

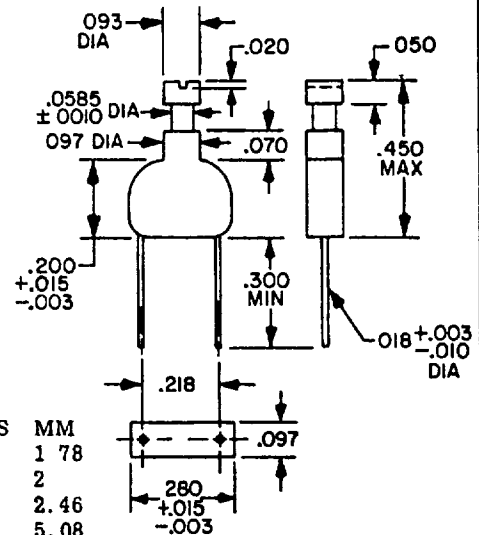
User activities: Army MU
Navy AS SH, MC, OS
Air Force 19

Reviewer activities: Army MI, SG
Navy EC, OS
Air Force 11, 17, 99
DSA - ES

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

RATINGS

| | |
|-----------------------------------|-------------------|
| Style | LT11 |
| Grade | 2 |
| Class | A |
| Operating temperature range | -55°C to +105°C |
| Ambient temperature | 90°C max |
| Temperature rise | 15°C max |
| Power dissipation | 225 mW max |
| Dielectric withstanding voltages: | |
| Sea level | 1,000 Vrms min |
| Reduced barometric pressure | 200 Vrms min |
| Terminal pull | 2 lb. min |
| Tuning torque | .005 - .2 in. oz. |
| Stop torque | .2 in. oz. max |
| Altitude | 70,000 feet |
| Weight | 25 gram max |



| INCHES | MM | INCHES | MM |
|--------|------|--------|-------|
| .001 | .03 | .070 | 1.78 |
| .003 | .08 | .093 | 2 |
| .010 | .25 | .097 | 2.46 |
| .015 | .38 | .200 | 5.08 |
| .018 | .46 | .218 | 5.54 |
| .020 | .51 | .280 | 7.11 |
| .050 | 1.27 | .300 | 7.62 |
| .0585 | 1.49 | .450 | 11.43 |

ELECTRICAL CHARACTERISTICS (initial)

| Dash No. 1/ | Type Designation | Inductance | | Test Freq. MHz | Q Min. at L Max. | SRF Min. MHz | DC Res. at 25°C Max. Ohms | Rated Current Max. mA DC |
|----------------|------------------|----------------|----------------|----------------|------------------|--------------|---------------------------|--------------------------|
| | | L Max. μ H | L Min. μ H | | | | | |
| -1 | LT11V077 | .025 | .020 | 200 | 50 | 1,000 | .02 | 250 |
| -2 | 078 | .051 | .035 | 100 | 40 | 700 | .03 | 250 |
| -3 | 079 | .076 | .040 | 100 | 40 | 615 | .10 | 250 |
| -4 | 080 | .10 | .07 | 25 | 30 | 500 | .3 | 250 |
| -5 | 081 | .15 | .11 | 25 | 30 | 420 | .35 | 200 |
| -6 | 082 | .22 | .16 | 25 | 30 | 400 | .4 | 180 |
| -7 | 083 | .27 | .19 | 25 | 30 | 400 | .5 | 180 |
| -8 | 084 | .33 | .165 | 25 | 30 | 320 | .6 | 140 |
| -9 | 085 | .47 | .34 | 25 | 30 | 290 | .65 | 100 |
| -10 | 086 | .56 | .40 | 25 | 30 | 250 | .75 | 100 |
| -11 | 087 | .68 | .50 | 25 | 30 | 240 | .85 | 100 |
| -12 | 088 | .82 | .59 | 25 | 30 | 180 | .9 | 100 |
| -13 | 089 | 1.0 | .50 | 7.9 | 25 | 140 | .4 | 125 |
| -14 | 090 | 1.5 | 1.0 | 7.9 | 25 | 135 | .8 | 100 |
| -15 | 091 | 2.2 | 1.2 | 7.9 | 25 | 100 | 1.4 | 80 |
| -16 | 092 | 2.7 | 1.95 | 7.9 | 25 | 60 | 1.6 | 75 |
| -17 | 093 | 3.3 | 2.2 | 7.9 | 25 | 60 | 1.8 | 65 |
| -18 | 094 | 4.7 | 2.5 | 7.9 | 25 | 50 | 2.2 | 60 |
| -19 | 095 | 5.8 | 2.9 | 7.9 | 25 | 38 | 2.8 | 58 |
| -20 | 096 | 6.8 | 3.4 | 7.9 | 25 | 36 | 3.0 | 55 |
| -21 | LT11V097 | 8.2 | 4.6 | 7.9 | 25 | 25 | 3.0 | 50 |

