

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, AUDIO FREQUENCY

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

The complete requirements for procuring the product described herein shall consist of this document and the latest issue of specification MIL-PRF-27.

Part number M27/1-01 is inactive for new design after 4 April 1985. For new design use M27/1-02.

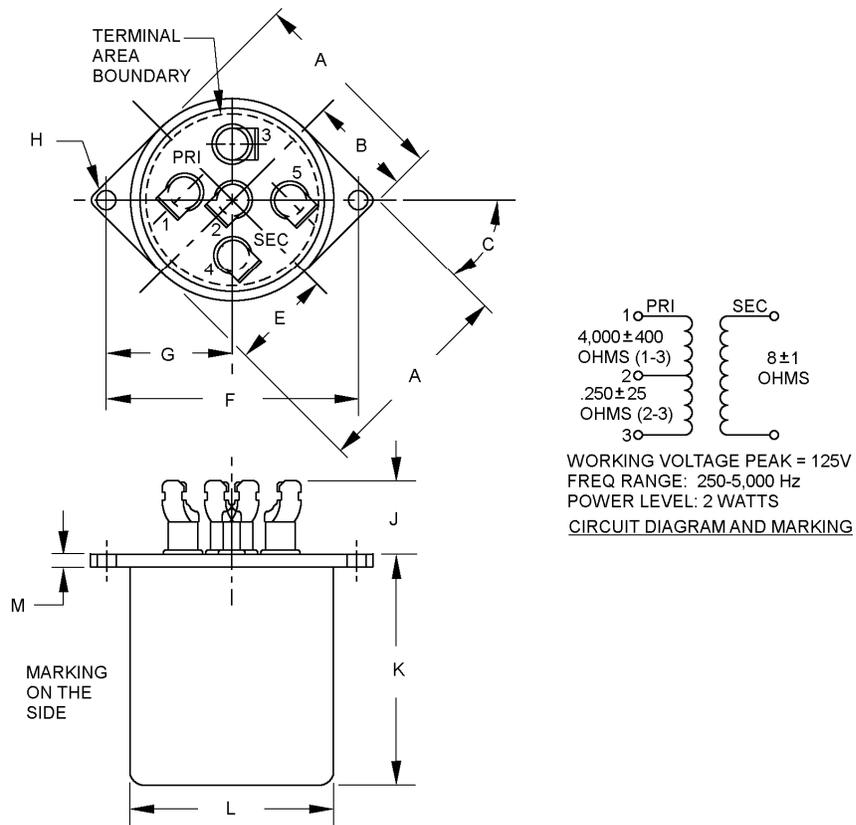


FIGURE 1. Dimensions and configurations



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LTR	Dimensions	
	Inches	Millimeters
A	1.400 Max	35.56 Max
B	.680 ±.020	17.3 ±.508
C	45° ±1°	45° ±1°
E	.660 ±.020	16.8 ±.508
F	1.593 ±.010	40.46 ±.254
G	.796 -.005	20.22 -.127
H	.156 DIA ±.002 (2 HOLES)	3.96 DIA ±.051 (2 HOLES)
J	.490 Max	12.45 Max
K	1.695 ±.025	43.05 ±.635
L	1.332 Max	33.83 Max
M	.041 ±.005	1.04 ±.127

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configurations – Continued.

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

Electrical rating:

Primary power level: 2 W at 1 kHz.

Working voltage (peak): 125 volts.

Design, configuration, and physical dimensions: See figure 1.

Material: Metal encased, steel.

Weight: 4 ounces, maximum.

Duty cycle: Continuous.

Terminal: Solder lug, number 18 AWG, standoff type.

Temperature range: See table I.

Terminal strength: MIL-STD-202-211, test condition A, 5 pounds.

Dielectric withstanding voltage: MIL-STD-202-301, test voltage, 500 V rms.

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Electrical characteristics:

Harmonic distortion: Not more than 1 percent at 2 W  $\pm$ 1 dB at 1 kHz.

Primary impedance: 4,000  $\pm$ 400 ohms (1-3), tapped at 250  $\pm$ 25 ohms (2-3).

Secondary load impedance: 8  $\pm$ 1 ohms (4-5).

DC resistance (DCR):

Primary DCR: 157 ohms  $\pm$ 25 percent.

Secondary DCR: 0.56 ohm  $\pm$ 25 percent.

Frequency response:

Range: 250 Hz to 5,000 Hz at rated power, flat within  $\pm$ 2 dB; reference frequency 1 kHz;  
Test voltage 88.5 V rms (1-3).

Insertion loss: 0.5 dB maximum, with 2 W input at 1 kHz.

Polarity: Additive, with terminals 3 and 4 connected.

Temperature rise: See table I.

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

Shock (specified pulse): MIL-STD-202-213, test condition H.

Part or identifying number (PIN): M27/1-(dash number from table I).

TABLE I. Temperature characteristics.

Dash Number	Temperature range	Maximum operating temperature With rated power at 300 Hz	
		Temperature rise	Ambient temperature
-01	-55°C to +105°C	40°C maximum	65°C
-02	-55°C to +130°C	40°C maximum	90°C

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.

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

MIL-STD-202-204, MIL-STD-202-211, MIL-STD-202-213, MIL-STD-202-301

Custodians:

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

Preparing Activity:

DLA – CC

(Project 5950-2015-023)

Review activities:

Army – AR, CR4  
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 <https://assist.dla.mil>.