

MIL-T-27/162B  
 9 November 2009  
 SUPERSEDING  
 MIL-T-27/162A  
 31 March 1992

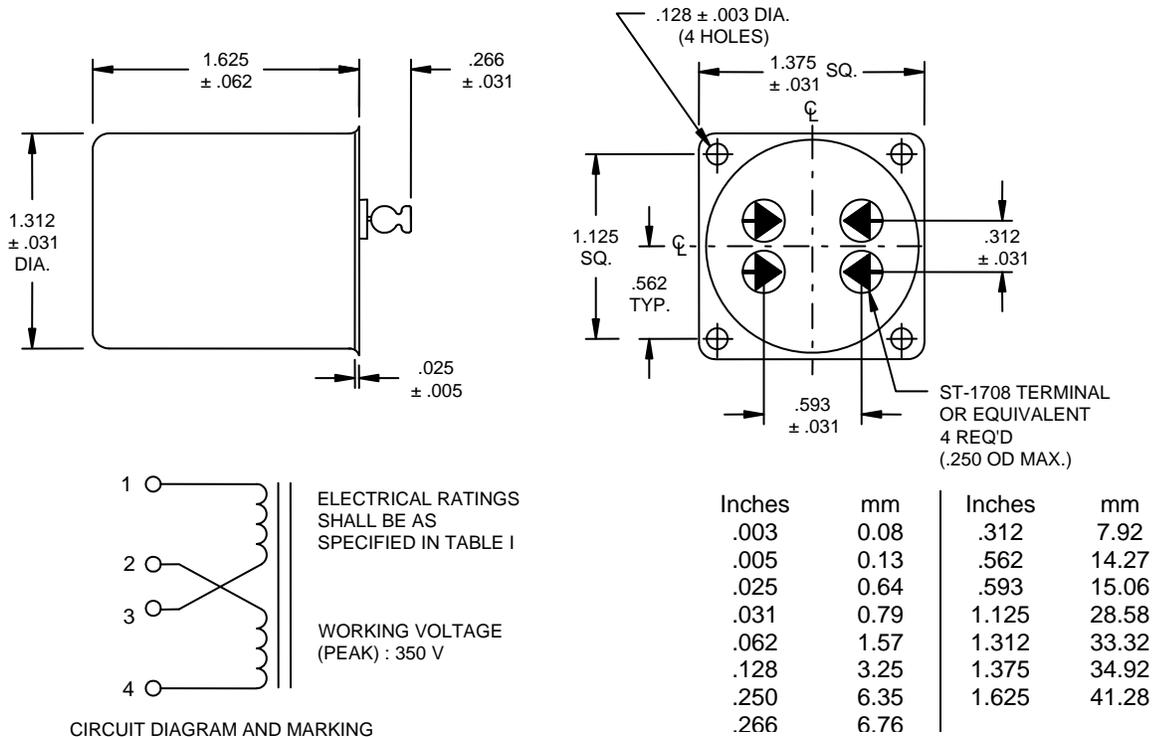
MILITARY SPECIFICATION SHEET

TRANSFORMER AND INDUCTORS  
 (AUDIO, POWER AND HIGH-POWER PULSE),  
 INDUCTORS, AUDIO FREQUENCY, HIGH Q

Inactive for new design  
 after 25 August 1998

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the transformer described herein shall consist of this specification sheet and MIL-PRF-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side of the case.
4. Unless otherwise specified, tolerances on all dimensions shall be ±.016 inch (0.41 mm).

FIGURE 1. Dimensions and configurations

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REQUIREMENTS: (When numbers in parentheses, such as (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings: See table I.

Working voltage (Peak): 350 volts.

Temperature coefficient (-55°C to +130°C): ±2.0 percent.

TABLE I. Electrical ratings. <sup>1/</sup>

Dash number	Inductance <sup>2/</sup> H ±2% (1-4)	Voltage <sup>2/</sup> V (1-4)	DC <sup>3/</sup> resistance (ohms) ±20% (1-4)	Quality factor at 1 V (min)
01	2.0/0.5	1.0/0.5 at 60 Hz	21	24 at 150 Hz
02	16/4.0	1.0/0.5 at 60 Hz	143	23 at 150 Hz
03	40/10	1.0/0.5 at 60 Hz	368	23 at 100 Hz
04	300/75	1.0/0.5 at 60 Hz	3700	23.5 at 100 Hz
05	600/150	1.0/0.5 at 60 Hz	5720	23.5 at 100 Hz

<sup>1/</sup> Qualification testing and approval to M27/162-05 shall be sufficient to grant qualification approval to M27/162-04.

<sup>2/</sup> Values correspond to the windings being connected in series/parallel, respectively.

<sup>3/</sup> DC resistance with 2 and 3 connected.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal encased.

Terminals: Solder terminal, ST-1708 or equivalent, glass to metal seal.

Height: .266 ±.031 inch (6.76 ±0.79 mm).

Diameter: .0250 inch (0.64 mm), maximum.

Weight: 170 grams, maximum.

Terminal strength: [MIL-STD-202](#), method 211, test condition A, 5.0 pounds.

Dielectric withstanding voltage (at sea level): 1,000 volts rms.

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Electrical characteristics:

Inductance: The inductance in table I is measured with 1.0 volt rms, 60 Hz across (1-4) with (2-3) connected, and 0 A dc applied to (1-4).

NOTE: After group III (environmental) and group IV (life) the inductance shall not change more than 15 percent and "Q" shall be 22 minimum.

Marking location: See figure 1.

Part or Identification Number (PIN): M27/162-(dash number from table I).

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. In addition to [MIL-PRF-27](#), this document references the following:

[MIL-STD-202](#)

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

Preparing activity:  
DLA - CC  
(Project 5950-2009-007)

Review activities:  
Army - CR4, MI  
Navy - AS, MC, OS, SH  
Air Force - 19, 99

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>.