

NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

INCH-POUND

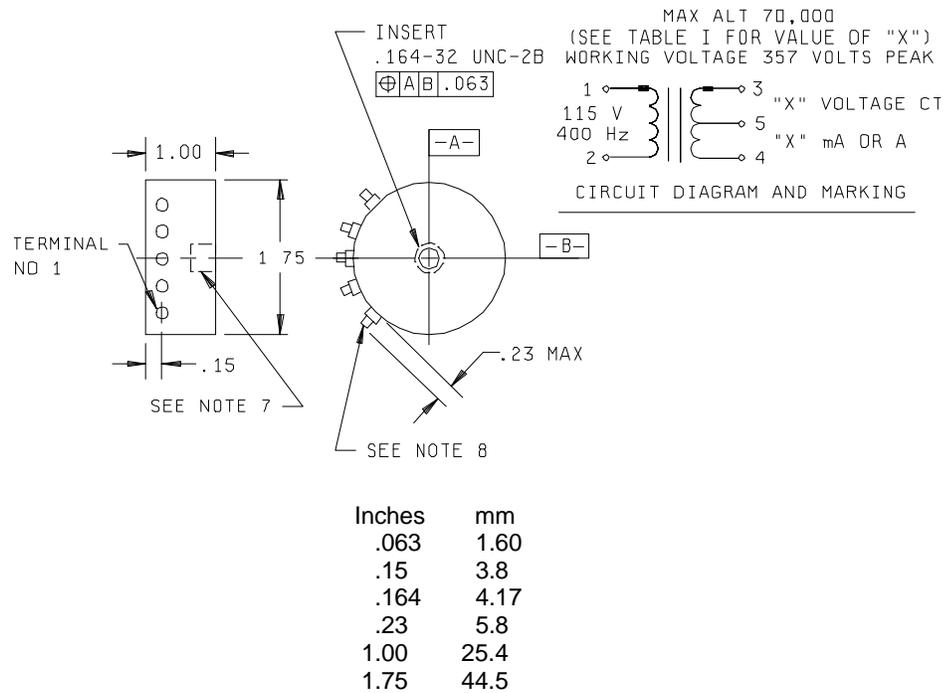
MIL-PRF-27/351D
 22 January 1992
 SUPERSEDING
 MIL-T-27/351C
 29 March 1989

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 25 VOLT-AMPERES, 400 HZ, TF5S03ZZ

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

The requirements for acquiring the transformer described herein shall consist of this specification and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information.
3. Dimensional tolerance shall be ± 0.03 (0.8 mm) unless otherwise specified.
4. Marking shall be on the top case.
5. Terminals shall be identified by numbers 1 through 5 marked on the top of case above each terminal.
6. Secondary electrical values shall be marked as specified in table I, as applicable.
7. The insert shall be 5 full threads minimum.
8. Terminal spacing is $.35 \pm 0.03$ (8.9 \pm 0.8 mm).

FIGURE 1. Dimensions and configuration.

(D) denotes changes

MIL-T-27/351D

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.

Primary voltage (1-2): 115 volts \pm 10 percent, 400 hertz \pm 5 percent.

Working voltage: 357 volts, peak.

Design and construction:

Dimensions and configuration: See figure 1.

Weight: .33 pound, maximum.

Duty cycle: Continuous.

Case: Epoxy fiberglass.

Altitude: 70,000 feet, maximum.

Operating temperature range: -55°C to $+130^{\circ}\text{C}$.

Terminals: Feedthrough.

Terminal height: 0.23 inch, maximum.

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

Dielectric withstanding voltage:

At sea level: 1000 volts, rms.

At reduced barometric pressure: 1.25 times the peak working voltage specified.

Electrical characteristics:

No load: With 115 volts, 400 hertz across (1-2); current in (1-2) shall not exceed 25 milliamperes rms.

Rated load: With 115 volts, 400 hertz across (1-2) and a resistive load with current as specified in table I in (3-4), the voltage across (3-4) shall be as specified in table I.

Efficiency: 90 percent minimum at rated load.

Polarity: Additive with terminals 2 and 3 connected.

MIL-T-27/351D

Regulation: $\frac{\text{Voltage (no load)} - \text{Voltage (rated load)}}{\text{Voltage (rated load)}} \times 100$ (Shall not exceed 10 percent.)

Temperature rise: 40°C maximum with 115 volts, 400 hertz across (1-2) at an ambient temperature of 90°C.

Marking location: See figure 1.

Part or Identifying Number (PIN) example:

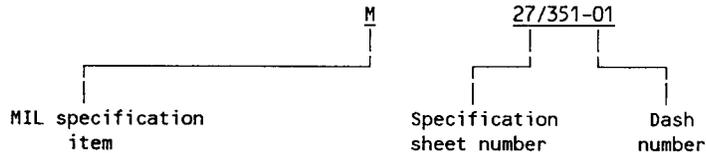


TABLE I. Electrical ratings.

Dash number M27/351	Secondary voltage ^{1/} (3-4) (V rms) ±5%	Secondary current (3-4) (amps rms)
-01	5.0	5.00
-02	7.0	3.57
-03	10.0	2.50
-04	12.0	2.08
-05	14.0	1.79
-06	17.0	1.47
-07	24.0	1.04
-08	28.0	0.89
-09	34.0	0.74
-10	115.0	0.21
-11	26.0	0.890

(D)

^{1/} One-half of the listed output voltage is available between pins 3 and 5 or 4 and 5.

MIL-T-27/351D

QUALITY ASSURANCE PROVISIONS:

Extent of qualification:

- ① Qualification testing and approval to M27/350-11 and M27/354-09 shall be sufficient to grant qualification approval to MIL-T-27/350 through MIL-T-354 inclusive, all parts.
- ① Qualification testing and approval to M27/351-11 shall be sufficient to grant qualification approval to M27/351-01 through M27/351-11.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities:

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

User activities:

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

Preparing activity:

Army - ER

Agent:

DLA - ES

(Project 5950-0780)