

INCH-POUND

MIL-PRF-27/164D
w/AMENDMENT 3
1 June 2023
SUPERSEDING
MIL-PRF-27/164D
w/AMENDMENT 2
1 April 2018

PERFORMANCE SPECIFICATION SHEET

TRANSFORMER AND INDUCTORS (AUDIO, POWER, AND HIGH-POWER PULSE) INDUCTORS, HIGH Q

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](#).

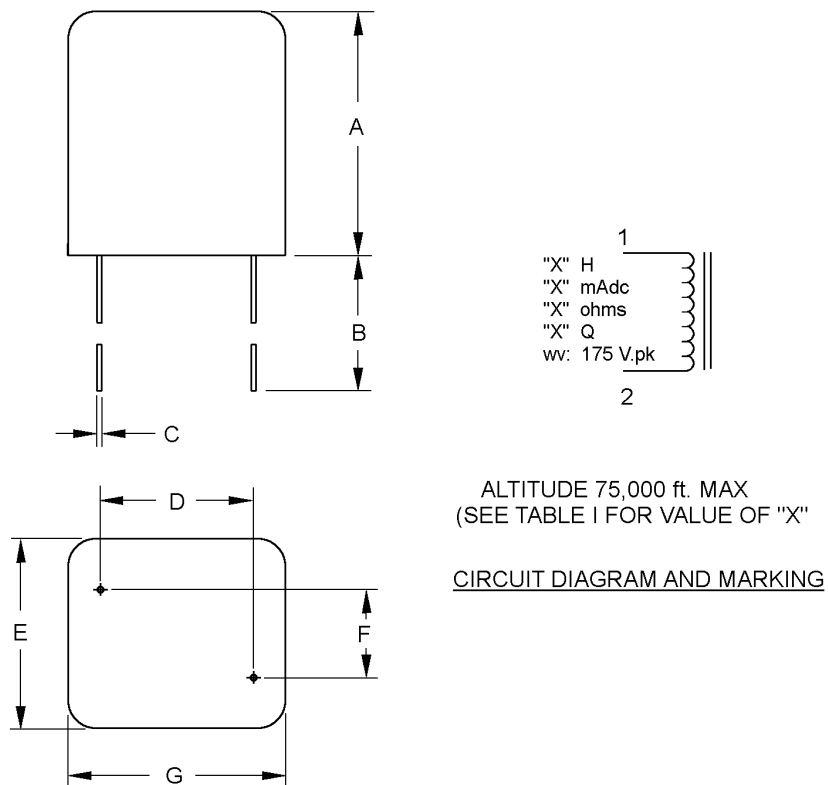


FIGURE 1. Dimensions and configurations.

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FSC 5950



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Dim	Inches	mm
A	.563 ±.031	14.30 ±.79
B	1.000 ±.125	25.40 ±3.18
C	.025 Dia.	.64 Dia.
D	.344 ±.016	8.74 ±.41
E	.438 ±.031	11.13 ±.079
F	.203 ±.016	5.16 ±.41
G	.484 ±.031	12.29 ±.079

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.

FIGURE 1. Dimensions and configurations – continued.

REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings: See table I.

Working voltage (peak): 175 volts peak.

Design and construction:

Dimensions and configurations: See figure 1.

Case: Metal.

Material: Mu metal.

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

Weight: .3 ounces maximum.

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

Altitude: 75,000 feet maximum.

Terminal strength: [MIL-STD-202-211](#), test condition A, 2.0 pounds.

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TABLE I. Electrical ratings.

Dash number <u>1/</u>	(1-2) Inductance ±3% H <u>2/ 3/</u>	(1-2) DC current (max) mA <u>4/</u>	DC resistance at 25°C (1-2) ±20% ohms	(1-2) Quality factor		
				Q min	Voltage (rms)	Frequency (Hz)
01	.15	12	33	18	1	2000
02	.25	9	55	18	1	2000
03	.40	7	90	18	1	2000
04	.70	5	135	18	1	2000
05	1.4	3	210	18	1	1500
06	2.5	1	210	16	1	800
07	4.0	0.7	340	16	1	800
08	6.0	0.6	530	16	1	800
09	10.0	0.5	850	16	1	800
10	25.0	0.3	2300	16	1	800
11	60.0	0.2	5160	16	1	800

- 1/ Qualification testing and approval to M27/164-11 shall be sufficient to grant qualification approval to M27/164-01 through M27/164-11.
- 2/ Dash numbers 01 through 05, inductance is measured at 1 kHz, 1 V rms, 0 dc.
- 3/ Dash numbers 06 through 11, inductance is measured at 400 Hz, 1 V rms, 0 dc.
- 4/ The dc current is that amount of dc that will reduce the inductance by approximately 5 percent (8 percent max.).

Dielectric withstanding voltage: See table I.

At sea level: 500 V rms.

At reduced barometric pressure: 300 V rms.

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

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/164-(dash number from table I).

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

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Custodians:

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

Preparing activity:
DLA – CC

(Project 5950-2023-003)

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