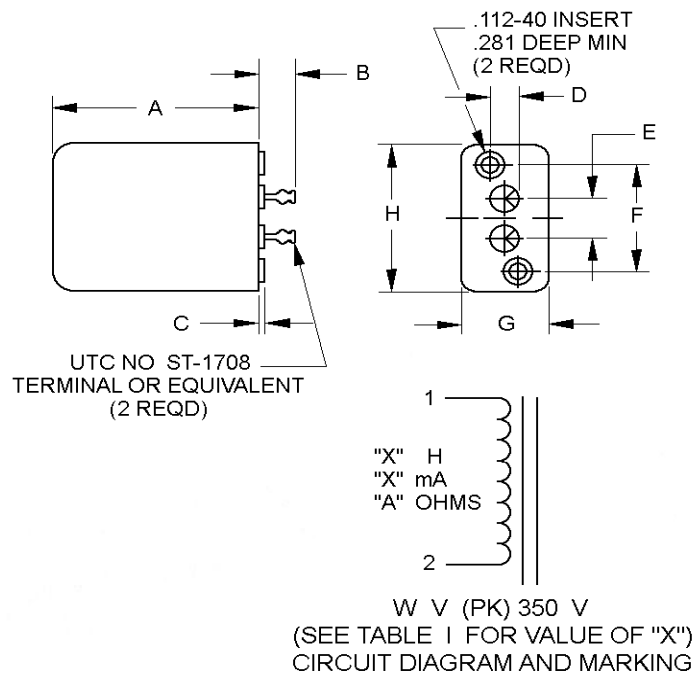


PERFORMANCE SPECIFICATION SHEET

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

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

The requirements for acquiring the products described herein shall consist of this specification and [MIL-PRF-27](#).



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for 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 configuration.



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Dim	Inches	mm
A	1.656 MAX	42.06 MAX
B	.266 ±.031	6.76 ±0.79
C	.031 MAX	0.79 MAX
D	.281	7.14
E	.250 ±.031	6.35 ±0.79
F	.875	22.22
G	.688 ±.031	17.48 ±0.79
H	1.281 ±.031	32.54 ±0.79

FIGURE 1. Dimensions and configurations – continued.

TABLE I. Electrical ratings. 1/

Dash no.	Inductance 2/ H (1-2) ±1%	DC 3/ 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	±2.0%	350	1 V at 1 kHz
02	0.012	200	1.1	125 at 5 kHz	±2.0%	350	1 V at 1 kHz
03	0.020	150	1.6	125 at 5 kHz	±2.0%	350	1 V at 1 kHz
04	0.030	125	2.5	130 at 5 kHz	±2.0%	350	1 V at 1 kHz
05	0.050	100	3.9	135 at 5 kHz	±2.0%	350	1 V at 1 kHz
06	0.070	80	5.7	145 at 5 kHz	±2.0%	350	1 V at 1 kHz
07	0.120	60	9.1	145 at 5 kHz	±2.0%	350	1 V at 1 kHz
08	0.2	50	16	120 at 3 kHz	±2.0%	350	1 V at 1 kHz
09	0.3	40	25	118 at 3 kHz	±2.0%	350	1 V at 1 kHz
10	0.5	30	39	110 at 3 kHz	±2.0%	350	1 V at 1 kHz
11	0.7	25	58	105 at 3 kHz	±2.0%	350	1 V at 1 kHz
12	1.0	20	84	105 at 3 kHz	±2.0%	350	1 V at 1 kHz
13	1.5	17	130	95 at 3 kHz	±2.0%	350	1 V at 1 kHz
14	2.5	13	215	85 at 3 kHz	±2.0%	350	1 V at 1 kHz
15	4.0	10	335	50 at 1 kHz	±2.0%	350	1 V at 500 Hz
16	6.0	9	510	45 at 1 kHz	±2.0%	350	1 V at 500 Hz
17	10	7	840	45 at 1 kHz	±2.0%	350	1 V at 500 Hz
18	15 ±2%	5	1350	42 at 1 kHz	±2.0%	350	1 V at 500 Hz
19	22 ±2%	4	1960	40 at 1 kHz	±2.0%	350	1 V at 500 Hz
20	35 ±2%	3	3200	40 at 1 kHz	±2.0%	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.

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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: $.266 \pm .031$ inch.

Weight: 120 grams, maximum.

Operating temperature range: -55°C to $+105^{\circ}\text{C}$.

Terminal strength: [MIL-STD-202-211](#), test condition A, 5 pounds.

Vibration (high frequency): [MIL-STD-202-204](#).

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.)

Referenced documents. In addition to [MIL-PRF-27](#), this document references the following:

MIL-STD-202-204, MIL-STD-202-211

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA – CC

(Project 5950-2024-020)

Review activities:

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

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of this information above using the ASSIST Online database at <https://assist.dla.mil>.