1/ The dash number added to the MS Military Standard number constitutes the MS part number for example MS53233-1.

| | | | |
|--|---------------|---|-------------------|
| P A Army - EL | International | TITLE COILS, RADIO FREQUENCY, ENCAPSULATED, VARIABLE, MICRO-MINIATURE, (IRON CORE), TYPES LT11V077 TO LT11V097, INCL. | MILITARY STANDARD |
| Other Cust AF - 85 Navy - EC | | | MS 53233 |
| Procurement Specification MIL-C-15305 | | SUPERSEDES | PAGE 1 OF 3 |

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| ELECTRICAL CHARACTERISTICS (final) | | | | |
|------------------------------------|---|------------------|---------|---------|
| Inspection group | Allowable variation from initial measurements | | | |
| | Inductance | DCR | SRF | Q |
| | Percent | | Percent | Percent |
| Qualification | | | | |
| Group II | ±5 | --- | --- | -10 |
| Group III | ±5 | ±(2% + .001 ohm) | -5 | -10 |
| Group IV | ±5 | ±(2% + .001 ohm) | -10 | -10 |
| Quality Conformance Inspection | | | | |
| Group C | | | | |
| Subgroup I | ±5 | --- | --- | -10 |
| Subgroup II | ±5 | ±(2% + .001 ohm) | -10 | -10 |
| Subgroup III | ±5 | ±(2% + .001 ohm) | -5 | -10 |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is ± .005 (.13 mm).
4. Lead material -1 through -12 is .018 (.46 mm) diameter copper
-13 through -21 is .018 (.46 mm) diameter gold-plated Kovar
5. The test fixture in the diagram following shall be used for electrical measurements. Inductance values are effective inductance as indicated on a HP260A, HP190A, or equivalent Q meter, when tested in the test fixture. Add 5% to Q reading to account for loss of Q in test jig.
6. Polarization during the moisture resistance test is not applicable
7. Shock, specified pulse, method 213, test condition I, is applicable
8. Coils are held rigidly by the body during vibration and mechanical shock testing.
9. Barometric pressure test (test condition C) is applicable
10. Resistance to soldering heat test, per MIL-STD-202, method 216, test condition B, is applicable.
11. For dielectric withstanding voltage, barometric pressure and insulation resistance units shall be placed on flat metal plate with leads insulated from surface. Measurement of dielectric withstanding voltage, barometric pressure and insulation resistance shall be between the leads of the coil connected together and the metal plate.
12. Screw core assembly shall be set at maximum specified inductance value indicated in the electrical characteristics table (initial) prior to all inspection tests. This setting shall not be changed until electrical characteristics (final) measurements are performed.
13. The marking shall be as specified in MIL-C-15305 except that the marking shall be on the unit package or container.
14. This standard takes precedence over the procurement specification referenced herein.
15. Referenced document shall be the issue in effect on the date of invitation for bid.

