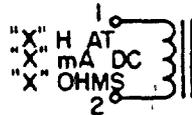
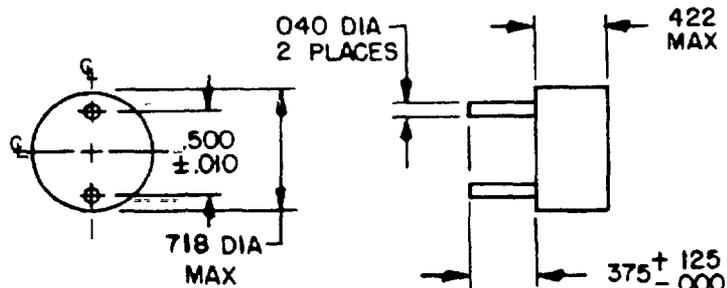


MILITARY SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS
 (AUDIO, POWER, AND HIGH-POWER PULSE),
 INDUCTORS, AUDIO FREQUENCY, HIGH Q, TF5R20ZZ

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

The complete requirements for procuring the inductors described herein shall consist of this document and the latest issue of Specification MIL-T-27



ALTITUDE: 70 k FT MAX
 WORKING VOLTAGE (PEAK): 350 V
 (SEE TABLE I FOR VALUE OF "X")
CIRCUIT DIAGRAM AND MARKING

INCHES	MM
010	25
040	1 02
125	3 18
375	9 52
422	10 72
500	12 70
718	18 24

NOTES

- 1 Dimensions are in inches
- 2 Metric equivalents are given for general information only and are based upon 1 00 inch = 25 4 mm
- 3 Marking shall be on the top of the case opposite terminals and on the side of the case
- 4 Electrical values shall be marked as specified in table I as applicable

FIGURE 1 Dimensions and configuration

Ⓐ denotes changes

MIL-T-27/161A

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) 350 volts
 Temperature coefficient (-55°C to +105°C) ± 1 0%

TABLE I Electrical ratings 1/

Dash No	Inductance H $\pm 1\%$ (1-2)	Current 2/ (mA DC) (max) (1-2)	DC resistance (ohms) $\pm 20\%$ (at 25°C) (1-2)	Quality factor (min)
01	0.05	25	27	70 at 15 kHz
02	0.10	18	51	70 at 15 kHz
03	0.25	11	136	65 at 15 kHz
04	0.50	8	243	65 at 10 kHz
05	0.75	7	355	60 at 10 kHz
06	1.0	6	500	55 at 10 kHz
07	1.2	5	560	55 at 10 kHz
08	2.0	4	870	43 at 5 kHz
09	3.0	3.5	1340	40 at 5 kHz
10	5.0	3	2500	33 at 5 kHz

- 1/ Qualification testing and approval to M27/161-10 shall be sufficient to grant qualification approval to M27/161-01 through M27/161-09
 2/ The amount of DC current that will reduce the inductance a maximum of 7%

Design and construction

Dimensions and configuration See figure 1

Case Encapsulated

Material Epoxy

Altitude 70,000 feet maximum

(A) Terminals Type N-4, tin-lead plated, in accordance with MIL-STD-1276

Height 0.375 inch, minimum

Diameter 0.040 inch ± 0.005

Weight 8.50 grams, maximum

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

Terminal strength Method 211 of MIL-STD-202, test condition A, 2.0 pounds

Vibration (high frequency) MIL-STD-202, method 204

Dielectric withstanding voltage

At sea level 1,000 volts rms

At barometric pressure 440 volts rms

Electrical characteristics

Inductance The inductance in table I is measured with 1.0 volt rms, 1 kHz across (1-2), and 0 A dc applied to (1-2)

Marking location See figure 1

Part number M27/161 - (dash number from table 1)

Custodians

Army - ER
Navy - EC
Air Force - 85

Review activities

Army - AR
Navy - SH, OS
Air Force - 11, 17, 99
DLA - ES

User activities

Army - AR, WC
Navy - MC, AS
Air Force - 19

Preparing activity

Army - ER

Agent

DLA - ES

(Project 5950-0569-19)

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DOCUMENT IDENTIFIER (Number) AND TITLE

MIL-T-27/161A TRANSFORMERS AND INDUCTORS

(AUDIO POWER AND HIGH POWER PULSE), INDUCTORS, AUDIO FREQUENCY, HIGH Q,
NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER
TF5R20ZZ

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C. REASON FOR RECOMMENDED CHANGE(S)

2 REMARKS

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1 OCT 76

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