PERFORMANCE SPECIFICATION SHEET
COILS, RADIO FREQUENCY, CHIP, FIXED, PHENOLIC CORE

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-83446.

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Metric equivalents are in parentheses.
4. Dimensions AA and 8 are measured over the terminals.

FIGURE 1. Dimensions and configuration.
TABLE I.  Electrical characteristics (initial) and dash numbers.

<table>
<thead>
<tr>
<th>Dash number</th>
<th>Inductance (µH) ±10%</th>
<th>Q (min)</th>
<th>Test Frequency (L and Q) (MHz)</th>
<th>Self resonant frequency (min) MHz</th>
<th>DC resistance (max) ohms</th>
<th>Current rating (max) mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>-01</td>
<td>0.10</td>
<td>25</td>
<td>25</td>
<td>640</td>
<td>.14</td>
<td>865</td>
</tr>
<tr>
<td>-02</td>
<td>0.12</td>
<td>25</td>
<td>25</td>
<td>610</td>
<td>.17</td>
<td>785</td>
</tr>
<tr>
<td>-03</td>
<td>0.15</td>
<td>25</td>
<td>25</td>
<td>530</td>
<td>.20</td>
<td>725</td>
</tr>
<tr>
<td>-04</td>
<td>0.18</td>
<td>25</td>
<td>25</td>
<td>510</td>
<td>.22</td>
<td>690</td>
</tr>
<tr>
<td>-05</td>
<td>0.22</td>
<td>25</td>
<td>25</td>
<td>480</td>
<td>.26</td>
<td>635</td>
</tr>
<tr>
<td>-06</td>
<td>0.27</td>
<td>25</td>
<td>25</td>
<td>440</td>
<td>.40</td>
<td>510</td>
</tr>
<tr>
<td>-07</td>
<td>0.33</td>
<td>25</td>
<td>25</td>
<td>410</td>
<td>.50</td>
<td>455</td>
</tr>
<tr>
<td>-08</td>
<td>0.39</td>
<td>25</td>
<td>25</td>
<td>380</td>
<td>.60</td>
<td>415</td>
</tr>
<tr>
<td>-09</td>
<td>0.47</td>
<td>25</td>
<td>25</td>
<td>340</td>
<td>.63</td>
<td>405</td>
</tr>
</tbody>
</table>

TABLE II.  Electrical characteristics (final).

<table>
<thead>
<tr>
<th>Inspection group</th>
<th>Inductance (Percent)</th>
<th>DC resistance (Percent)</th>
<th>Self-resonant frequency (Percent)</th>
<th>Q (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification inspection</td>
<td>±5</td>
<td>±(3% + .001 ohm)</td>
<td>-8</td>
<td>-10</td>
</tr>
<tr>
<td></td>
<td>±5</td>
<td>±(3% + .001 ohm)</td>
<td>-10</td>
<td>-10</td>
</tr>
<tr>
<td></td>
<td>±5</td>
<td>---</td>
<td>---</td>
<td>-15</td>
</tr>
<tr>
<td>Conformance inspection group C</td>
<td>±5</td>
<td>±(2% + .001 ohm)</td>
<td>-10</td>
<td>-15</td>
</tr>
<tr>
<td></td>
<td>±5</td>
<td>±(3% + .001 ohm)</td>
<td>-8</td>
<td>-10</td>
</tr>
</tbody>
</table>
NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information.
3. Shorting bar material is brass.
4. The total fixture and residual inductance is approximately .049 µH (for reference only).

FIGURE 2. General test fixture. (TF-397)
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: 0.19 gram, maximum.

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

Temperature rise (at 90°C): 35°C.

Maximum operating temperature: 125°C.

Altitude: 70,000 feet.

Dielectric withstanding voltage: Method 301 of MIL-STD-202, test voltage 500 volts rms.

Barometric pressure: Method 105, test condition C, MIL-STD-202, (70,000 feet), test voltage 200 volts rms.

Electrical characteristics (initial): See table I.

Electrical characteristics (final): See table II.

Test fixture: Tests shall be performed using test fixtures shown on figures 2 and 3, or equivalent.

Part Identifying Number (PIN): The part number shall be in the following form.

M83446/20- 04 F
Sequentially assigned dash Numbers (see table I and II) Termination finish (see MIL-PRF-83446)

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-83446
MIL-STD-202

Custodians:
Army – CR
Navy - EC
Air Force – 11
DLA - CC

Preparing activity:
DLA – CC
(Project 5950-2006-023)

Review activities:
Army – MI
Navy – AS, OS
Air Force - 19

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