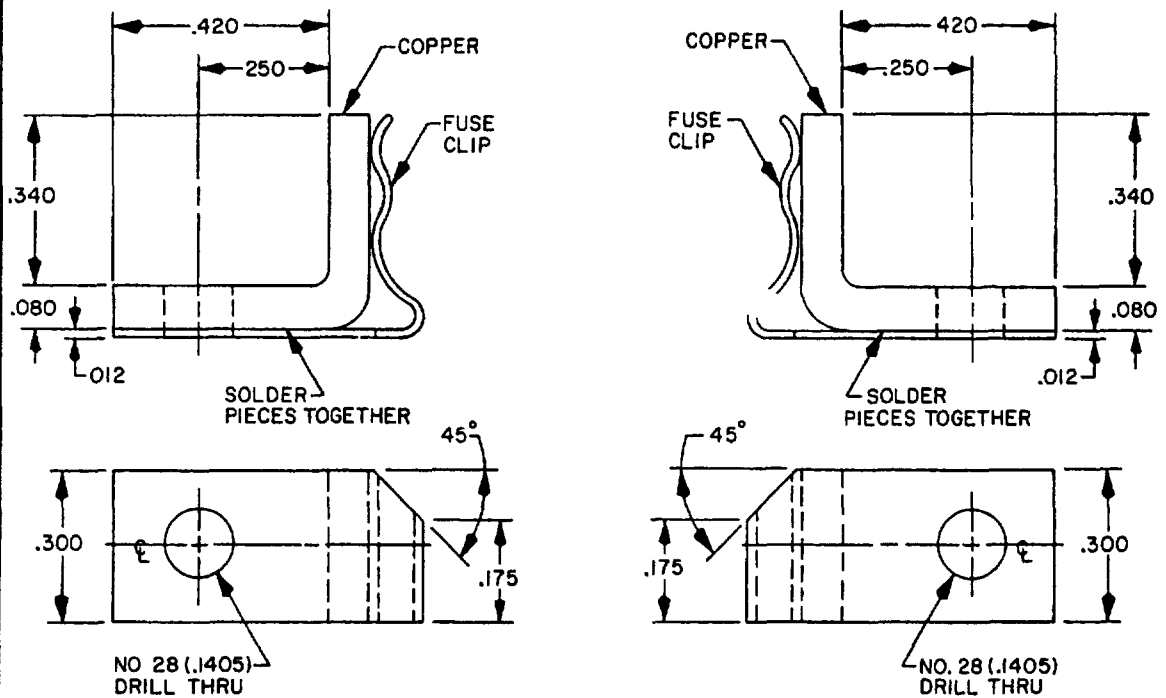
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| P A Army - EL | International interest | TITLE COILS, RADIO FREQUENCY, ENCAPSULATED, VARIABLE, MICRO-MINIATURE, (IRON CORE), TYPES LT11V077 TO LT11V097, INCL. | MILITARY STANDARD |
| Other Cus AF - 85 Navy - EC | | | MS 53233 |
| Procurement Specification MIL-C-15305 | | SUPERSEDES | PAGE 2 OF 3 |

FED SUP CLASS
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TEST FIXTURES FOR ELECTRICAL MEASUREMENTS



SIDE B

SIDE A

| INCHES | MM |
|--------|-------|
| .012 | .30 |
| .080 | 2.03 |
| .1405 | 3.57 |
| .175 | 4.45 |
| .250 | 6.35 |
| .300 | 7.62 |
| .340 | 8.64 |
| .420 | 10.67 |

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P A Army - EL

International
interest

Other Cust

AF - 85

Navy - EC

Procurement Specification

MIL-C-15305

TITLE COILS, RADIO FREQUENCY,
ENCAPSULATED, VARIABLE, MICRO-
MINIATURE, (IRON CORE), TYPES
LT11V077 TO LT11V097, INCL.

SUPERSEDES

MILITARY STANDARD

MS 532 33

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