

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

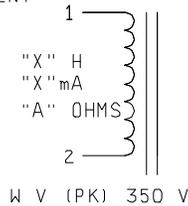
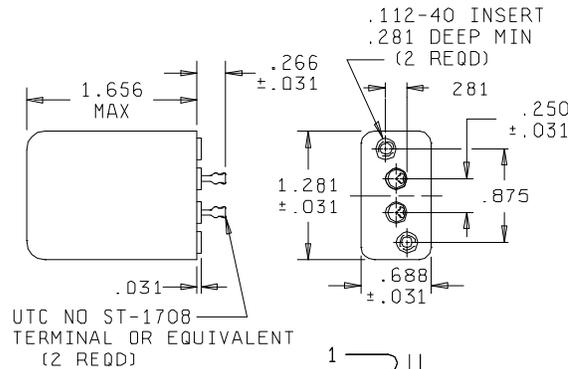
MIL-PRF-27/205B
 2 August 1993
 SUPERSEDING
 MIL-T-27/205A
 8 APRIL 1992

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS (AUDIO, POWER, AND HIGH-POWER PULSE),
 INDUCTORS, AUDIO FREQUENCY, HIGH Q, TF4R20YY

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

The requirements for acquiring the product described herein shall consist of this specification sheet 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.



W V (PK) 350 V
 (SEE TABLE I FOR VALUE OF "X")
 CIRCUIT DIAGRAM AND MARKING

Inches	mm
.031	0.79
.112	2.84
.250	6.35
.266	6.76
.281	7.14
.688	17.48
.875	22.22
1.281	32.54
1.656	42.06

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side of the case.
4. Tolerances on all dimensions shall be ± 0.016 inch (0.41 mm), unless otherwise specified.

FIGURE 1. Dimensions and configurations.

(B) denotes change.

TABLE I. Electrical ratings. 1/

Dash no.	Inductance <u>2/</u> H (1-2) ±1%	DC <u>3/</u> current mA(max) (1-2)	DC resistance ohms ±20% (1-2)	Quality factor (min) at 1 V	Temperature stability (-55°C to +105°C)	Working voltage (peak) V	Test voltage (1-2)
01	0.007	250	0.6	115 at 5 kHz	±1.0%	350	1 V at 1 kHz
02	0.012	200	1.1	125 at 5 kHz	±1.0%	350	1 V at 1 kHz
03	0.020	150	1.6	125 at 5 kHz	±1.0%	350	1 V at 1 kHz
04	0.030	125	2.5	130 at 5 kHz	±1.0%	350	1 V at 1 kHz
05	0.050	100	3.9	135 at 5 kHz	±1.0%	350	1 V at 1 kHz
06	0.070	80	5.7	145 at 5 kHz	±1.0%	350	1 V at 1 kHz
07	0.120	60	9.1	145 at 5 kHz	±1.0%	350	1 V at 1 kHz
08	0.2	50	16	120 at 3 kHz	±1.0%	350	1 V at 1 kHz
09	0.3	40	25	118 at 3 kHz	±1.0%	350	1 V at 1 kHz
10	0.5	30	39	110 at 3 kHz	±1.0%	350	1 V at 1 kHz
11	0.7	25	58	105 at 3 kHz	±1.0%	350	1 V at 1 kHz
12	1.0	20	84	105 at 3 kHz	±1.0%	350	1 V at 1 kHz
13	1.5	17	130	95 at 3 kHz	±1.0%	350	1 V at 1 kHz
14	2.5	13	215	85 at 3 kHz	±1.0%	350	1 V at 1 kHz
15	4.0	10	335	50 at 1 kHz	±1.0%	350	1 V at 500 Hz
16	6.0	9	510	45 at 1 kHz	±1.0%	350	1 V at 500 Hz
17	10	7	840	45 at 1 kHz	±1.0%	350	1 V at 500 Hz
18	15 ±2%	5	1350	42 at 1 kHz	±1.0%	350	1 V at 500 Hz
19	22 ±2%	4	1960	40 at 1 kHz	±1.0%	350	1 V at 500 Hz
20	35 ±2%	3	3200	40 at 1 kHz	±1.0%	350	1 V at 500 Hz

- ⓑ 1/ Qualification testing and approval to M27/205-20 shall be sufficient to grant qualification approval to M27/205-01 through M27/205-19. For partial qualification, testing to one particular inductance value shall be sufficient to grant qualification approval to any smaller inductance value than what was qualified.
- 2/ The inductance is measured with 0 A dc applied to (1-2) and at the specified test voltage across (1-2).
- 3/ The amount of dc current that will reduce the inductance a maximum of 8 percent.

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

Electrical ratings: See table I.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal enclosed.

Terminals: Solder terminal, United Transformer Co. Number ST-1708, or equivalent.

Terminal height: .266 ±.031 inch.

Weight: 120 grams, maximum.

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

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

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

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

Marking location: See figure 1.

Part or Identifying Number (PIN) example: M27/205-(dash number from table I.)

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities:

Army - MI
Navy - OS, SH
Air Force - 17, 99

User activities:

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

Preparing activity:

Army - ER

Agent:

DLA - ES

(Project 5950-0819)