

MIL-PRF-27/247D  
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 SUPERSEDING  
 MIL-T-27/247C  
 3 August 1993

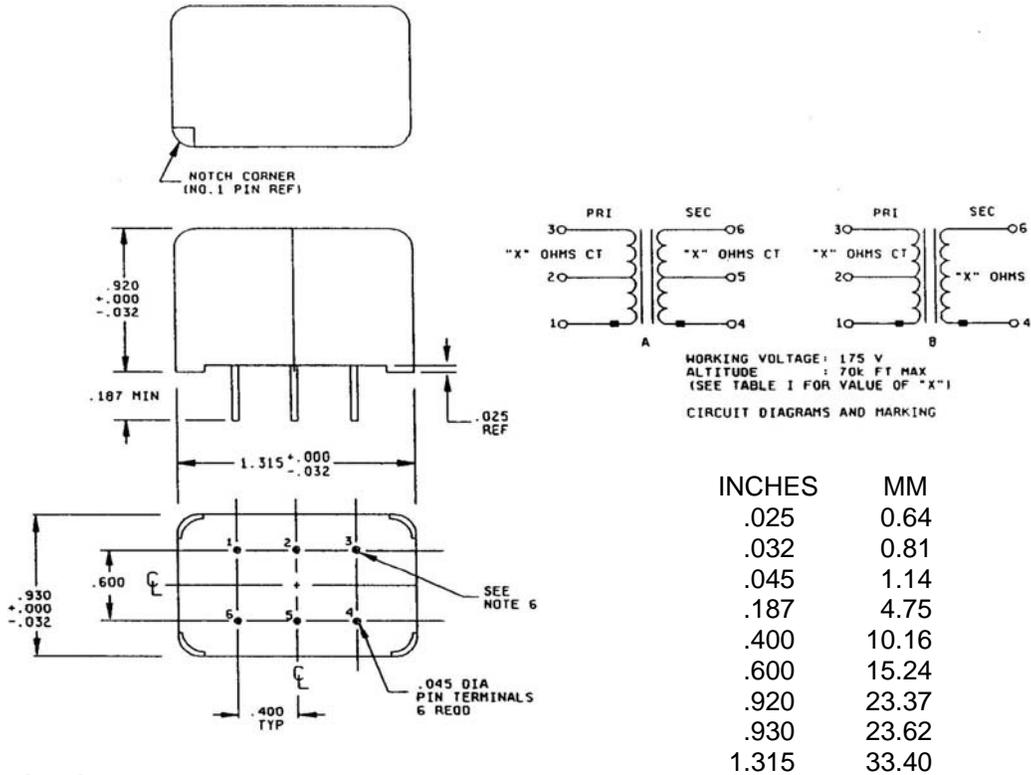
PERFORMANCE SPECIFICATION SHEET

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

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

Inactive for new design  
 after 14 February 1997

The requirements for acquiring the product 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. Unless otherwise specified, tolerance is  $\pm 0.010$  inch (0.25 mm)
4. Marking shall be on the sides and/or top of the case.
5. Electrical values shall be marked as specified in table I, as applicable.
6. Terminal numbers for reference only, not to be marked on unit.

FIGURE 1. Dimensions and configurations.

REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and terminals of the windings.)

Electrical ratings: See table I.

Frequency range: 200 Hz to 10 kHz.

Power level: 2 watts, maximum at 200 Hz.

TABLE I. Electrical ratings.

Dash no.	Circuit diagram	Primary impedance (1-3) ohms	Secondary impedance (4-6) ohms	Primary DCR (1-3) ohms $\pm 20\%$	Secondary DCR (4-6) ohms $\pm 20\%$	Primary unbalanced dc current mA (max)
02	A	10.0 k CT	10.0 k CT	700	1,000.00	1.5
03	A	10.0 k CT	1.5 k CT	700	150.00	1.5
04	A	10.0 k CT	600.0 CT	700	60.00	1.5
05	B	10.0 k CT	3.2	700	0.37	1.5
06	A	1.5 k CT	600.0 CT	105	60.00	4.0
07	A	1.0 k CT	600.0 CT	69	60.00	4.5
08	A	600.0 CT	600.0 CT	43	60.00	6.0
09	A	600.0 CT	250.0 CT	43	24.00	6.0
10	A	600.0 CT	150.0 CT	43	15.00	6.0
11	B	600.0 CT	3.2	43	0.37	6.0

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Encapsulated.

Material: Plastic.

Terminals: Pin (printed circuit).

Material: Brass, tin-plated.

Diameter: .045 inch  $\pm 0.005$ .

Length: .187 inch, maximum.

Weight: .10 pound.

Altitude: 70,000 feet, maximum.

Operating temperature range: -55°C to +130°C.

Salt spray (corrosion): MIL-STD-202, method 101, test condition B.

Terminal strength: MIL-STD-202, method 211, test condition A, 2 pounds.

Dielectric withstanding voltage:

At sea level: 500 volts rms.

At reduced barometric pressure: 300 volts rms.

Electrical characteristics: See table II.

Frequency response:

Reference frequency: 1 kHz.

Polarity: Additive with terminals 1 and 4 connected.

TABLE II. Electrical characteristics.

Dash no.	Frequency response at 200 Hz to 10 kHz. $\pm 1.0$ dB			
	$Z_S$ (1-3)	$Z_L$ (4-6)	$E_{pri}$	Primary dc current (1-3)
	ohms	ohms	volts	mA
02	10.0 k	10.0 k	70.7	0.75
03	10.0 k	1.5 k	70.7	0.75
04	10.0 k	600.0	70.7	0.75
05	10.0 k	3.2	70.7	0.75
06	1.5 k	600.0	27.4	2.00
07	1.0 k	600.0	22.4	2.25
08	600.0	600.0	17.3	3.00
09	600.0	250.0	17.3	3.00
10	600.0	150.0	17.3	3.00
11	600.0	3.2	17.3	3.00

VERIFICATION:

Qualification inspection: Not applicable for this specification sheet.

Quality conformance inspection: Groups A and B test of MIL-PRF-27 shall be applicable.

Marking location: See figure 1.

Part or Identification Number (PIN): M27/247-(dash number from table I).

Substitution data: M27/247-(and dash no. from table I) is substitutable for CAGE 70674, PIN 330-(and dash no. from table I). This in no way implies that the manufacturer's part is substitutable for the military item.

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-27  
MIL-STD-202

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5950-2008-031)

Review activities:

Army - AR, 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>.