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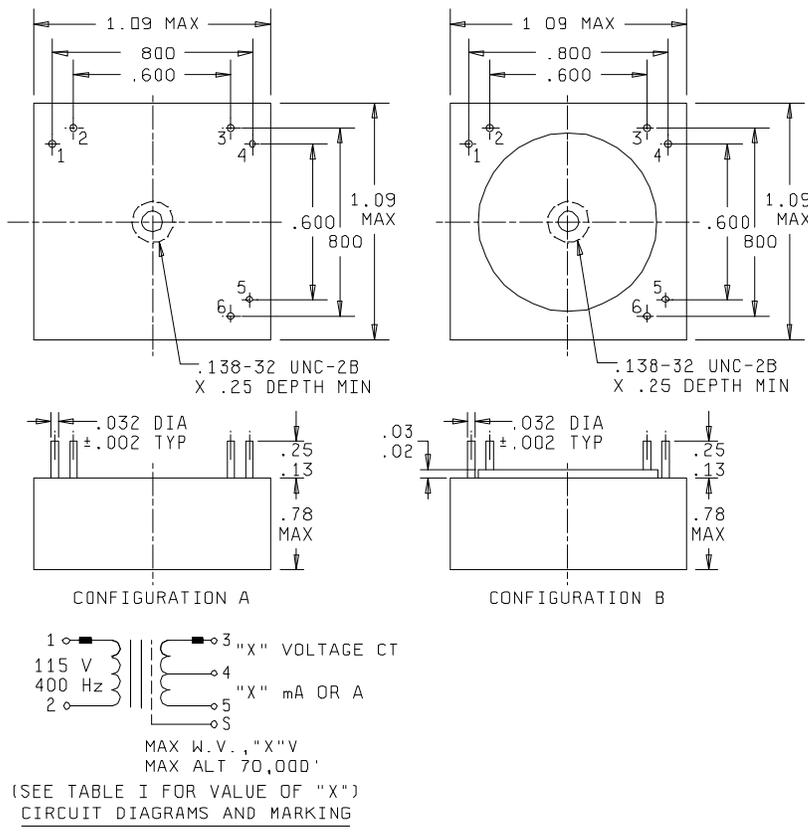
MIL-PRF-27/40B
 7 February 1984
 SUPERSEDING
 MIL-T-27/40A
 20 October 1976

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 3 VOLT AMPERES, 400 HZ,
 ELECTROSTATIC SHIELDED, TF5S03ZZ532 TO TF5S03ZZ575, INCLUSIVE

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

The complete requirements for acquiring 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 are given for general information only.
3. Tolerance on terminal position dimensions is ± 0.005 (0.13 mm).
4. Marking shall be on the side of the case.
5. A white dot shall be marked on the side opposite the terminals, over terminal 1, in addition to the terminal marking shown.
6. Secondary electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration.

(B) denotes changes

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 Hz \pm 5 percent.

Design and construction:

Dimensions and configuration: See figure 1.

Weight: 1.65 ounces, maximum.

Duty cycle: Continuous.

Case: Plastic encapsulated.

Material: Plastic.

Altitude: 70,000 feet, maximum.

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

Terminals: Printed circuit pins - tinned brass.

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

Dielectric withstanding voltage:

At sea level: 2.8 times the maximum working voltage specified in table I.

At reduced barometric pressure: 1.25 times the maximum working voltage specified in table I.

Electrical characteristics:

No load: With 115 volts, 400 Hz across (1-2): Current in (1-2) shall not exceed 6 mA rms.

Rated load: With 115 volts, 400 Hz across (1-2) and a resistive load with current as specified in table I in (3-5), the voltage across (3-5) shall be as specified in table I.

Efficiency: 75 percent minimum at rated load.

Electrostatic shielding: The voltage ratio shall be a minimum of 5 to 1 at 20 kHz.

Polarity: Additive with terminals 2 and 3 connected.

Regulation:
$$\frac{\text{Voltage (no load)} - \text{Voltage (rated load)}}{\text{Voltage (rated load)}} \times 100$$
 shall not exceed 12 percent.

Phase shift: 1.0 electrical degree between primary and secondary voltage at rated load, maximum.

Temperature rise: 20°C , maximum.

Vibration: MIL-STD-202, method 204, test condition D.

Marking location: See figure 1.

Ⓑ QUALITY ASSURANCE PROVISIONS:

Extent of qualification:

MIL-T-27/40B

Qualification testing and approval to M27/37-44 A or B, M27/42-44 A or B, and M27/46-44 A or B shall be sufficient to grant qualification approval to MIL-T-27/37 through MIL-T-27/47 inclusive, all parts.

Qualification testing and approval to M27/40-44 shall be sufficient to grant qualification approval to M27/40-01 through M27/40-44.

Part number example:

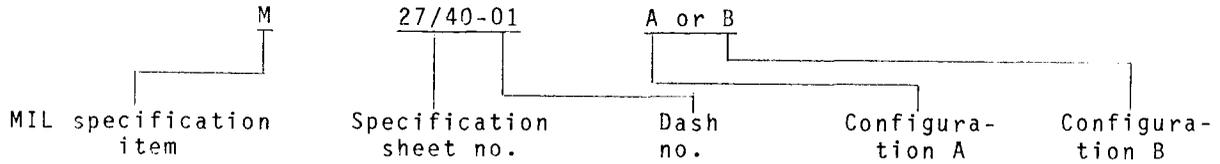


TABLE I. Electrical ratings.

Dash no.	Type designation	Secondary voltage (3-5) (V rms) ±3%	Secondary current (3-5) (amps rms)	Working voltage (V rms max)
01	A or B	532	6	325
02	"	533	6.3	"
03	"	534	7	"
04	"	535	7.5	"
05	"	536	8	"
06	"	537	9	"
07	"	538	10	"
08	"	539	11	"
09	"	540	12	"
10	"	541	12.6	"
11	"	542	13	"
12	"	543	15	"
13	"	544	16	"
14	"	545	18	"
15	"	546	20	"
16	"	547	22	"
17	"	548	24	"
18	"	549	26	"
19	"	550	28	"
20	"	551	30	"
21	"	552	33	"
22	"	553	36	"
23	"	554	39	"
24	"	555	43	"
25	"	556	47	"
26	"	557	51	"
27	"	558	56	"
28	"	559	62	"
29	"	560	68	"
30	"	561	75	"
31	"	562	82	"
32	"	563	91	"
33	"	564	100	"
34	"	565	110	"
35	"	566	115	"
36	"	567	120	"
37	"	568	130	"
38	"	569	150	"
39	"	570	180	"
40	"	571	200	440
41	"	572	220	440
42	"	573	240	440
43	"	574	270	580
44	"	575	300	580

Custodians:

Army - ER
Navy - EC
Air Force - 85

Preparing activity:
Army - ER

(Project 5950-0623-6)

Review activities:

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

User activities:

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

Agent:

DLA - ES