

INCH-POUND

MIL-PRF-27/72B
2 June 2003
SUPERSEDING
MIL-PRF-27/72A
18 May 1977

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.

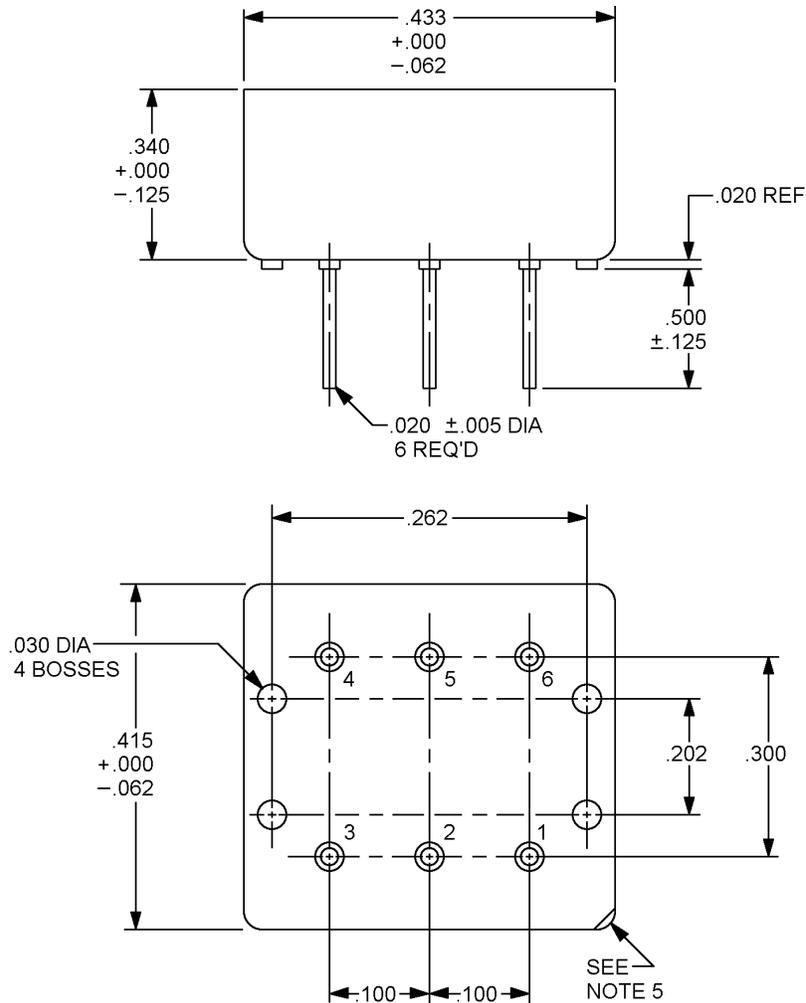
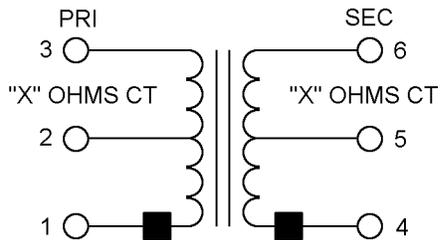


FIGURE 1. Dimensions and configuration.

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Inches	mm	Inches	mm
.005	0.13	.262	6.65
.020	0.51	.300	7.62
.030	0.76	.340	8.64
.062	1.57	.415	10.54
.100	2.54	.433	11.00
.125	3.18	.500	12.70
.202	5.13		



WORKING VOLTAGE: 175 V
 ALTITUDE: 70 kFT MAX
 (SEE TABLE I FOR VALUE OF "X")

CIRCUIT DIAGRAMS AND MARKING

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.005 (0.13 mm).
4. Marking shall be on sides and/or top of case.
5. Beveled corner shall be 45° and identifies pin no. 1.
6. Electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration – Continued.

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

Electrical ratings: See table I.

Working voltage: 175 volts.

Frequency range: 300 hertz to 100 kilohertz (except 300 hertz to 40 kilohertz for M27/72-01).

TABLE I. Electrical ratings. 1/

Dash number	Primary impedance ohms (1-3)	Secondary impedance ohms (4-6)	Primary DCR ohms ± 25%	Primary power level at 300 Hz mW (max)	Secondary DCR ohms ± 25%	Primary unbalanced dc current max (mA)
01	100 k CT	1,000 CT	6,800	10	110	0.2
02	25 k CT	1,000 CT	4,300	50	140	1.2
03	25 k CT	600 CT	4,300	50	90	1.25
04	10 k CT	10 k CT	1,350	50	1,350	1.0
05	10 k CT	1,500 CT	1,350	50	170	1.0
06	10 k CT	600 CT	1,350	50	90	1.0
07	1,000 CT	600 CT	140	50	90	6.25
08	600 CT	600 CT	90	50	90	8.0
09	600 CT	60	90	50	10	8.0

1/ Qualification testing and approval to M27/72-01 and all tests in accordance with table VII of MIL-PRF-27 for M27/72-02 shall be sufficient to grant qualification approval to M27/72-01 through M27/72-09, inclusive. Qualification by similarity can be obtained for MIL-PRF-27/67, /68, /69, /70, and /71 by the submission of two samples each, (of dash number 01 for MIL-PRF-27/67, /68, /69, /70, and /71) which shall be subject to group A, subgroup II tests, with zero defects allowed.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Encapsulated.

Material: Plastic.

Terminals: Pin (printed circuit).

Material: Nickel, tin plated.

Diameter: .020 ± .005 inch.

Length: .500 ± .125 inch.

Weight: 3.97 grams maximum.

Altitude: 70,000 feet, maximum.

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

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

Dielectric withstanding voltage:

At sea level: 500 volts rms.

At barometric pressure: 300 volts rms.

Electrical characteristics: See table II.

Frequency response.

Reference: 1 kilohertz.

TABLE II. Electrical characteristics.

Dash number	Frequency response at 200 Hz to 20 kHz \pm 1 dB			
	Z _s (1-3) ohms	Z _L (4-6) ohms	E _L volts	Primary dc current (1-3) mA
01 <u>1/</u>	100 k	1 k	10	0.1
02	25 k	1 k	5.0	0.6
03	25 k	600	5.0	0.63
04	10 k	10 k	2.0	0.5
05	10 k	1,500	2.0	0.5
06	10 k	600	2.0	0.5
07	1 k	600	1.0	3.12
08	600	600	0.6	4.0
09	600	60	0.6	4.0

1/ Frequency response is 300 hertz to 40 kilohertz \pm 2 dB.

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/72- (dash number from table I).

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Custodians:

Army – CR
Navy – EC
Air Force – 11

Preparing activity:
DLA – CC

(Project 5950-1103)

Review activities:

Army – AR, CR4, MI
Navy – AS, MC, OS, SH
Air Force – 19, 99