Number (PIN): The PIN shall be in the following form:



Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Referenced documents. In addition to MIL-PRF-83446, this document references the following:

[MIL-STD-202-105](#)
[MIL-STD-202-301](#)

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5950-2025-041)

Review activities:

Army - MI
Navy - AS, OS
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 <https://assist.dla.mil>.