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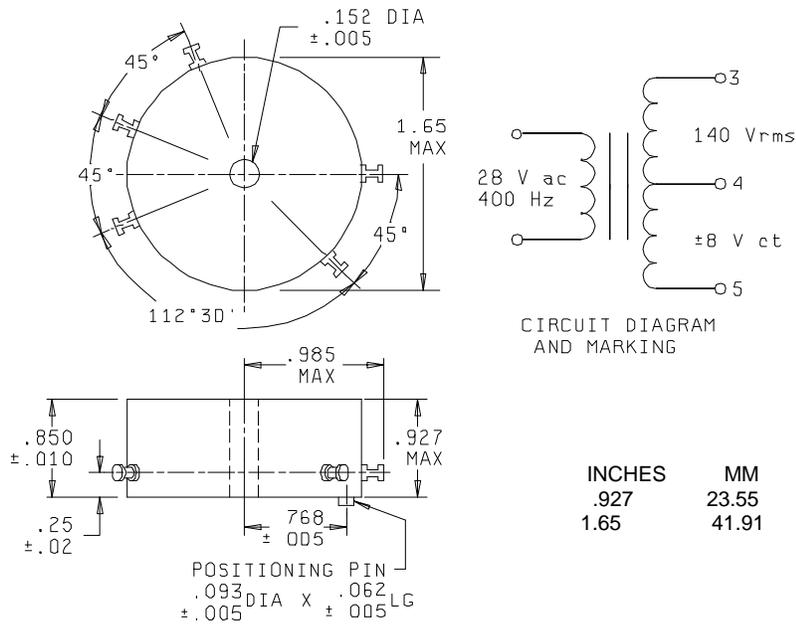
MIL-PRF-27/33
6 August 1975

PERFORMANCE SPECIFICATION SHEET

TRANSFORMER, POWER, STEP-UP, TF5S03ZZ319

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

The complete requirements for procuring the transformers described herein shall consist of this specification and the latest issue of MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Marking shall be on the side of the case.
4. Terminal angular position tolerance is $\pm 1^\circ$.

FIGURE 1. Dimensions and configuration.

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

Electrical ratings:

Primary voltage,
(1-2): 28 volts rms, 400 Hz \pm 5 percent.

Secondary voltage,
(3-4): 70 volts rms, \pm 4 volts rms.
(3-5): 140 volts rms, \pm 8 volts rms centertap.
(4-5): 70 volts rms, \pm 4 volts rms.

Working voltage,
(1-2): 200 volts maximum.
(3-5): 200 volts maximum.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Encapsulated.

Material: Diallyl-phthalate.

Terminals: Turret, solder type, brass, hot tinned dip.
Terminal height: 0.156 inch \pm 0.005

Weight: 4 ozs.

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

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

Dielectric withstanding voltage (at sea level): 560 volts rms.

Electrical characteristics:

No load: With 28 volts rms, 400 Hz across (1-2);

Voltage across (3-4): 70 volts rms \pm 4 volts, and the voltage across (4-5):
70 volts rms \pm 4 volts.

Rated load: With 28 volts, 400 Hz across (1-2), the voltage across (3-5) shall be
140 volts rms centertap, \pm 8 volts.

DC resistance,
(1-2): 16.5 ohms \pm 20 percent.
(3-4): 97 ohms \pm 20 percent.
(4-5): 112 ohms \pm 20 percent.

Polarity: Additive with 2 and 3 connected.

Temperature rise: 30°C maximum.

Marking location: See figure 1.

Part number: M27/33-01.

Custodians:

Army - EL
Navy - EC
Air Force - 85

Review activities:

Army - EL, MI, **SG**
Navy - EC, SH, OS
Air Force - 11, 17, 80
DSA - ES

User activities:

Army - MU, WC, **SG**, ME
Navy - MC, AS
Air Force - 19

Preparing activity:

Army - EL

Agent:

DSA - ES

(Project 5950-0490)