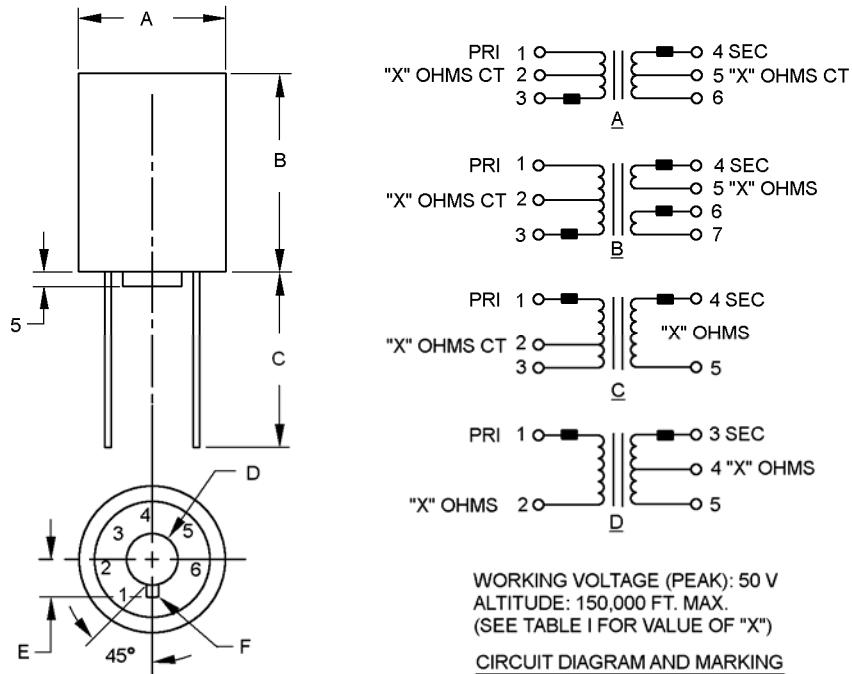


PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, AUDIO FREQUENCY

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-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. Terminals are spaced the same as "TO-5" transistor and micrologic elements.
5. Terminal one located 45° from centerline, as noted.
6. Primary and secondary electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration



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W/ AMENDMENT 1

Ltr	Dimensions	
	Inches	mm
A	.350 DIA MAX	8.89 DIA MAX
B	.562 MAX	14.27 MAX
C	.875 ±.125	22.22 ±3.18
D	.125 ±.010	3.18 ±0.25
E	.077 ±.002	1.96 ±0.05
F	.063 DIA key on moisture barrier offset (optional)	.063 DIA key on moisture barrier offset (optional)

FIGURE 1. Dimensions and configuration – continued.

REQUIREMENTS: (When numbers in parentheses, such as (1.-3) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings: See table I.

Working voltage (peak): 50 volts.

Frequency range: 300 hertz to 20 kilohertz.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Encapsulated.

Altitude: 150,000 feet, maximum.

Terminals: Dumet wire leads.

Material: Tin-lead plated type D4 in accordance with MIL-STD-1276.

Diameter: .016 inch (0.41 mm)

Length: .875 ±.125 inch (22.23 ± 3.18 mm).

Weight: 3.55 grams, maximum.

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

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

Dielectric withstanding voltage:

At sea level: 100 volts rms.

At reduced barometric pressure: 100 volts rms.

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Electrical characteristics: See table II.

No load (centertap unbalance only): ± 1 percent with 5 volts, 5 kilohertz across the primary.

Harmonic distortion: Total harmonic content of the output shall be a maximum 3 percent at the specified power level and primary dc current (see table I).

Insertion loss: At the specified power level (see table I), the insertion loss shall be a maximum of 3.5 dB.

Frequency response: ± 3 dB at the rated source and load impedances (see table II) with 1 milliwatt level output and a reference frequency of 1 kilohertz.

Vibration, high frequency: MIL-STD-202-204, test condition D.

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/76-(dash number from table I).

TABLE I. Electrical ratings. 1/ 2/

Dash No.	Circuit diagram (see figure 1)	Primary impedance (ohms)	Secondary <u>2/</u> impedance (ohms)	Primary DC current (mA)	Power level At 1 kHz (max) (mW)	Primary DC resistance $\pm 25\%$ (ohms)	Secondary DC resistance $\pm 25\%$ (ohms)
01	A	200,000 CT (1-3)	1,000 CT (4-6)	0	25	9,000	100
02	A	20,000 CT 30,000 CT (1-3)	800 CT 1,200 CT (4-6)	0.5	50	830	115
03	A	10,000 CT 12,000 CT (1-3)	10,000 CT 12,000 CT (4-6)	1	100	975	1175
04	D	10,000 CT 12,000 CT (1-2)	2,000 CT 2,500 CT (3-5)	1	100	780	190
05	B	10,000 CT 12,000 CT (1-3)	2,000 SPLIT 2,400 SPLIT (4-7)	1	100	560	230
06	A	10,000 CT 12,000 CT (1-3)	1,500 CT 1,800 CT (4-6)	1	100	780	126
07	C	1,000 CT 1,200 CT (1-3)	50 60 (4-5)	3	100	115	8

1/ Qualification testing and approval to M27/76-01 shall be sufficient to grant qualification approval to M27/76-02 through M27/76-07.

2/ Impedance values written one above the other indicate a range of matching impedances over which the parts will give satisfactory performance as long as the impedance ratio is maintained.

3/ Where windings are listed as SPLIT, one-fourth of the listed impedance is available by paralleling the winding.

TABLE II. Electrical characteristics.

Dash No.	Frequency response ± 3 dB At 300 Hz to 20 kHz and 1 mW		Resonance resonant frequency (min) (kHz)	Polarity: Additive With terminals (below) connected
	Z _s (ohms)	Z _L (ohms)		
01	200,000 (1-3)	1,000 (4-6)	100	3 and 4
02	20,000 (1-3)	800 (4-6)	100	3 and 4
03	10,000 (1-3)	10,000 (4-6)	400	3 and 4
04	10,000 (1-2)	2,000 (3-5)	400	2 and 3
05	10,000 (1-3)	2,000 (4-7)	400	(3-4) and (5-6)
06	10,000 (1-3)	1,500 (4-6)	400	3 and 4
07	1,000 (1-3)	50 (4-5)	400	3 and 4

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Referenced documents. In addition to MIL-PRF-27, this document references the following:

MIL-STD-202-204, MIL-STD-202-211, MIL-STD-1276

Custodians:

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

Preparing activity:
DLA – CC

(Project 5950-2016-019)

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 this information above using the ASSIST Online database at <https://assist.dla.mil>.