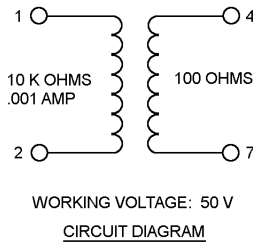
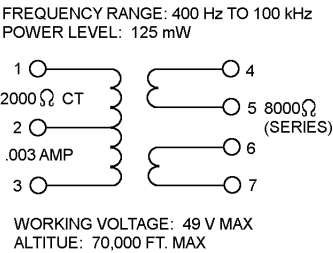
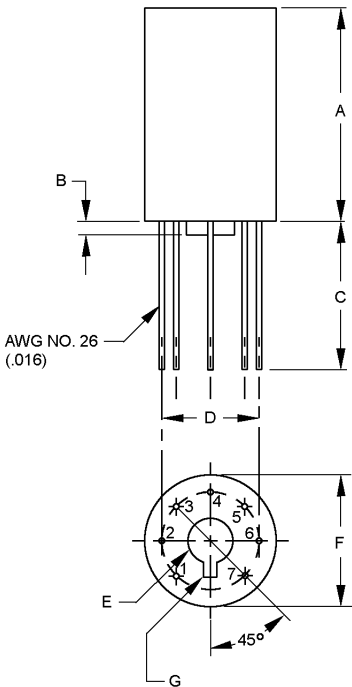


MIL-PRF-27/97D
w/AMENDMENT 2
20 June 2024
SUPERSEDING
MIL-PRF-27/97D
w/AMENDMENT 1
1 November 2016

PERFORMANCE SPECIFICATION SHEET
TRANSFORMER, AUDIO FREQUENCY, SUB-MINIATURE

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](#).



Dim	Inches	mm
A	.360 Max.	9.14 Max.
B	.035 ±.005	0.89 ±0.13
C	1.000 ±.250	25.40 ±6.35
D	.200 Dia.	5.08 Dia.
E	.125 ±.010	3.18 ±0.25
F	.350 Dia. Max.	8.89 Dia. Max.
G	.031 ±.002 Keyway Optional	0.79 ±0.05 Keyway Optional

- NOTES:
- 1. Dimensions are in inches.
 - 2. Metric equivalents are given for general information.
 - 3. The number of terminals shall be as shown in circuit diagram.
 - 4. Terminals are spaced the same as "TO-76" transistors and micrologic elements.
 - 5. For vibration and shock test the specimen shall be rigidly mounted on a printed circuit board.

FIGURE 1. Dimensions and configurations



MIL-PRF-27/97D
W/AMENDMENT 2

REQUIREMENTS:

Electrical ratings:

Primary power level: 125 mW.

TABLE I. Electrical ratings.

Dash number	Circuit diagram	Primary impedance (ohms)	Secondary impedance (ohms)	Primary dc current (mA)	Primary dc resistance ± 25 percent (ohms)	Secondary dc resistance ± 25 percent (ohms)	Working voltage (volts)
01	A	2,000 CT	(4-5) 8,000 (6-7) 8,000	3	200	(4-(5+6)-7) 450	49
02	B	10 k	100	1	1,000	10	50

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Terminals: Pin for printed circuit.

Material: Type D, in accordance with [MIL-STD-1276](#).

Diameter: .016 inch (0.41 mm).

Length: 1.000 $\pm$.250 inch (25.4 $\pm$ 6.35 mm).

Weight: 2.4 grams maximum.

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

Altitude: 70,000 feet, maximum.

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.

Electrical characteristics:

Harmonic distortion: Total harmonic content of output 5 percent at 1 kHz.

No load (CT voltage balance only): With 10 volts, 10kHz applied (1-3), unbalance (4-5) and (6-7) shall be 3 percent, maximum.

Self-resonant frequency: See table II.

Polarity: See table II.

Vibration (high frequency): [MIL-STD-202-204](#), test condition B

MIL-PRF-27/97D
W/AMENDMENT 2

TABLE II. Electrical characteristics.

Dash number	Frequency response ± 3 dB at 400 Hz to 100 kHz and 1 mW			Resonance, Self resonant frequency (min) (kHz)	Polarity (additive with terminals Connected)
	Z _s	Z _L	E _s (volts)		
01	2 k Ω	8 k Ω	3	40	3-4 and 5-6
02	10 k Ω	100 k Ω	6.32	---	2-4

Part or Identification Number (PIN): M27/97- (dash number from table II).

TABLE III. Substitution data ^{1/}

PIN M27/97-	CAGE	Manufacturer's PIN
01	31669	C265
02	31669	C3375

^{1/} These transformers are substitutable for the manufacturer's PINs. This in no way implies that the manufacturer's PIN is substitutable for the military PIN. This information is not intended to be complete.

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

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

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.

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

Preparing activity:
DLA - CC

(Project 5950-2024-012)

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

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 <https://assist.dla.mil>.