

MILITARY SPECIFICATION SHEET

TRANSFORMER, POWER, STEPDOWN, TF5S03ZZ

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

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

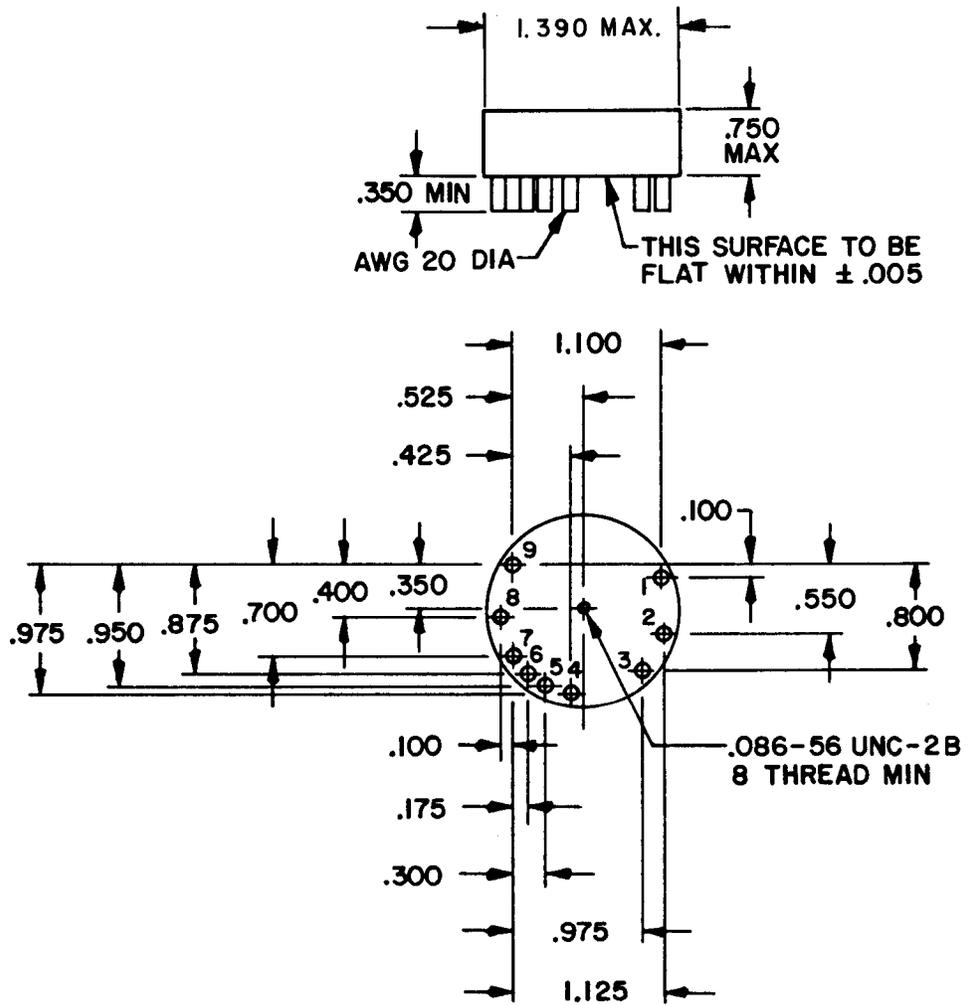
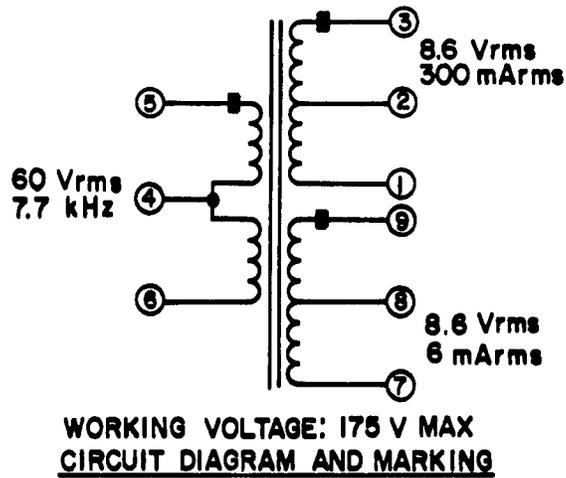


FIGURE 1. Dimensions and configuration.



INCHES	MM	INCHES	MM
.086	2.18	.700	17.78
.100	2.54	.750	19.05
.175	4.44	.800	20.32
.300	7.62	.875	22.22
.350	8.89	.950	24.13
.400	10.16	.975	24.76
.425	10.80	1.100	27.94
.525	13.34	1.125	28.58
.550	13.97	1.390	35.31

**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. Unless otherwise specified, tolerance is  $\pm 0.005$  (.13 mm).
4. Marking shall be on the top of the case.

FIGURE 1. Dimensions and configuration - 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:

Primary voltage (5-6): 60 volts rms, 7.7 kilohertz.

Primary current: .5 ampere rms.

Primary power: 30 volts ampere.

Secondary voltage:

(1-3): 8.6 volts rms, 300 milliamperes rms.

(7-9): 8.6 volts rms, 6 milliamperes rms.

Working voltage: 175 volts, maximum.

DC resistance:

(1-3): .043 ohm.

(7-9): .09 ohm.

(5-6): .49 ohm.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Encapsulated.

Material: Epoxy.

Terminals: Pin type.

Material: Type S with tin, lead, or lead alloy coating, in accordance with QQ-W-343.

Diameter: AWG 20 (.032 inch).

Height: .350 inch minimum.

Weight: 3 ounces.

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

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

Dielectric withstanding voltage (at sea level): 1,000 volts rms.

Electrical characteristics:

No load: With 60 volts rms and 7.7 kilohertz in (5-6):

Current in (5-6): 22 milliamperes, maximum.

Power in (5-6): 1.2 watts, maximum.

Voltage across (5-6): 60 volts rms.

Voltage across (1-3): 8 volts rms  $\pm 1$  percent.

Voltage across (7-9): 8 volts rms  $\pm 1$  percent.

Rated load: With 60 volts rms and 7.7 kilohertz (5-6):

Voltage across (1-3): 8.6 volts rms  $\pm 5$  percent.

Voltage across (7-9): 8.6 volts rms  $\pm 5$  percent.

Polarity: Additive with terminals 1 and 9 connected.

Temperature rise: 40°C with 60 volts rms, 7.7 kilohertz across (5-6) at an ambient temperature of 125°C.

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

Shock (specified pulse): MIL-STD-202 method 213, test condition A.

Marking location: See figure 1.

Part number: M27/192-01.

**Custodians:**

Army - EL  
Navy - EC  
Air Force - 85

**Review activities:**

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

**User activities:**

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

**Preparing activity:**

Army - EL

**Agent:**

DLA - ES

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