

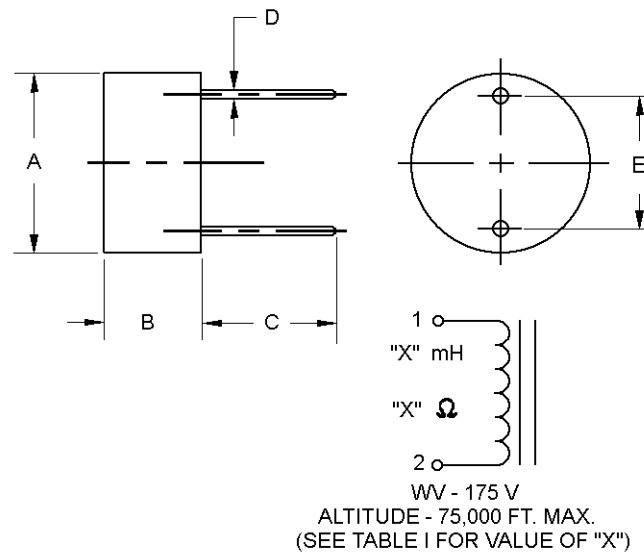
MIL-PRF-27/241B
w/AMENDMENT 4
7 July 2023
SUPERSEDING
MIL-PRF-27/241B
w/AMENDMENT 3
1 April 2018

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS (AUDIO, POWER AND HIGH-POWER PULSE INDUCTORS, AUDIO FREQUENCY, HIGH Q

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

The requirements for acquiring the product described herein shall consist of this specification sheet and [MIL-PRF-27](#).



CIRCUIT DIAGRAM AND MARKING

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. Electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration.



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Dim	Inches	mm
A	.468 MAX	11.89 MAX
B	.281 MAX	7.14 MAX
C	1.250 ±.125	31.75 ±3.18
D	.025 DIA 2 Required	.64 DIA 2 Required
E	.328 ±.016	8.33 ±0.41

FIGURE 1. Dimensions and configurations – continued.

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.

TABLE I. Electrical characteristics. 1/

Dash number	2/ Inductance mH (1-2) ±2%	3/ DC current mA (1-2) max	DC Resistance ohms (max) (1-2)	Quality factor (min)	Temperature Stability (-55°C to +105°C)	Working voltage (peak) volts	Voltage (1-2)
01	0.6	90	1.9	70 at 100 kHz	±1%	175	0.1 volt at 1 kHz
02	1.5	57	4.9	70 at 100 kHz	±1%	175	0.1 volt at 1 kHz
03	2.5	44	8.2	70 at 100 kHz	±1%	175	0.1 volt at 1 kHz
04	6.0	28	19.0	70 at 100 kHz	±1%	175	0.1 volt at 1 kHz
05	10.0	22	32.0	65 at 50 kHz	±1%	175	0.1 volt at 1 kHz
06	15.0	18	49.0	60 at 50 kHz	±1%	175	0.1 volt at 1 kHz
07	25.0	14	82.0	55 at 50 kHz	±1%	175	0.1 volt at 1 kHz
08	40.0	11	132.0	48 at 50 kHz	±1	175	0.1 volt at 1 kHz

1/ Qualification testing and approval to M27/241-08 shall be sufficient to grant qualification approval to M27/241-01 through M27/241-07.

2/ The inductance is measured with 0 Adc applied to (1-2) and at the specified voltage across (1-2).

3/ The amount of DC current that will reduce the inductance a maximum of 7%.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Diallyl phthalate.

Terminals: 0.025 tin-lead plated type D (Dumet) or N (Nickel) in accordance with [MIL-STD-1276](#).

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Weight: 0.08 ounce, maximum.

Altitude: 75,000 feet, 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: 500 volts rms.

At reduced barometric pressure: 300 volts rms.

Vibration (high frequency): [MIL-STD-202-204](#).

Marking location: See figure 1.

Part or Identification Number (PIN): M27/241-(dash number from table I).

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 5950-2023-005)

Review activities:

Army - AR, 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>.