

INCH-POUND

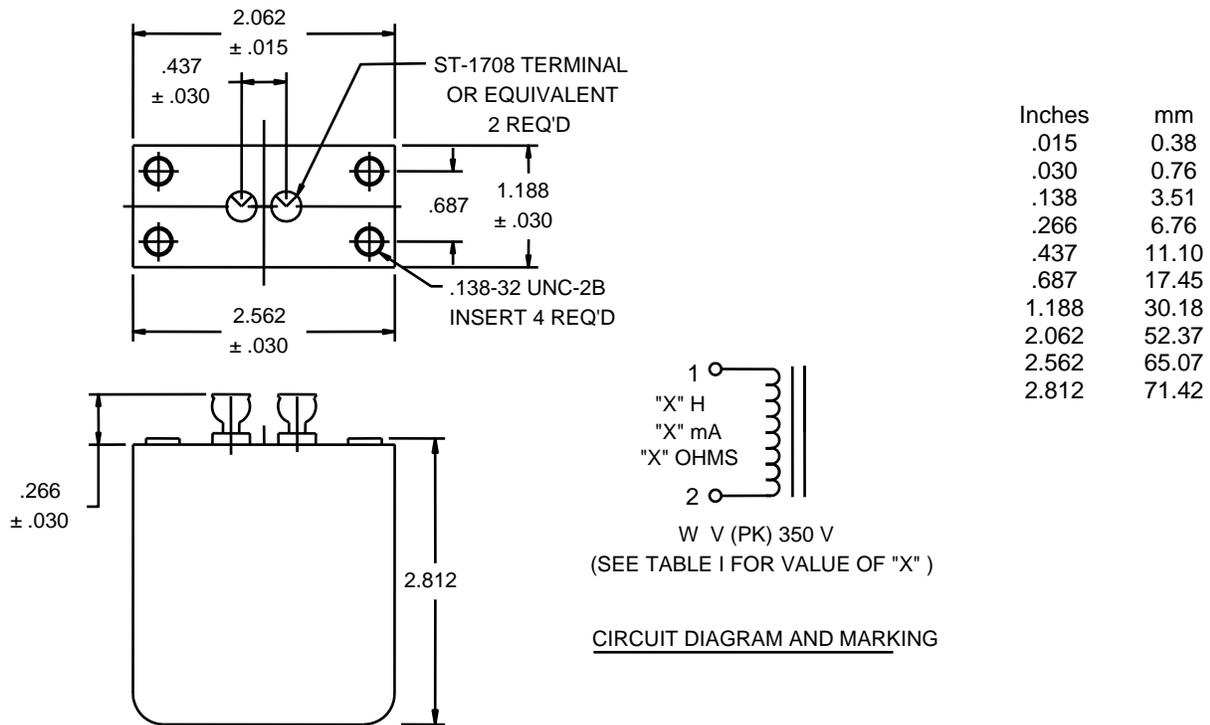
MIL-PRF-27/147E
29 September 2009
SUPERSEDING
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20 July 1993

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS
(AUDIO, POWER, AND HIGH-POWER PULSE),
INDUCTORS, AUDIO, HIGH Q

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 $\pm .015$ inch (0.38 mm).
5. Electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configurations

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TABLE I. Electrical ratings. 1/

Dash No.	Inductance 2/ H $\pm 2\%$ (1-2)	DC 3/ current mA (1-2)	DC resistance ohms $\pm 20\%$ (1-2)	Quality factor (min)	Temperature stability (-55°C to +105°C)	Working voltage (peak) V	Voltage (1-2)
01	0.010	400	0.30	180 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
02	0.030	250	0.90	180 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
03	0.070	170	2.2	200 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
04	0.12	120	3.6	200 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
05	0.50	60	16	200 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
06	1.0	40	28	190 at 3 kHz	$\pm 2\%$	350	1 V at 500 Hz
07	2.0	30	64	165 at 2 kHz	$\pm 2\%$	350	1 V at 500 Hz
08	3.5	22	101	135 at 1.5 kHz	$\pm 2\%$	350	1 V at 500 Hz
09	7.5	16	230	110 at 1 kHz	$\pm 2\%$	350	1 V at 500 Hz
10	12	11	373	100 at 1 kHz	$\pm 2\%$	350	1 V at 500 Hz
11	18	9.0	463	85 at 700 Hz	$\pm 2\%$	350	1 V at 500 Hz
12	25	8.0	680	75 at 700 Hz	$\pm 2\%$	350	1 V at 500 Hz
13	40	6.0	1075	65 at 400 Hz	$\pm 2\%$	350	1 V at 400 Hz
14	60	4.0	1670	65 at 400 Hz	$\pm 2\%$	350	1 V at 400 Hz

1/ Qualification testing and approval to M27/147-14 shall be sufficient to grant qualification approval to M27/147-01 through M27/147-13. For partial qualification, testing to one particular inductance value shall be sufficient to grant qualification approval to any smaller inductance value than what was qualified.

2/ The inductance is measured with 0 A dc applied to (1-2) and at the specified voltage across (1-2).

3/ The amount of dc current that will reduce the inductance a maximum of 8 percent.

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.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal encased.

Terminals: Solder terminal, ST-1708 or equivalent.

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Terminal height: .266 ±.030 inch (6.76 ±0.76 mm).

Weight: 550 grams, maximum.

Altitude: 70,000 feet, maximum.

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

Terminal strength: [MIL-STD-202](#), method 211, test condition A, 5 pounds.

Vibration (high frequency): [MIL-STD-202](#), method 204.

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

Marking location: See figure 1.

Part or Identification Number (PIN): M27/147-(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 5950-2009-018)

Review activities:

Army - AR, 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>.